NEW ISSUE – BOOK–ENTRY–ONLY **Ratings: (See "Ratings" herein)**

In the opinion of Stradley Ronon Stevens & Young, LLP, Philadelphia, Pennsylvania, Bond Counsel, assuming continuing compliance by the Commission with certain covenants to comply with provisions of the Internal Revenue Code of 1986, as amended (the "Code"), and any applicable regulations thereunder, interest on the 2019A Subordinate Bonds is not includable in gross income under Section 103(a) of the Code and is not an item of tax preference for purposes of the federal alternative minimum income tax. See "TAX MATTERS" in this Official Statement. Other provisions of the Code may affect purchasers and holders of the 2019A Subordinate Bonds. See "Federal Income Tax Treatment of Series 2019A Subordinate Bonds" herein for a brief description of these provisions.

Under the laws of the Commonwealth of Pennsylvania, the 2019A Subordinate Bonds shall be free from taxation for State and local purposes within the Commonwealth of Pennsylvania, but this exemption does not extend to gift, estate, succession or inheritance taxes or any other taxes not levied or assessed directly on the 2019A Subordinate Bonds or the interest thereon. Under the laws of the Commonwealth of Pennsylvania, profits, gains or income derived from the sale, exchange or other disposition of the 2019A Subordinate Bonds shall be subject to State and local taxation within the Commonwealth of Pennsylvania For a more complete description, see "TAX MATTERS."

PENNA TURN PIKE

PENNSYLVANIA TURNPIKE COMMISSION

$722,970,000
Turnpike Subordinate Revenue Bonds, Series A of 2019

Dated: Date of Delivery **Due: December 1, as shown on inside front cover**

The $722,970,000 aggregate principal amount of the Pennsylvania Turnpike Commission Turnpike Subordinate Revenue Bonds, Series A of 2019 (the "**2019A Subordinate Bonds**"), dated the date of delivery, are being issued pursuant to that certain Subordinate Trust Indenture, dated as of April 1, 2008 (the "**Original Subordinate Indenture**") between the Pennsylvania Turnpike Commission (the "**Commission**") and Wells Fargo Bank, N.A. (successor trustee to TD Bank, National Association), as trustee (the "**Trustee**") as heretofore amended and supplemented (collectively, the "**Original Indenture**"), and as further supplemented by that certain Supplemental Trust Indenture No. 30, dated as of June 1, 2019 ("**Supplemental Subordinate Indenture No. 30**" and, collectively with the Original Indenture, the "**Subordinate Indenture**"), all pursuant to, among other things, an Act of the General Assembly of Pennsylvania approved July 18, 2007, PL. 169, No. 44 ("Act 44"), the Act of November 25, 2013, P.L. 974, No. 89 ("**Act 89**"), and various other acts of the General Assembly of Pennsylvania.

The 2019A Subordinate Bonds will mature on December 1 of the years and bear interest from their delivery date at the rates shown on the inside cover page hereof, calculated on the basis of a year of 360 days consisting of twelve 30-day months. Interest on the 2019A Subordinate Bonds will be payable on each June 1 and December 1, commencing on December 1, 2019. So long as Cede & Co. is the registered owner of the 2019A Subordinate Bonds, payments of principal of and interest on the 2019A Subordinate Bonds will be made directly by the Trustee, as paying agent (in such capacity, the "**Paying Agent**") under the Subordinate Indenture, as described herein. See "DESCRIPTION OF THE 2019A SUBORDINATE BONDS." Investment in the 2019A Subordinate Bonds involve certain risks. For a discussion of certain risks associated with the purchase of the Series 2019A Subordinate Bonds, See the Section herein "CERTAIN RISK FACTORS."

The 2019A Subordinate Bonds will be subject to optional redemption and mandatory redemption prior to maturity as described herein.

THE 2019A SUBORDINATE BONDS ARE LIMITED OBLIGATIONS OF THE COMMISSION, PAYABLE FROM THE REVENUES AND SOURCES SET FORTH IN THE SUBORDINATE INDENTURE, AND SHALL NOT BE DEEMED TO BE A DEBT OF THE COMMONWEALTH OF PENNSYLVANIA (THE "COMMONWEALTH") OR A PLEDGE OF THE FAITH AND CREDIT OF THE COMMONWEALTH. THE COMMONWEALTH IS NOT OBLIGATED TO LEVY OR PLEDGE ANY FORM OF TAXATION WHATSOEVER FOR PAYMENT OF THE 2019A SUBORDINATE BONDS OR TO MAKE ANY APPROPRIATION FOR THE PAYMENT OF THE 2019A SUBORDINATE BONDS. THE COMMISSION HAS NO TAXING POWER.

The 2019A Subordinate Bonds will be equally and ratably secured, along with other outstanding and additional Subordinate Revenue Bonds (herein defined) and certain other parity obligations, pursuant to the pledge by the Commission of the Trust Estate (herein described) under the Subordinate Indenture. The Trust Estate pledged under the Subordinate Indenture to the Trustee for the benefit of the 2019A Subordinate Bonds, together with all outstanding and all additional Subordinate Indenture Bonds (herein described) and parity obligations, includes, among other things, Commission Payments (herein defined). Commission Payments are paid from amounts paid from the General Reserve Fund (herein defined) after the payment of all outstanding Senior Indenture Parity Obligations (herein defined) issued under the Senior Indenture (herein defined), and thus the 2019A Subordinate Bonds are subordinate to the payment of such Senior Indenture Parity Obligations. The 2019A Subordinate Bonds are not payable from funds transferred from the Commonwealth's Motor License Fund.

The scheduled payment of principal of and interest on the 2019A Subordinate Bonds maturing on December 1, 2049 in the aggregate principal amount of $131,115,000 priced at 106.131% (the "**Insured Term Bond**"), when due will be guaranteed under an insurance policy to be issued concurrently with the delivery of the Insured Term Bond by Assured Guaranty Municipal Corp. ("AGM").

ASSURED GUARANTY® MUNICIPAL

THIS COVER PAGE CONTAINS CERTAIN INFORMATION FOR QUICK REFERENCE ONLY. IT IS NOT A SUMMARY OF THIS ISSUE. INVESTORS MUST READ THE ENTIRE OFFICIAL STATEMENT TO OBTAIN INFORMATION ESSENTIAL TO THE MAKING OF AN INFORMED INVESTMENT DECISION.

The 2019A Subordinate Bonds are being offered when, as and if issued and accepted by the Underwriters, subject to prior sale, withdrawal or modification of the offer without notice, to certain legal matters being passed upon by Stradley Ronon Stevens & Young, LLP, Philadelphia, Pennsylvania, Bond Counsel, and to certain other conditions. Certain legal matters will be passed upon for the Underwriters by Saul Ewing Arnstein & Lehr LLP, Philadelphia, Pennsylvania, Counsel for the Underwriters. Certain legal matters will be passed upon for the Commission by its Chief Counsel, Doreen A. McCall, Esquire, and by McNees Wallace & Nurick LLC, Lancaster, Pennsylvania, Disclosure Counsel to the Commission. It is anticipated that the 2019A Subordinate Bonds will be available for delivery in New York, New York on or about June 27, 2019.

The Commission acknowledges that the financing structure of the 2019A Subordinate Bonds is derived from the Commission's sale of the 2019A Subordinate Bonds pursuant to a Bond Purchase Agreement dated June 19, 2019 by and between the Commission and Citigroup Global Markets Inc., as Representative of the Underwriters.

CITIGROUP **PIPER JAFFRAY**

GOLDMAN SACHS & CO. LLC **PNC CAPITAL MARKETS** **RBC CAPITAL MARKETS** **SIEBERT CISNEROS SHANK & CO., L.L.C.**

BNY MELLON CAPITAL MARKETS, LLC/ACADEMY SECURITIES, INC. **FTN FINANCIAL** **MISCHLER FINANCIAL GROUP, INC.** **RAMIREZ & CO., INC.** **RAYMOND JAMES** **STERN BROTHERS**

This Official Statement is dated June 19, 2019.

$722,970,000
Turnpike Subordinate Revenue Bonds, Series A of 2019
MATURITY SCHEDULE

Maturity Date (December 1)	Principal Amount	Interest Rate	Yield	Price	CUSIP† (709224)
2024	$1,960,000	5.000%	1.770%	116.644	M55
2025	3,205,000	5.000%	1.870%	118.872	M63
2026	4,545,000	5.000%	1.980%	120.763	M71
2027	5,985,000	5.000%	2.100%	122.291	M89
2028	7,430,000	5.000%	2.220%	123.529	M97
2029	9,020,000	5.000%	2.350%	124.380	N21
2030	10,760,000	5.000%	2.460%	123.235*	N39
2031	12,625,000	5.000%	2.550%	122.307*	N47
2032	14,620,000	5.000%	2.630%	121.490*	N54
2033	16,760,000	5.000%	2.700%	120.780*	N62
2034	19,040,000	5.000%	2.750%	120.275*	N70
2035	21,475,000	5.000%	2.820%	119.574*	N88
2036	24,075,000	5.000%	2.880%	118.977*	N96
2037	26,850,000	5.000%	2.920%	118.580*	P29
2038	29,810,000	5.000%	2.960%	118.186*	P37
2039	32,960,000	5.000%	3.000%	117.792*	P45

$219,620,000 Term Bond maturing December 1, 2044; Interest Rate: 5.000%; Yield 3.170%; Price 116.139*; CUSIP 709224P52

$131,115,000 Term Bond maturing December 1, 2049 (Insured); Interest Rate: 4.000%; Yield 3.300%; Price 106.131*; CUSIP 709224P60

$131,115,000 Term Bond maturing December 1, 2049; Interest Rate: 4.000%; Yield 3.490%; Price 104.423*; CUSIP 709224P78

---

*Priced to first optional redemption date of December 1, 2029.

†CUSIP is a registered trademark of the American Bankers Association (the "ABA"). CUSIP data is provided by CUSIP Global Services, which is managed on behalf of the ABA by S&P Global Market Intelligence, a part of S&P Global Inc. The CUSIP numbers listed above are being provided solely for the convenience of the holders of 2019A Subordinate Bonds only at the time of issuance of the 2019A Subordinate Bonds and the Commission, the Trustee and the Underwriters do not make any representation with respect to such CUSIP numbers or undertake any responsibility for their accuracy now or at any time in the future. The CUSIP numbers are subject to being changed after the issuance of the 2019A Subordinate Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of the 2019A Subordinate Bonds or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that may be applicable to all or a portion of the 2019A Subordinate Bonds.

PENNSYLVANIA TURNPIKE COMMISSION

COMMISSIONERS*

LESLIE S. RICHARDS
Secretary of Transportation
Chair

WILLIAM K. LIEBERMAN
Vice Chair

BARRY T. DREW
Secretary/Treasurer

PASQUALE T. DEON, SR
Commissioner

JOHN N. WOZNIAK
Commissioner

MARK COMPTON
Chief Executive Officer

CRAIG R. SHUEY
Chief Operating Officer

NIKOLAUS H. GRIESHABER
Chief Financial Officer

BRADLEY J. HEIGEL
Chief Engineer

DOREEN A. MCCALL
Chief Counsel

RAY A. MORROW
Chief Compliance Officer

WELLS FARGO BANK, N.A.
Trustee and Paying Agent

PFM FINANCIAL ADVISORS LLC
Financial Advisor

* There are currently no officers on the Commission. See APPENDIX A – "THE COMMISSION – General".

No dealer, broker, salesman or other person has been authorized by the Commission or the Underwriters to give any information or to make any representations, other than those contained in this Official Statement, and if given or made, such other information or representations must not be relied upon as having been authorized by any or either of the foregoing. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the 2019A Subordinate Bonds by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale. The information set forth herein has been obtained from the Commission and other sources which are believed to be reliable but is not guaranteed as to accuracy or completeness by, and is not to be construed as representations by, the Underwriters. The information and expressions of opinion contained herein are subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in any of the information set forth herein since the date hereof. This Official Statement will be made available through the Electronic Municipal Market Access System ("**EMMA**"), which is the sole Nationally Recognized Municipal Securities Information Repository.

The 2019A Subordinate Bonds are not and will not be registered under the Securities Act of 1933, or under any state securities laws, and the Subordinate Indenture has not been and will not be qualified under the Trust Indenture Act of 1939, as amended, because of available exemptions therefrom. Neither the United States Securities and Exchange Commission (the "**SEC**") nor any federal, state, municipal or other governmental agency will pass upon the accuracy, completeness or adequacy of this Official Statement.

The Underwriters have provided the following sentence for inclusion in this Official Statement. The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

No quotations from or summaries or explanations of provisions of law and documents herein purport to be complete and reference is made to such laws and documents for full and complete statements of their provisions. This Official Statement is not to be construed as a contract or agreement between the Commission and the purchasers or holders of any of the securities described herein. Any statements made in this Official Statement involving estimates or matters of opinion, whether or not expressly, so stated, are intended merely as estimates or opinions and not as representations of fact. The cover page hereof, list of officials, this page and the Appendices attached hereto are part of this Official Statement.

If and when included in this Official Statement, the words "expects," "forecasts," "projects," "intends," "anticipates," "estimates," "assumes" and analogous expressions are intended to identify forward-looking statements, and any such statements inherently are subject to a variety of risks and uncertainties that could cause actual results to differ materially from those that have been projected. Such risks and uncertainties which could affect the amount of tolls and other revenue collected by the Commission include, among others, changes in economic conditions and various other events, conditions and circumstances, many of which are beyond the control of the Commission. Such forward-looking statements speak only as of the date of this Official Statement. The Commission disclaims any obligation or undertaking to release publicly any updates or revision to any forward- looking statement contained herein to reflect any changes in the Commission's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVER-ALLOT OR EFFECT TRANSACTIONS THAT STABILIZE OR MAINTAIN THE MARKET PRICE OF THE

2019A SUBORDINATE BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME WITHOUT NOTICE. THE COMMISSION RESERVES THE RIGHT TO INCREASE THE SIZE OF THIS OFFERING SUBJECT TO PREVAILING MARKET CONDITIONS.

THE ORDER AND PLACEMENT OF MATERIALS IN THIS OFFICIAL STATEMENT, INCLUDING THE APPENDICES, ARE NOT TO BE DEEMED TO BE A DETERMINATION OF RELEVANCE, MATERIALITY OR IMPORTANCE, AND THIS OFFICIAL STATEMENT, INCLUDING THE APPENDICES, MUST BE CONSIDERED IN ITS ENTIRETY. THE OFFERING OF THE 2019A SUBORDINATE BONDS IS MADE ONLY BY MEANS OF THIS ENTIRE OFFICIAL STATEMENT.

Assured Guaranty Municipal Corp. ("AGM") makes no representation regarding the Insured Term Bond or the advisability of investing in the Insured Term Bond. In addition, AGM has not independently verified, makes no representation regarding, and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding AGM supplied by AGM and presented under the heading "BOND INSURANCE" and "APPENDIX H - SPECIMEN MUNICIPAL BOND INSURANCE POLICY".

TABLE OF CONTENTS

OFFICIAL STATEMENT

$722,970,000

PENNSYLVANIA TURNPIKE COMMISSION
Turnpike Subordinate Revenue Bonds, Series A of 2019

INTRODUCTION

This Official Statement, which includes the cover page and the Appendices hereto, is furnished by the Pennsylvania Turnpike Commission (the "**Commission**") in connection with the issuance of the $722,970,000 aggregate principal amount of the Pennsylvania Turnpike Commission Turnpike Subordinate Revenue Bonds, Series A of 2019 (the "**2019A Subordinate Bonds**") dated the date of delivery.

All capitalized terms not otherwise defined herein shall have the same meanings ascribed to them in the definitions set forth in either APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE SUBORDINATE INDENTURE" or APPENDIX E − "SUMMARY OF CERTAIN PROVISIONS OF AND DEFINED TERMS IN THE SENIOR INDENTURE." All references herein to the Enabling Acts (as defined below), the 2019A Subordinate Bonds, the Subordinate Indenture (as defined below) and the Disclosure Undertaking (as defined below) are qualified in their entirety by reference to the complete texts thereof. Copies of drafts of such documents, except for the Enabling Acts, may be obtained during the initial offering period from the principal offices of the Underwriters and thereafter, executed copies may be obtained from Wells Fargo Bank, N.A., (successor to TD Bank, National Association), as Trustee (the "**Trustee**"). All statements in this Official Statement involving matters of opinion, estimates, forecasts, projections or the like, whether or not expressly so stated, are intended as such and not as representations of fact. No representation is made that any of such statements will be realized.

THIS OFFICIAL STATEMENT PROVIDES CERTAIN INFORMATION CONCERNING THE 2019A SUBORDINATE BONDS AS OF THE DATE OF THIS OFFICIAL STATEMENT. OWNERS AND PROSPECTIVE PURCHASERS OF THE 2019A SUBORDINATE BONDS SHOULD NOT RELY ON THIS OFFICIAL STATEMENT FOR INFORMATION CONCERNING THE 2019A SUBORDINATE BONDS ON AND AFTER ANY SUCH DATE, BUT SHOULD LOOK TO ANY REVISIONS, AMENDMENTS, SUPPLEMENTS OR SUBSTITUTIONS HEREOF FOR INFORMATION CONCERNING THE 2019A SUBORDINATE BONDS ON OR AFTER ANY SUCH DATE. FOLLOWING THE DATE OF ISSUANCE OF THE 2019A SUBORDINATE BONDS, UPDATED INFORMATION WILL BE POSTED TO EMMA PURSUANT TO THE COMMISSION'S CONTINUING DISCLOSURE UNDERTAKING. See "CONTINUING DISCLOSURE" herein.

Pennsylvania Turnpike Commission

The Commission is an instrumentality of the Commonwealth of Pennsylvania (the "**Commonwealth**") created by the Enabling Acts, with the power to construct, operate and maintain the System (as defined below) and to perform other functions authorized by Act 44 (as defined below). Its composition, powers, duties, functions, duration and all other attributes are derived from the Enabling Acts as amended and supplemented from time to time. See APPENDIX A − "THE PENNSYLVANIA TURNPIKE COMMISSION" herein. Except as provided therein, the Enabling Acts may be modified, extended, suspended or terminated at any time by further legislation.

Subordinate Indenture and Enabling Acts

The 2019A Subordinate Bonds are being issued pursuant to that certain Subordinate Trust Indenture dated as of April 1, 2008 (the "**Original Subordinate Indenture**") between the Commission and the Trustee, as heretofore amended and supplemented (collectively, the "**Original Indenture**"), and as further supplemented by that certain Supplemental Trust Indenture No. 30 dated as of June 1, 2019 ("**Supplemental Subordinate Indenture No. 30**" and, collectively with the Original Indenture, the "**Subordinate Indenture**"), all pursuant to, and as authorized by, an Act of the General Assembly of Pennsylvania approved on July 18, 2007, P.L. 169, No. 44 ("**Act 44**"), and various Acts of the General Assembly approved on several dates, including the Act of May 21, 1937, P.L. 774; the Act of May 24, 1945, P.L. 972; the Act of February 26, 1947, P.L. 17; the Act of May 23, 1951, P.L. 335; the Act of August 14, 1951, P.L. 1232; and the Act of September 30, 1985, P.L. 240, No. 61 ("**Act 61**") to the extent not repealed by Act 44, the Act of August 5, 1991, P.L. 238, No. 26 ("Act 26"), and the Act of November 25, 2013, P.L. 974, No. 89 ("**Act 89**") (all such Acts are referred to hereinafter collectively as the "**Enabling Acts**") and the Resolution to be adopted by the Commission on June 18, 2019.

Plan of Financing

The 2019A Subordinate Bonds are being issued to provide funds, together with an equity contribution by the Commission, to finance a portion of the costs of (i) making payments to PennDOT (defined herein) in accordance with Act 44 and Act 89, to fund (a) certain grants to mass transit agencies, (b) various multi-modal capital projects; (ii) funding necessary reserves to the extent required for such financing; and (iii) paying the costs of issuing and insuring the 2019A Subordinate Bonds (collectively, the "**2019A Subordinate Bonds Capital Improvements Project**").

Act 44 authorizes the Commission to issue bonds for the purpose of paying costs of the Pennsylvania Department of Transportation ("PennDOT") and bond-related expenses. Proceeds of the 2019A Subordinate Bonds are to be applied toward the satisfaction of the Commission's annual payment obligations to PennDOT under the Amended Funding Agreement (as such term is defined in the Subordinate Indenture). See "SECURITY FOR THE 2019A SUBORDINATE BONDS – Subordinate Revenue Bonds" and APPENDIX A – "THE PENNSYLVANIA TURNPIKE COMMISSION – THE COMMISSION – ENABLING ACTS – *Act 44 and the Act 44 Funding Agreement, Act 89 and Payments to PennDOT for Roads, Bridges and Transit*."

Security

THE 2019A SUBORDINATE BONDS ARE LIMITED OBLIGATIONS OF THE COMMISSION PAYABLE FROM THE COMMISSION PAYMENTS AND OTHER SOURCES SET FORTH IN THE SUBORDINATE INDENTURE AND SHALL NOT BE DEEMED TO BE A DEBT OF THE COMMONWEALTH OR A PLEDGE OF THE FULL FAITH AND CREDIT OF THE COMMONWEALTH. THE COMMONWEALTH IS NOT OBLIGATED TO LEVY OR PLEDGE ANY FORM OF TAXATION WHATSOEVER FOR THE 2019A SUBORDINATE BONDS OR TO MAKE ANY APPROPRIATION FOR THE PAYMENT OF ANY OF THE 2019A SUBORDINATE BONDS. THE COMMISSION HAS NO TAXING POWER.

THE 2019A SUBORDINATE BONDS AND ALL OTHER SUBORDINATE INDENTURE BONDS ARE SUBORDINATED IN RIGHT OF PAYMENT TO THE PRIOR RIGHT OF PAYMENT OF ALL SENIOR INDENTURE PARITY OBLIGATIONS. THE PAYMENT OF THE 2019A SUBORDINATE BONDS AND ALL OTHER SUBORDINATE INDENTURE BONDS IS DEPENDENT UPON THE SUFFICIENCY OF FUNDS AVAILABLE TO BE RELEASED FROM THE SENIOR INDENTURE AFTER REPLENISHING ANY DEFICIENCY IN FUNDS ESTABLISHED

UNDER THE SENIOR INDENTURE AND THE PAYMENT OF ALL AMOUNTS DUE IN RESPECT OF THE SENIOR INDENTURE PARITY OBLIGATIONS AS PROVIDED IN THE SENIOR INDENTURE, ALL AS FURTHER DESCRIBED HEREIN.

Security for the 2019A Subordinate Bonds.

The 2019A Subordinate Bonds are being issued under the Subordinate Indenture as "Revenue Bonds" (referred to for purposes of this Official Statement as "**Subordinate Revenue Bonds**") and will be equally and ratably secured, along with each other series of Subordinate Revenue Bonds issued pursuant to the Subordinate Indenture and certain other obligations incurred as "Revenue Bonds Parity Obligations" under the Subordinate Indenture (referred to for purposes of this Official Statement as "**Subordinate Revenue Bonds Parity Obligations**"), by a pledge by the Commission of the Trust Estate consisting primarily of Commission Payments from amounts released from the General Reserve Fund established under the Senior Indenture (the "**General Reserve Fund**") after the payment of all Senior Indenture Parity Obligations (as defined in APPENDIX E) issued under the Amended and Restated Trust Indenture, originally dated as of July 1, 1986 and amended and restated as of March 1, 2001 (as it may be further amended, supplemented or replaced, the "**Senior Indenture**"), between the Commission and U.S. Bank National Association, as successor trustee (the "**Senior Trustee**"), relating to the Commission's mainline toll revenue bonds. All Commission Payments released from the General Reserve Fund under and pursuant to the terms of the Senior Indenture are deposited into the Commission Payments Fund under the Subordinate Indenture and are available for the payment of all Subordinate Revenue Bonds Parity Obligations in accordance with the Subordinate Indenture.

The 2019A Subordinate Bonds are Debt Service Reserve Fund Bonds for the purpose of the Subordinate Indenture and, accordingly, are secured by moneys on deposit in the Debt Service Reserve Fund as more fully described in "SECURITY FOR THE 2019A SUBORDINATE BONDS - Debt Service Reserve Fund."

As of the date of this Official Statement, the Commission has \$4,998,945,089.90 aggregate principal amount of Subordinate Revenue Bonds outstanding (including compounded amounts as of June 1, 2019 for outstanding capital appreciation bonds) under the Subordinate Indenture. The foregoing amount includes \$291,850,000 of floating rate notes ("**FRNs**"). The Commission has entered into an interest rate exchange agreement with respect to certain Subordinate Revenue Bonds with an outstanding notional amount of \$291,850,000. See "SECURITY FOR THE 2019A SUBORDINATE BONDS – Subordinate Revenue bonds." Upon the issuance of the 2019A Subordinate Bonds, the Commission will have \$5,721,915,089.90 aggregate principal amount of Subordinate Revenue Bonds outstanding (including compounded amounts as of June 1, 2019 for outstanding capital appreciation bonds) under the Subordinate Indenture.

DESCRIPTION OF THE 2019A SUBORDINATE BONDS

General

The 2019A Subordinate Bonds are being issued by the Commission pursuant to the Enabling Acts, a resolution to be adopted by the Commission on June 18, 2019, and the Subordinate Indenture and will be dated the date of their issuance and delivery.

THE 2019A SUBORDINATE BONDS ARE NOT SUBJECT TO ACCELERATION UPON THE OCCURRENCE OF AN EVENT OF DEFAULT.

The 2019A Subordinate Bonds will bear interest at fixed rates and will mature, subject to prior redemption, on the dates and in the amounts set forth on the inside front cover page of this Official Statement.

Interest on the 2019A Subordinate Bonds will accrue from their date of delivery and will be payable semiannually to maturity (or earlier redemption) on June 1 and December 1, commencing on December 1, 2019 (each an "**Interest Payment Date**" with respect to the 2019A Bonds).

The 2019A Subordinate Bonds will be issued in fully registered form in denominations of $5,000 or any integral multiple thereof. As provided in the Subordinate Indenture, the principal or redemption price of the 2019A Subordinate Bonds is payable at the designated trust office of the Trustee (initially its corporate trust office located in Philadelphia, Pennsylvania). Interest on the 2019A Subordinate Bonds shall be paid to the person whose name appears on the bond registration books of the Trustee as the holder thereof as of the close of business on the Record Date for each Interest Payment Date. Payment of the interest on the 2019A Subordinate Bonds shall be made by check mailed to such holder at its address as it appears on such registration books or, upon the written request of any holder of at least $1,000,000 in aggregate principal amount of 2019A Subordinate Bonds, submitted to the Trustee no later than ten (10) Business Days prior to the Record Date, by wire transfer in immediately available funds to an account within the United States designated by such holder.

Defaulted Interest with respect to any 2019A Subordinate Bond shall cease to be payable to the Owner of such 2019A Subordinate Bond on the relevant Record Date and shall be payable to the Owner in whose name such 2019A Subordinate Bond is registered at the close of business on the Special Record Date for the payment of such Defaulted Interest. The Commission shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each 2019A Subordinate Bond and the date of the proposed payment (which date shall be such as will enable the Trustee to comply with the next sentence hereof), and shall deposit with the Trustee at the time of such notice an amount of money, in immediately available funds, equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit prior to the date of the proposed payment; money deposited with the Trustee shall be held in trust for the benefit of the Owners of the 2019A Subordinate Bonds entitled to such Defaulted Interest. Following receipt of such funds or upon satisfactory arrangement for the deposit of such funds, the Trustee shall fix a Special Record Date for the payment of such Defaulted Interest which shall be not more than fifteen (15) nor less than ten (10) days prior to the date of the proposed payment and not less than ten (10) days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Commission of such Special Record Date and, in the name and at the expense of the Commission, shall cause notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor to be mailed, first-class postage prepaid, to each Owner of a 2019A Subordinate Bond entitled to such notice at the address of such owner as it appears on the Bond Register not less than ten (10) days prior to such Special Record Date.

Upon original issuance, the 2019A Subordinate Bonds will be registered in the name of and held by Cede & Co., as registered holder and nominee for DTC. The 2019A Subordinate Bonds initially will be issued as one fully registered certificate for each maturity and interest rate of each series or sub-series, as applicable. Purchases of the 2019A Subordinate Bonds will initially be made in book-entry form. See "Book-Entry Only System" herein. As long as the 2019A Subordinate Bonds are registered in the name of DTC or its nominee, Cede & Co., payments of the principal of, redemption premium, if any, and interest on the 2019A Subordinate Bonds, if any, will be paid directly to Cede & Co. by wire transfer by Wells Fargo Bank, N.A., Philadelphia, Pennsylvania, as Paying Agent (the "**Paying Agent**"), on each Interest Payment Date. While the book-entry only system is in effect, transfers and exchanges of the 2019A Subordinate Bonds will be effected through DTC's book-entry system.

DTC may determine to discontinue providing its service with respect to the 2019A Subordinate Bonds at any time by giving notice to the Commission and discharging its responsibilities with respect thereto under applicable law, or the Commission may determine to discontinue the system of book-entry-only transfers through DTC (or a successor securities depository). Under such circumstances, 2019A Subordinate Bonds will be authenticated and delivered as provided in the Subordinate Indenture to the Beneficial Owners of the 2019A Subordinate Bonds, who shall then become the registered owners thereof.

Redemption of 2019A Subordinate Bonds

The 2019A Subordinate Bonds are subject to optional redemption as set forth below.

Optional Redemption of 2019A Subordinate Bonds.

The 2019A Subordinate Bonds maturing on or after December 1, 2030, are subject to redemption prior to maturity at the option of the Commission at any time on or after December 1, 2029, as a whole or in part by lot at a redemption price equal to 100% of the principal amount thereof, plus accrued interest to the redemption date.

Mandatory Sinking Fund Redemption of 2019A Subordinate Bonds

The 2019A Subordinate Bonds maturing on December 1, 2044 are subject to mandatory sinking fund redemption prior to maturity by the Commission in part on December 1 of the respective years and in the principal amounts each year set forth in the tables below, at a redemption price equal to 100% of the principal amount thereof, plus accrued interest to the redemption date.

2019A Subordinate Bonds Maturing December 1, 2044

Year	Amount
2040	$36,315,000
2041	39,885,000
2042	43,680,000
2043	47,720,000
2044*	52,020,000

*Final Maturity

The Insured Term Bond maturing on December 1, 2049 are subject to mandatory sinking fund redemption prior to maturity by the Commission in part on December 1 of the respective years and in the principal amounts each year set forth in the tables below, at a redemption price equal to 100% of the principal amount thereof, plus accrued interest to the redemption date.

Insured Term Bond Maturing December 1, 2049

Year	Amount
2045	$28,295,000
2046	30,435,000
2047	32,690,000
2048	35,070,000
2049*	4,625,000

*Final Maturity

The 2019A Subordinate Bonds maturing on December 1, 2049 are subject to mandatory sinking fund redemption prior to maturity by the Commission in part on December 1 of the respective years and in the principal amounts each year set forth in the tables below, at a redemption price equal to 100% of the principal amount thereof, plus accrued interest to the redemption date.

2019A Subordinate Bonds Maturing December 1, 2049

Year	Amount
2045	$28,290,000
2046	$30,435,000
2047	$32,695,000
2048	$35,070,000
2049*	$4,625,000

*Final Maturity

Selection of 2019A Subordinate Bonds to be Redeemed

Any partial redemption of the 2019A Subordinate Bonds may be in any order of maturity and in any principal amount within a maturity as designated by the Commission and, in the case of any 2019A Subordinate Bonds subject to mandatory redemption, the Commission shall be entitled to designate whether such payments shall be credited against principal amounts due at maturity or against particular scheduled mandatory redemption obligations with respect to such 2019A Subordinate Bonds.

The portion of any 2019A Subordinate Bond to be redeemed shall be an Authorized Denomination (as defined in the Subordinate Indenture) or any multiple thereof and in selecting 2019A Subordinate Bonds for redemption, each 2019A Subordinate Bond shall be considered as representing that number of 2019A Subordinate Bonds which is obtained by dividing the principal amount of such 2019A Subordinate Bond by the minimum Authorized Denomination. If a portion of a 2019A Subordinate Bond shall be called for redemption, a new 2019A Subordinate Bond of the same maturity in principal amount equal to the unredeemed portion thereof shall be issued to the bondholder thereof upon the surrender of such 2019A Subordinate Bond. If for any reason the principal amount of 2019A Subordinate Bonds called for redemption would result in a redemption of 2019A Subordinate Bonds less than the Authorized Denomination, the Trustee, to the extent possible within the principal amount of such bonds to be redeemed, is authorized to adjust the selection of 2019A Subordinate Bonds for such purpose in order to minimize any such redemption.

So long as the 2019A Subordinate Bonds are issued as book-entry bonds through the Securities Depository, the particular bonds of any maturity and interest rate to be redeemed shall be selected by the Securities Depository in accordance with its stated procedures, or, otherwise, as determined by the Trustee by lot.

Notice of Redemption. The Trustee, at the expense of the Commission, shall send notice of any redemption, identifying the 2019A Subordinate Bonds to be redeemed, the redemption date and the method and place of payment and the information set forth in the following paragraph, by first class mail to each holder of a 2019A Subordinate Bond called for redemption to the holder's address listed on the Bond Register. Such notice shall be sent by the Trustee by first class mail between thirty (30) and sixty (60) days prior to the scheduled redemption date. While the 2019A Subordinate Bonds are in the book-entry-only system, the Trustee is only required to provide notice to the Securities Depository pursuant to its stated procedures.

In addition to the foregoing, the redemption notice shall contain with respect to each 2019A Subordinate Bond being redeemed (1) the CUSIP number, (2) the date of issue, (3) the series or sub-series, as applicable, (4) the interest rate, (5) the maturity date, and (6) any other descriptive information determined by the Trustee to be needed to identify the 2019A Subordinate Bonds. If a redemption is a Conditional Redemption (as defined hereinafter), the notice shall so state. The Trustee also shall send each notice of redemption to (i) any Rating Agency then rating the 2019A Subordinate Bonds to be redeemed, (ii) all of the registered clearing agencies known to the Trustee to be in the business of holding substantial amounts of bonds of a type similar to the 2019A Subordinate Bonds, (iii) the Municipal Securities Rulemaking Board Electronic Municipal Market Access website and any similar entities which are required recipients by reason of continuing disclosure undertakings or regulatory requirements, such services to be identified by the Trustee, and (iv) one or more other national information services that disseminate notices of redemption of bonds such as the 2019A Subordinate Bonds, such services to be identified by the Trustee.

In the case of an optional redemption of 2019A Subordinate Bonds, the notice may state (1) that it is conditioned upon the deposit of moneys, in an amount equal to the amount necessary to effect the redemption, with the Trustee no later than the redemption date or (2) that the Commission retains the right to rescind such notice at any time prior to the scheduled redemption date if the Commission delivers a certificate of a Commission Official to the Trustee instructing the Trustee to rescind the redemption notice (in either case, a "**Conditional Redemption**"), and such notice and optional redemption shall be of no effect if such moneys are not so deposited or if the notice is rescinded.

If the Trustee gives an unconditional notice of redemption, then on the redemption date the 2019A Subordinate Bonds called for redemption will become due and payable. If the Trustee gives a conditional notice of redemption and holds money to pay the redemption price of the affected 2019A Subordinate Bonds, then, on the redemption date, the 2019A Subordinate Bonds called for redemption will become due and payable. In either case, if on the redemption date the Trustee holds money to pay the 2019A Subordinate Bonds called for redemption, thereafter, no interest will accrue on those 2019A Subordinate Bonds, such 2019A Subordinate Bonds will no longer be Outstanding under the Subordinate Indenture and a Holder's only right will be to receive payment of the redemption price upon surrender of those 2019A Subordinate Bonds.

Purchase of 2019A Subordinate Bonds at Any Time. The Trustee, upon the written request of the Commission, shall purchase 2019A Subordinate Bonds as specified by the Commission in the open market at a price not exceeding the price specified by the Commission. Such purchase of 2019A Subordinate Bonds shall be made with funds available under the Subordinate Indenture or provided by the Commission in such written request. Upon purchase by the Trustee, such 2019A Subordinate Bonds shall be treated as delivered for cancellation under the terms of the Subordinate Indenture. Nothing in the Subordinate Indenture shall prevent the Commission from purchasing 2019A Subordinate Bonds in the open market without the involvement of the Trustee and delivering such 2019A Subordinate Bonds to the Trustee for cancellation under the Subordinate Indenture. The principal amounts of 2019A Subordinate Bonds to be redeemed by optional redemption may be reduced by the principal amount of 2019A Subordinate Bonds purchased by the Commission and delivered to the Trustee for cancellation at least fifteen (15) days prior to the last date on which notice of redemption can be mailed.

Registration, Transfer and Exchange

The Trustee shall act as initial registrar for the 2019A Subordinate Bonds (the "**Bond Registrar**") and in such capacity shall maintain a register (the "**Bond Register**") for the registration and transfer of 2019A Subordinate Bonds. Upon surrender of any 2019A Subordinate Bonds at the designated office of the Trustee, as the Bond Registrar, together with an assignment duly executed by the current holder of such 2019A Subordinate Bonds or such holder's duly authorized attorney or legal representative in such form as shall be satisfactory to the Trustee, such 2019A Subordinate Bonds may be exchanged for an equal aggregate principal amount of 2019A Subordinate Bonds of the same maturity, of Authorized Denominations and bearing interest at the same rate and in the same form as the 2019A Subordinate Bonds surrendered for exchange, registered in the name or names designated on the assignment. The Commission shall execute and the Trustee shall authenticate any 2019A Subordinate Bonds whose execution and authentication is necessary to provide for exchange of 2019A Subordinate Bonds and the Commission may rely on a representation from the Trustee that such execution is required.

As long as the 2019A Subordinate Bonds are "Book Entry Bonds" (as described in Article IV of the Supplemental Subordinate Indenture No. 30), the Trustee shall follow the procedures of the Securities Depository with respect to the transfer or exchange of the 2019A Subordinate Bonds. At such time as the 2019A Subordinate Bonds are no longer Book Entry Bonds, the Trustee shall not be required to exchange or register the transfer of 2019A Subordinate Bonds after giving notice calling such 2019A Subordinate Bonds for redemption, in whole or in part.

The Trustee may make a charge to any 2019A Subordinate Bondholder requesting any exchange or registration in the amount of any tax or other governmental charge required to be paid with respect thereto and the Commission may charge such amount as it deems appropriate for each new 2019A Subordinate Bond delivered upon such exchange or transfer, which charge or charges shall be paid before any new 2019A Subordinate Bond shall be delivered.

Prior to due presentment for registration of transfer of any of 2019A Subordinate Bond, the Trustee shall treat the Person shown on the Bond Register as owning a 2019A Subordinate Bond as the 2019A Subordinate Bondholder and the Person exclusively entitled to payment of principal thereof, redemption premium, if any, and interest thereon, if any, and, except as otherwise expressly provided herein, the exercise of all other rights and powers of the owner thereof, and neither the Commission, the Trustee nor any agent of the Commission or the Trustee shall be affected by notice to the contrary.

The Subordinate Indenture, and all provisions thereof, are incorporated by reference in the text of the 2019A Subordinate Bonds, and the 2019A Subordinate Bonds provide that each registered owner, Beneficial Owner, Participant or Indirect Participant (as each is defined below) by acceptance of a 2019A Subordinate Bond (including receipt of a book-entry credit evidencing an interest therein) assents to all of such provisions as an explicit and material portion of the consideration running to the Commission to induce it to issue such 2019A Subordinate Bond.

Book-Entry Only System

The Depository Trust Company ("**DTC**"), New York, New York, will act as securities depository for the 2019A Subordinate Bonds. The 2019A Subordinate Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered 2019A Subordinate Bond certificate will be issued in the aggregate principal amount of each maturity of the 2019A Subordinate Bonds, and will be deposited with DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.6 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments from over 100 countries that DTC's participants ("**Direct Participants**") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("**DTCC**"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a Standard & Poor's rating of AA+. The DTC Rules applicable to its Participants are on file with the SEC. More information about DTC can be found at www.dtcc.com.

Purchases of 2019A Subordinate Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the 2019A Subordinate Bonds on DTC's records. The ownership interest of each actual purchaser of each 2019A Subordinate Bond ("**Beneficial Owner**") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the 2019A Subordinate Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in 2019A Subordinate Bonds, except in the event that use of the book-entry system for the 2019A Subordinate Bonds is discontinued.

To facilitate subsequent transfers, all 2019A Subordinate Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co. or such other name as may be requested by an authorized representative of DTC. The deposit of 2019A Subordinate Bonds with DTC and their registration in the name of Cede & Co. or such other nominee do not affect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the 2019A Subordinate Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such 2019A Subordinate Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of 2019A Subordinate Bonds may wish to take certain steps to augment transmission to them of notices of significant events with respect to the 2019A Subordinate Bonds, such as redemptions, defaults, and proposed amendments to the security documents. For example, Beneficial Owners of 2019A Subordinate Bonds may wish to ascertain that the nominee holding the 2019A Subordinate Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners, in the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of the notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the 2019A Subordinate Bonds within a maturity and series are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. (nor such other DTC nominee) will consent or vote with respect to the 2019A Subordinate Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Commission as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the 2019A Subordinate Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payments of principal of, premium, if any, and interest on the 2019A Subordinate Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts, upon DTC's receipt of funds and corresponding detail information from the Commission or the Trustee on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC (nor its nominee), the Trustee or the Commission, subject to any statutory or regulatory requirements as may be in effect from time to time. Payments of principal, premium, if any, and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Commission or the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as securities depository with respect to the 2019A Subordinate Bonds at any time by giving reasonable notice to the Commission or the Trustee. Under such circumstances, in the event that a successor securities depository is not obtained, 2019A Subordinate Bond certificates are required to be printed and delivered.

The Commission may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, 2019A Subordinate Bond certificates will be printed and delivered to DTC.

The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that the Commission believes to be reliable, but is not guaranteed as to accuracy or completeness by, and is not to be construed as a representation by, the Underwriters, the Trustee or the Commission.

NEITHER THE COMMISSION NOR THE TRUSTEE WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO DIRECT OR INDIRECT PARTICIPANTS, BENEFICIAL OWNERS OR OTHER NOMINEES OF SUCH BENEFICIAL OWNERS FOR: (1) SENDING TRANSACTION STATEMENTS; (2) MAINTAINING, SUPERVISING OR REVIEWING THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC OR ANY DIRECT OR INDIRECT PARTICIPANT OR OTHER NOMINEES OF SUCH BENEFICIAL OWNERS; (3) PAYMENT OR THE TIMELINESS OF PAYMENT BY DTC TO ANY DIRECT PARTICIPANT, OR BY ANY DIRECT OR INDIRECT PARTICIPANT OR OTHER NOMINEES OF BENEFICIAL OWNERS TO ANY BENEFICIAL OWNER, OF ANY AMOUNT DUE IN RESPECT OF THE PRINCIPAL OF OR REDEMPTION PREMIUM, IF ANY, OR INTEREST ON BOOK-ENTRY 2019A SUBORDINATE BONDS; (4) DELIVERY OR TIMELY DELIVERY BY DTC TO ANY DIRECT PARTICIPANT, OR BY ANY DIRECT OR INDIRECT PARTICIPANT OR OTHER NOMINEES OF BENEFICIAL OWNERS TO ANY BENEFICIAL OWNERS, OF ANY NOTICE (INCLUDING NOTICE OF REDEMPTION) OR OTHER COMMUNICATION WHICH IS REQUIRED OR PERMITTED UNDER THE TERMS OF THE SUBORDINATE INDENTURE TO BE GIVEN TO HOLDERS OR OWNERS OF BOOK-ENTRY 2019A SUBORDINATE BONDS; (5) THE SELECTION OF THE BENEFICIAL OWNERS TO

RECEIVE PAYMENT IN THE EVENT OF ANY PARTIAL REDEMPTION OF BOOK-ENTRY 2019A SUBORDINATE BONDS; OR (6) ANY ACTION TAKEN BY DTC OR ITS NOMINEE AS THE REGISTERED OWNER OF BOOK-ENTRY 2019A SUBORDINATE BONDS.

In the event that the Book-Entry Only System is discontinued and the Beneficial Owners become Registered Owners of the 2019A Subordinate Bonds, the 2019A Subordinate Bonds will be transferable in accordance with the provisions of the Subordinate Indenture.

PENNSYLVANIA TURNPIKE SYSTEM

The following provides a general description of the Pennsylvania Turnpike System and certain other information relating to operations of the Commission. Such information is not complete and is qualified by reference to the more complete information set forth in APPENDIX A hereto.

The present Pennsylvania Turnpike System is composed of the following: (i) the 359 mile Turnpike Mainline traversing the southern portion of Pennsylvania from east to west; (ii) the 110 mile north-south section identified as the Northeast Extension; (iii) the approximately 16 mile north-south connection, known as the Beaver Valley Expressway which intersects the Turnpike Mainline in the southwestern portion of the Commonwealth; (iv) the approximately 13 mile Amos K. Hutchinson Bypass, which adjoins the Turnpike Mainline near the New Stanton Interchange; (v) completed segments of the Mon/Fayette Expressway project totaling approximately 48 miles; and (vi) a six mile Southern Beltway project from PA 60 to US 22, near the Greater Pittsburgh International Airport. Such roads, together with any other roads for which the Commission has operational responsibility and is collecting Tolls (as defined below), presently constitute the "**System**."

The Turnpike Mainline connects with the Ohio Turnpike at its western terminus and with the New Jersey Turnpike at its eastern terminus. The Turnpike Mainline commences on the eastern boundary of Pennsylvania at the Delaware River Bridge which connects the System to the New Jersey Turnpike. The Turnpike Mainline traverses the state in a westerly direction generally paralleling the southern border of the state immediately north of Philadelphia and south of Harrisburg to the vicinity of Somerset. West of Somerset, the highway follows a northwesterly direction to the northeast of Pittsburgh and to the Ohio state line, south of Youngstown, Ohio.

The System has a total of 68 interchanges which connect it with major arteries and population centers in its 552 mile traffic corridor. Thirty-two of the interchanges are located on the Turnpike Mainline, including barriers at the New Jersey and Ohio state lines, and 11 interchanges are situated on the Northeast Extension. The additional 25 interchanges are located on the Beaver Valley Expressway, Amos K. Hutchinson Bypass and completed segments of the Mon/Fayette Expressway and Southern Beltway. In addition to the toll interchanges, the Commission has also constructed four E-ZPass Only interchanges which are designed for the exclusive use of E-ZPass customers, located at Virginia Drive (east of the Fort Washington Interchange); Street Road (located west of the Bensalem interchange); Route 29 (located west of the Valley Forge interchange); and at Route 903 in Carbon County. In addition, cashless tolling locations have been constructed and are operational at the following locations: (1) Delaware River Bridge (westbound) which is part of the I-95 Connector in Bucks County; (2) Beaver Valley Expressway; (3) Keyser Avenue/Clark Summit; and (4) Findley Connector. These E-ZPass Only Interchanges, cashless tolling and other similarly planned interchanges are expected to reduce congestion at the System's busier interchanges and provide convenient access to industrial parks and job centers. There are 17 service plazas along the System providing gasoline and diesel fuel, other automotive supplies and services, and restaurant services. Compressed natural gas refueling and electric recharging services are now available at select locations along the System.

Revenue Sources of the Commission

The Commission's revenues are principally derived from three (3) separate sources: toll revenues from the operation of the System, revenue derived from a portion of the Commonwealth's Oil Franchise Tax and revenue derived from a portion of the Commonwealth's vehicle registration fee revenues.

Tolls. The largest part of the Commission's revenues is derived from the collection of all rates, rents, fees, charges, fines or other income derived by the Commission from the vehicular usage of the System and all rights to receive the same (as defined in the Senior Indenture, collectively the "**Tolls**"). The Tolls are pledged to secure the Commission's outstanding Senior Revenue Bonds (also referred to herein as the "**Turnpike Revenue Bonds**") issued under the Senior Indenture and other parity obligations under the Senior Indenture (including certain interest rate swap agreements), which are subject to or may be issued under the terms of the Senior Indenture. As of the date of this Official Statement, $5,385,455,000 in aggregate principal amount of fixed and variable rate Turnpike Revenue Bonds are Outstanding under the Senior Indenture. The foregoing amount includes certain notes evidencing and securing $295,000,000 in loans (issued in six tranches) through the Immigrant Investor Program (known as the EB-5 visa program) administered by U.S. Citizenship and Immigration Services, the proceeds of which are being used to fund a portion of the I-95 Interchange project and certain projects in the Commissioner's current or any prior ten year capital plan (the "**EB-5 Loans**"). See APPENDIX A – "THE PENNSYLVANIA TURNPIKE COMMISSION – CERTAIN FINANCIAL INFORMATION" for additional information on the EB-5 Loans. Also included in the principal amount outstanding under the Senior Indenture is $863,470,000 aggregate principal amount of variable rate debt. Other obligations issued and Outstanding under the Senior Indenture include the Commission's obligations under various interest rate swap agreements having a total current notional amount of $942,280,000. See APPENDIX A – "THE PENNSYLVANIA TURNPIKE COMMISSION — CERTAIN FINANCIAL INFORMATION." The Tolls are not pledged to secure the Subordinate Revenue Bonds, the Special Revenue Bonds, the Oil Franchise Tax Revenue Bonds (as defined below) or the Registration Fee Revenue Bonds (as defined below). Certain payments made from moneys in the General Reserve Fund which are derived from Tolls are, however, pledged on a wholly subordinate basis to secure payments due on Subordinate Revenue Bonds, including the 2019A Subordinate Bonds, and any Special Revenue Bonds.

Since 2009, the Commission has implemented annual increases in toll rates and other charges, as well as modifications to its commercial discounts, and expects to continue to implement future toll increases as determined by the Commission to be necessary to meet the then existing debt, capital and operational obligations of the Commission, including its payment obligations under Act 44 and Act 89. For a discussion of the Commission's revenue sources, including current rates, Tolls and Toll increases, see APPENDIX A – "THE PENNSYLVANIA TURNPIKE COMMISSION — CERTAIN FINANCIAL INFORMATION — Revenue Sources of the Commission," and "— Toll Schedule and Rates." For information in litigation challenging the Tolls, see "LITIGATION" below. See also APPENDIX A – "THE PENNSYLVANIA TURNPIKE COMMISSION – THE COMMISSION – Recent Developments and Pending Legislation." See also "CERTAIN RISK FACTORS – Recent Developments and Pending Legislation" below.

The Commission is permitted under the terms of the Senior Indenture to exclude certain roads, other than the Turnpike Mainline and the Northeast Extension, from the System for the purposes of the Senior Indenture which would eliminate toll revenues from such roads from the definition of Tolls under the Senior Indenture. However, the Commission has not and currently has no plans to remove any roads from the System. In addition, under the Senior Indenture, the Commission has covenanted that it will not sell, lease or otherwise dispose of real estate or personal property comprising a portion of the System except upon compliance with the provisions of the Senior Indenture, including a determination by resolution that the Net Revenues of the Commission will not be materially adversely affected. The

Commission from time to time may consider various proposals that could involve the transfer or other disposition of Commission property. Any such transfer or disposition would be required to comply with the provisions of the Senior Indenture.

Oil Franchise Tax Revenues. The Commission's second principal stream of revenues consists of that portion of the Commonwealth's oil franchise tax revenues (the "**Oil Franchise Tax Revenues**") allocated by statute to the Commission or the holders of the Commission's Oil Franchise Tax Revenue Bonds (the "**Oil Franchise Tax Revenue Bonds**"), $1,056,053,135.70 of which are outstanding as of the date of this Official Statement (including compounded amounts as of June 1, 2019 for outstanding capital appreciation bonds). The Oil Franchise Tax Revenue Bonds, are secured solely by Oil Franchise Tax Revenues. The Oil Franchise Tax Revenues are not pledged to secure any Senior Revenue Bonds, the 2019A Subordinate Bonds, other Subordinate Revenue Bonds, the Special Revenue Bonds or the Registration Fee Revenue Bonds.

Registration Fee Revenues. The Commission's third principal stream of revenues consists of that portion of the Commonwealth's vehicle registration fee revenues (the "**Registration Fee Revenues**") allocated by statute to the Commission or the holders of any of the Commission's Registration Fee Revenue Bonds (the "**Registration Fee Revenue Bonds**"), $368,895,000 of which are outstanding as of the date of this Official Statement. The Registration Fee Revenue Bonds, the proceeds of which were spent on portions of the Mon/Fayette Expressway and the Southern Beltway, are secured by Registration Fee Revenues. Registration Fee Revenue Bonds are to be paid solely from the Registration Fee Revenues. The Registration Fee Revenues are not pledged to secure any Senior Revenue Bonds, the 2019A Subordinate Bonds, other Subordinate Revenue Bonds, the Special Revenue Bonds or the Oil Franchise Tax Revenue Bonds.

Neither the Senior Revenue Bonds, the Oil Franchise Tax Revenue Bonds nor the Registration Fee Revenue Bonds are secured by or have any interest in the Trust Estate.

Recent Pennsylvania Legislation Affecting Transportation Funding

The Pennsylvania legislature enacted comprehensive transportation legislation in 2013. Act 89 of 2013, among other things, made significant changes to the Commission's funding obligations under Act 44. For a discussion of such legislative changes under Act 89 and their impact on Act 44 and the Commission generally, see APPENDIX A – "THE PENNSYLVANIA TURNPIKE COMMISSION – THE COMMISSION."

Traffic and Revenue Study

Attached hereto as APPENDIX G is the Pennsylvania Turnpike 2018 Traffic Study (the "**2018 Traffic Study**") prepared by CDM Smith dated April 20, 2018 together with a "bring down" letter dated April 29, 2019 (the "2019 Bringdown Letter" and together with the 2018 Traffic Study, the "Traffic Study"). The Traffic Study, which should be reviewed in its entirety, updates the 2015 Traffic Study conducted by CDM Smith (formerly Wilbur Smith Associates).

Total adjusted gross toll revenue is estimated to increase from $1.1 billion in Fiscal Year 2016-17 to $4.8 billion by Fiscal Year 2048-49, representing 4.7% annualized growth. Traffic data for the Fiscal Year ended May 31, 2018 indicates a 7.7% increase in net fare revenue, with an increase in traffic volume of 0.2%, as compared to the same period in Fiscal Year ended May 31, 2017. Preliminary, unaudited traffic data for Fiscal Year 2019 indicates a 10.9% increase in net fare revenue, with a 2.0% increase in traffic volume, as compared to Fiscal Year 2018. See APPENDIX A – "THE PENNSYLVANIA TURNPIKE COMMISSION—CERTAIN FINANCIAL INFORMATION – Five-Year Financial

History." The Traffic Study should be read in its entirety for a full description of the assumptions and methodologies used to develop such forecasts. The Commission believes that it will have sufficient revenue to meet the debt, capital and operational obligations of the Commission in future years. See "CERTAIN RISK FACTORS" and APPENDIX G – "TRAFFIC AND REVENUE STUDY."

PLAN OF FINANCING

The 2019A Subordinate Bonds are being issued to provide funds to finance the costs of the 2019A Subordinate Bonds Capital Improvements Project.

ESTIMATED SOURCES AND USES OF FUNDS

	2019A Subordinate Bonds
Sources:	
Par Amount of 2019A Subordinate Bonds	$722,970,000.00
Original Issue Premium	97,286,214.10
Equity Contribution of the Commission	100,000,000.00
Total Sources	$920,256,214.10
Uses:	
Act 44 and Act 89 Payments[1]	$900,000,000.00
Deposit to Debt Service Reserve Fund	14,664,729.36
Costs of Issuance[2]	5,591,484.74
Total Uses	$920,256,214.10

[1] Proceeds will be used to make the Act 44 and Act 89 Payments: 1) that were originally due in July 2018 and January 2019; 2) in July 2019 and January 2020; 3) to make a portion of the Act 44 and Act 89 Payments, in the amount of $87.5 million each, that were originally due in October 2018 and April 2019; and 4) to make a portion of the Act 44 and Act 89 Payments in the amount of $87.5 million each, October 2019 and April 2020. The balance of the Act 44 and Act 89 Payments due in October 2018, April 2019, October 2019 and April 2020, in the amount of $25.0 million each, will be funded by an equity contribution by the Commission.

[2] Includes underwriters' discount, fees and expenses of bond counsel, disclosure counsel and counsel to the underwriters, rating agency fees, printing expenses, fees and expenses of the financial advisor, trustee fees, bond insurance premium, and other miscellaneous costs and expenses.

SECURITY FOR THE 2019A SUBORDINATE BONDS

2019A Subordinate Bonds — General

The 2019A Subordinate Bonds are limited obligations of the Commission. The 2019A Subordinate Bonds will be secured, along with the Commission's Outstanding Subordinate Revenue Bonds Parity Obligations under the Subordinate Indenture, except as otherwise noted below, by the pledge by the Commission to the Trustee of (1) the Commission Payments (as described below), (2) all monies deposited into accounts or funds (other than the Rebate Fund), created by the Subordinate Indenture and held by or on behalf of the Trustee, (3) any insurance proceeds and other moneys required to be deposited therein, (4) all payments received by the Commission pursuant to Parity Swap Agreements and (5) all investment earnings on all moneys held in accounts and funds established by the Subordinate Indenture, other than the Rebate Fund (collectively, the "**Trust Estate**"). "Commission Payments" consist of certain payments made by the Commission from funds on deposit in the General Reserve Fund established under the Senior Indenture to the extent such funds may be released from the

General Reserve Fund in accordance with the terms of the Senior Indenture. The Subordinate Indenture does not create a lien on the General Reserve Fund. Under the Senior Indenture, holders of the Senior Indenture Parity Obligations are granted a lien on the Tolls, certain other revenues and funds established under the Senior Indenture, including the General Reserve Fund, and pledged by the Commission as part of the Senior Trust Estate (as defined in APPENDIX E). The Subordinate Indenture does not create any lien on Tolls, other revenues and funds established under the Senior Indenture. See "SECURITY FOR THE 2019A SUBORDINATE BONDS — Commission Payments, and — Rate Covenant " below.

The Subordinate Indenture further provides that the Commission may not issue Additional Subordinate Indenture Bonds nor incur other Parity Obligations except upon satisfaction of various requirements as expressly provided in the Subordinate Indenture. See "SUBORDINATE INDENTURE —ADDITIONAL SUBORDINATE INDENTURE BONDS".

The 2019A Subordinate Bonds are Debt Service Reserve Fund Bonds for the purpose of the Subordinate Indenture and, accordingly, are secured by money on deposit in the Debt Service Reserve Fund. Upon the issuance of the 2019A Subordinate Bonds, the money on deposit in the Debt Service Reserve Fund will equal the Debt Service Reserve Fund Requirement with respect to all outstanding Debt Service Reserve Fund Bonds, including the 2019A Subordinate Bonds.

If the Trucking Plaintiffs (herein defined) are successful in their appeal of the Lawsuit (herein defined), the various monies or other sources of security of the Commission, including, but not limited to, the monies or sources of security for the payment of the 2019A Subordinate Bonds under the Trust Estate could be adversely affected. See "CERTAIN RISK FACTORS – United States District Court for the Middle District of Pennsylvania," "LITIGATION – Certain Litigation" and APPENDIX A – "THE PENNSYLVANIA TURNPIKE COMMISSION – THE COMMISSION – Recent Developments and Pending Legislation – *Commission Litigation*," for a description of such litigation and the Commission's assessment of any potential impact on the Trust Estate.

Limitation

TOLL REVENUES, OIL FRANCHISE TAX REVENUES AND REGISTRATION FEE REVENUES AS WELL AS OTHER SOURCES OF THE COMMISSION'S REVENUES ARE NOT PLEDGED UNDER THE SUBORDINATE INDENTURE AS PART OF THE TRUST ESTATE. THE TRUST ESTATE IS LIMITED TO FUNDS AVAILABLE AND TRANSFERRED TO THE TRUSTEE FROM THE GENERAL RESERVE FUND UNDER THE SENIOR INDENTURE AND CERTAIN OTHER AMOUNTS ON DEPOSIT WITH THE TRUSTEE. THE TRUST ESTATE AS DEFINED IN THE SUBORDINATE INDENTURE ALSO EXCLUDES ALL MONIES HELD IN THE REBATE FUND ESTABLISHED UNDER THE SUBORDINATE INDENTURE.

THE 2019A SUBORDINATE BONDS ARE LIMITED OBLIGATIONS OF THE COMMISSION AND SHALL NOT BE DEEMED TO BE A DEBT OF THE COMMONWEALTH OR A PLEDGE OF THE FULL FAITH AND CREDIT OF THE COMMONWEALTH. THE COMMONWEALTH IS NOT OBLIGATED TO LEVY OR PLEDGE ANY FORM OF TAXATION WHATSOEVER THEREFOR OR TO MAKE ANY APPROPRIATION FOR THE PAYMENT OF ANY OF THE 2019A SUBORDINATE BONDS. THE COMMISSION HAS NO TAXING POWER.

Senior Revenue Bonds and Other Senior Parity Obligations

The Commission has previously issued Senior Revenue Bonds under the Senior Indenture, $5,385,455,000 of which are outstanding as of the date of this Official Statement. The foregoing amount includes certain notes evidencing and securing $295,000,000 in EB-5 Loans. See APPENDIX A – "THE PENNSYLVANIA TURNPIKE COMMISSION – CERTAIN FINANCIAL INFORMATION" for additional information on the EB-5 Loans. Under the terms of the Senior Indenture the Commission may issue additional Senior Revenue Bonds. Also included in the principal amount outstanding under the Senior Indenture is $863,470,000 aggregate principal amount of variable rate debt. THE PRINCIPAL OF, PREMIUM, IF ANY, AND INTEREST DUE AND PAYABLE ON ALL SUCH SENIOR REVENUE BONDS WILL BE PAID PRIOR TO THE PAYMENT OF COMMISSION PAYMENTS WITH RESPECT TO THE SUBORDINATE INDENTURE BONDS, INCLUDING THE 2019A SUBORDINATE BONDS, EXCEPT TO THE EXTENT ANY SPECIAL REVENUE BONDS ARE PAID FROM AMOUNTS TRANSFERRED TO THE TRUSTEE FROM THE MOTOR LICENSE FUND. See "SECURITY FOR THE 2019A SUBORDINATE BONDS – Commission Payments" below.

In addition to the Outstanding Senior Revenue Bonds, the Commission has entered into various interest rate exchange agreements with an outstanding notional amount of $942,280,000 that constitute Senior Indenture Parity Swap Agreements (as defined in APPENDIX E) under the Senior Indenture. Under the terms of the Senior Indenture, amounts payable under Senior Indenture Parity Swap Agreements, including certain termination payments, are secured on a parity with the Senior Revenue Bonds by the Senior Trust Estate. Under the terms of the Senior Indenture, the Commission may enter into additional Senior Indenture Parity Swap Agreements. ALL AMOUNTS PAYABLE UNDER ALL SUCH SENIOR PARITY SWAP AGREEMENTS, INCLUDING CERTAIN TERMINATION PAYMENTS, WILL BE PAID PRIOR TO THE PAYMENT OF COMMISSION PAYMENTS WITH RESPECT TO THE SUBORDINATE INDENTURE BONDS, INCLUDING THE 2019A SUBORDINATE BONDS, EXCEPT TO THE EXTENT ANY SPECIAL REVENUE BONDS ARE PAID FROM AMOUNTS TRANSFERRED TO THE TRUSTEE FROM THE MOTOR LICENSE FUND. See "SECURITY FOR THE 2019A SUBORDINATE BONDS – Commission Payments" below, and "THE PENNSYLVANIA TURNPIKE – CERTAIN FINANCIAL INFORMATION - Financial Policies and Guidelines" in APPENDIX A.

Subordinate Revenue Bonds

Act 44 authorizes the Commission to issue bonds for the purpose of paying costs of PennDOT and bond-related expenses. Proceeds of such bonds may be applied toward the satisfaction of the Commission's annual payment obligations to PennDOT under the Amended Funding Agreement (as such term is defined in the Subordinate Indenture). As of the date of this Official Statement, there are $4,998,945,089.90 aggregate principal amount of Subordinate Revenue Bonds outstanding under the Subordinate Indenture (including compounded amounts as of June 1, 2019 for outstanding capital appreciation bonds). Upon the issuance of the 2019A Subordinate Bonds, the Commission will have $5,721,915,089.90 of Subordinate Revenue Bonds outstanding under the Subordinate Indenture (including compounded amounts as of June 1, 2019 for outstanding capital appreciation bonds). The foregoing amount includes $291,850,000 of FRNs. The Commission has entered into an interest rate exchange agreement with respect to certain Subordinate Revenue Bonds with an outstanding notional amount of $291,850,000. Upon the fulfillment of conditions set forth in the Subordinate Indenture, the Commission may issue additional Subordinate Revenue Bonds under the terms of the Subordinate Indenture which will have an equal claim to the Trust Estate with the 2019A Subordinate Bonds. However, all such additional Subordinate Revenue Bonds issued under the terms of the Subordinate Indenture shall be subordinate to the payment of all Senior Indenture Parity Obligations issued pursuant to the Senior Indenture. See APPENDIX C - "SUMMARY OF CERTAIN PROVISIONS OF THE SUBORDINATE INDENTURE."

Special Revenue Bonds

Under Act 44, the Commission is authorized to issue Special Revenue Bonds (as defined in §9511.2 of Act 44) up to an aggregate principal amount of $5 billion (not to exceed $600 million per year), exclusive of original issue discount, for the purpose of paying bond-related expenses and costs of PennDOT (specifically, highway, road, tunnel and bridge construction and other capital projects). As of the date of this Official Statement, there are $984,651,226.10 aggregate principal amount of Special Revenue Bonds outstanding under the Subordinate Indenture (including compounded amounts as of June 1, 2019 for outstanding capital appreciation bonds). Special Revenue Bonds are subordinate to Subordinate Revenue Bonds (including the 2019A Subordinate Bonds) with respect to the Trust Estate, including Commission Payments, except with respect to the Special Revenue Bonds Receipts Account and the Special Revenue Bonds Funded Debt Service Sub-Account, all as further provided in the Subordinate Indenture. The Commission may issue additional Special Revenue Bonds under the Subordinate Indenture, which additional Special Revenue Bonds would be subordinate to the Subordinate Revenue Bonds but on parity with other Special Revenue Bonds Parity Obligations. In the event the Commission does not make a required deposit for payments of debt service on Special Revenue Bonds with the Trustee, such deposit is to be made from funds available for such purpose on deposit in the Commonwealth's Motor License Fund. The Commonwealth has no obligation to provide any funds, other than available funds on deposit in the Motor License Fund, for the payment of any Special Revenue Bonds. Pursuant to Act 89, Special Revenue Bonds may not be issued by the Commission to fund any portion of its annual payment obligation to PennDOT that commenced on or after July 1, 2014, although Special Revenue Bonds may be issued for refunding purposes. The Commission may issue additional Special Revenue Bonds to fund any portion of its annual payment obligations that became due prior to July 1, 2014. See "THE PENNSYLVANIA TURNPIKE COMMISSION – THE COMMISSION – ENABLING ACTS − *Statutory Limitations on the Incurrence of Special Revenue Bonds*" in APPENDIX A for a more detailed discussion of Special Revenue Bonds and the Commission's reimbursement obligations related to withdrawals from the Motor License Fund.

In connection with the issuance by the Commission of the initial series of Special Revenue Bonds, a Memorandum of Agreement (the "**Memorandum of Agreement**") was executed by PennDOT, the Office of the Budget of the Commonwealth and the State Treasurer of the Commonwealth. In the Memorandum of Agreement, the State Treasurer agreed to create a separate account, designated the "PTC Special Revenue Bonds Account," within the Motor License Fund and to use its best efforts to maintain in such account an amount equal to the then maximum annual debt service on all outstanding Special Revenue Bonds (the "**Account Requirement**"). Although funds in such account are not pledged to the Trustee, the State Treasurer agrees in the Memorandum of Agreement not to use such account for any other purpose if other funds are available in the Motor License Fund. The Subordinate Indenture requires the Trustee to provide immediate notice to PennDOT, with a copy to the State Treasurer, of any failure by the Commission to make a required monthly deposit into the Commission Payments Fund with respect to the Special Revenue Bonds (a "**Required Monthly Deposit**") in full when due under the Subordinate Indenture. The Memorandum of Agreement provides that, before the end of the second business day following the day PennDOT receives such notice from the Trustee that the Commission has failed to timely make a Required Monthly Deposit and stating the amount of the shortfall, PennDOT shall prepare and deliver to the Pennsylvania Department of Transportation Comptroller in the Office of the Budget (the "**Comptroller**") a notice stating in what amount a payment shall be made to the Trustee on behalf of the Commission, which amount shall be equal to the amount of such shortfall. Before the end of the second business day following the Comptroller's receipt of the notice from PennDOT, the Comptroller shall prepare a pay dated voucher transmittal in the amount of the shortfall and deliver the voucher transmittal to the State Treasurer for payment. Before the end of the fourth business day following the State Treasurer's receipt of the voucher transmittal from the Comptroller, the State Treasurer shall cause a wire transfer in the amount of the shortfall to be made to the Trustee from funds on deposit to the credit of the Motor License Fund, excluding the PTC Special Revenue Bonds Account. If funds are not available in the Motor License Fund to pay the Trustee, funds on deposit in the PTC Special Revenue Bonds Account shall be utilized. If the balance in the PTC Special Revenue Bonds Account is reduced below the Account Requirement, the State Treasurer agrees to cause the first monies available from designated sources in the Motor License Fund to be deposited in such Account in order to restore the balance therein to the Account Requirement in the order of priority described in the Memorandum of Agreement (first, from the Liquid Fuels and Fuels Tax, second, from the Oil Company Franchise Tax, and third, from various vehicle registration fees and other miscellaneous fees and income).

In Act 44, the Commonwealth has pledged to each entity that acquires a Special Revenue Bond issued by the Commission that the Commonwealth will not limit or alter the rights vested in the Commission or the Trustee for the Special Revenue Bonds to the appropriation and distribution of the money in the Motor License Fund for the Special Revenue Bonds as described in Act 44. The appropriation of money in the Commonwealth's Motor License Fund in respect of Special Revenue Bonds issued by the Commission under Act 44 is continuing and non-lapsing.

The Commission covenants under the Subordinate Indenture, as required by Act 44, that (i) it will not issue Special Revenue Bonds in an aggregate amount exceeding $5,000,000,000, unless otherwise authorized by Act of the Pennsylvania General Assembly and (ii) it will not issue Special Revenue Bonds in an amount exceeding $600,000,000 in any calendar year unless otherwise authorized by Act of the Pennsylvania General Assembly. As stated above, Act 89 does not permit the issuance of Special Revenue Bonds to fund the Commission's payment obligation to PennDOT commencing July 1, 2014.

In the event of an amendment to Act 44 or enactment of other legislation providing that the Motor License Fund will become the primary payment source for debt service on the Special Revenue Bonds, the Commission may elect to substitute the Motor License Fund for the Commission Payments as the primary source of payment of debt service on the Special Revenue Bonds; provided, however, that the Commission may make such election only if it (i) obtains confirmation from the rating agencies that such change will not adversely affect the ratings on the Special Revenue Bonds and on the Subordinate Revenue Bonds that remain outstanding after such change and (ii) causes to be delivered an opinion of Bond Counsel that such change will not adversely affect the exclusion from gross income for federal income tax purposes of interest on the Special Revenue Bonds.

The Commission covenants under the Subordinate Indenture that it will seek to enforce the covenants of the Commonwealth in Act 44 with respect to the Special Revenue Bonds and the Commonwealth's Motor License Fund. The Trustee may, and the Trustee, upon receipt of written direction from the holders of not less than twenty-five percent (25%) in principal amount of the Special Revenue Bonds then outstanding and upon being indemnified to its satisfaction shall, institute and prosecute in a court of competent jurisdiction any appropriate action to enforce the covenants of the Commonwealth in Act 44.

The Commission covenants under the Subordinate Indenture that it will seek to continue the Commonwealth's Motor License Fund in full force and effect without change which would materially adversely affect the Special Revenue Bonds. The Commission shall take such action as may be desirable or necessary to prevent or remedy the occurrence of any such change by petitioning the Governor and the General Assembly and taking appropriate legal action.

Parity Swap Agreements

In addition to additional Subordinate Revenue Bonds and Special Revenue Bonds, the Commission is authorized under the terms of the Subordinate Indenture to enter into various interest rate exchange agreements that will constitute Parity Swap Agreements under the Subordinate Indenture. The Commission has not entered into any such Parity Swap Agreements under the Subordinate Indenture. Under the terms of the Subordinate Indenture, amounts payable under Parity Swap Agreements entered into by the Commission, including certain termination payments, may be secured on a parity with Subordinate Revenue Bonds, including the 2019A Subordinate Bonds. See APPENDIX C — "SUMMARY OF CERTAIN PROVISIONS OF THE SUBORDINATE INDENTURE."

Obligations Secured by Other Revenue Sources

As of the date of this Official Statement, the Commission has $1,056,053,135.70 aggregate principal amount of Oil Franchise Tax Revenue Bonds outstanding (including compounded amounts as June 1, 2019 for outstanding capital appreciation bonds), and $368,895,000 aggregate principal amount of Registration Fee Revenue Bonds outstanding. The Commission has entered into various interest rate exchange agreements with respect to certain Oil Franchise Tax Revenue Bonds and Registration Fee Revenue Bonds with an aggregate outstanding notional amount of $551,425,000. See APPENDIX A — "THE PENNSYLVANIA TURNPIKE COMMISSION — CERTAIN FINANCIAL INFORMATION - Financial Policies and Guidelines - Disclosure and Financial Reporting." Neither the Oil Franchise Tax Revenue Bonds nor the Registration Fee Revenue Bonds are secured by or have any interest in the Trust Estate under the Subordinate Indenture. Furthermore, neither the Oil Franchise Tax Revenues nor the Registration Fee Revenues are pledged to secure the 2019A Subordinate Bonds, other Subordinate Revenue Bonds or Special Revenue Bonds or the Senior Indenture Parity Obligations.

Rate Covenant

The Commission has agreed in the Subordinate Indenture that it will at all times establish and maintain schedules of Tolls for traffic over the System so that the Net Revenues of the System in each Fiscal Year will at all times be at least sufficient to provide funds in an amount not less than the sum required by the Senior Indenture and, in addition, so that the amount paid into the General Reserve Fund of the Senior Indenture in each Fiscal Year and for each Commission Payment, will at all times (after deducting any liquidity reserve or other required holdback or deposit then in effect, whether by contract or other management policy or procedure) be at least sufficient to provide funds in an amount not less than (i) 115% of the Annual Debt Service for such Fiscal Year on account of all Outstanding Subordinate Revenue Bonds and Subordinate Revenue Bonds Parity Obligations, plus (ii) 100% of the Annual Debt Service for such Fiscal Year on account of all Outstanding Special Revenue Bonds, Special Revenue Bonds Parity Obligations and Subordinated Indebtedness, plus (iii) any payment by the Commission required by the Subordinate Indenture for restoring any deficiency in the Debt Service Reserve Fund within an eighteen (18) month period (the "**Rate Covenant**").

The Commission Payments made from the Senior Trustee to the Trustee are based on the coverage levels established by the Rate Covenant described above; therefore, in each Fiscal Year the Commission has covenanted to transfer Commission Payments in amounts sufficient to meet its Rate Covenant as described above. Notwithstanding the provisions of the Rate Covenant, however, any balance in the Senior Indenture Revenue Fund which a Commission Official determines to be in excess of the amount required to be reserved therein for future transfers to the Senior Indenture Debt Service Fund (as herein defined) may be transferred to the General Reserve Fund. Once in the General Reserve Fund, moneys in excess of any amounts required to restore deficiencies in any funds and accounts established under the Senior Indenture are available, upon requisition, to make Commission Payments to the Trustee for the payment of Debt Service on Outstanding Subordinate Revenue Bonds and Subordinate Revenue Bonds Parity Obligations as well as Outstanding Special Revenue Bonds, Special Revenue Bonds Parity Obligations and other Subordinated Indebtedness. See "SECURITY FOR THE 2019A SUBORDINATE BONDS — Certain Provisions of the Senior Indenture," "SECURITY FOR THE 2019A

SUBORDINATE BONDS — Commission Payments" and APPENDIX A — "THE PENNSYLVANIA TURNPIKE COMMISSION — THE COMMISSION — ENABLING ACTS - *Act 44 and the Act 44 Funding Agreement, Act 89 and the Act 89 Amendments, and Act 44 Payments to PennDOT for Roads, Bridges and Transit*."

The Commission's failure to meet the Rate Covenant shall not constitute an Event of Default under the Subordinate Indenture if (i) no Event of Default under the Subordinate Indenture occurred in debt service payments as a result of such failure and (ii) the Commission promptly after determining that the Rate Covenant was not met retains a Consultant (as defined therein) to make written recommendations as to appropriate revisions to the schedules of Tolls necessary or appropriate to meet the Rate Covenant and advises the Trustee in writing of such retention. Anything in the Subordinate Indenture to the contrary notwithstanding, if the Commission shall comply with the recommendations of the Consultant in respect of Tolls to the extent permitted by law, it will not constitute an Event of Default under the provisions of the Subordinate Indenture if the Commission fails to meet the Rate Covenant during the succeeding Fiscal Year as long as no Event of Default under the Subordinate Indenture has occurred in debt service payments. If the Commission does not comply with the recommendations of the Consultant (as defined in APPENDIX E) in respect of Tolls, the Trustee may, and upon the request of the holders of not less than 25% in principal amount of the Subordinate Indenture Bonds of any Class then outstanding and upon being indemnified to its satisfaction shall, institute and prosecute in a court of competent jurisdiction any appropriate action to compel the Commission to revise the schedules of Tolls. The Commission covenants that it will adopt and charge Tolls in compliance with any final order or decree entered in any such proceeding.

In the event that the Consultant shall fail to file with the Commission such recommendations in writing within sixty (60) days after such retention, the Trustee may designate and appoint a different Consultant to make recommendations as to an adjustment of the schedules of Tolls, which recommendations shall be reported in writing to the Commission and to the Trustee within sixty (60) days after such retention. Such written report shall for all purposes be considered to be the equivalent of and substitute for the recommendations of the Consultant retained by the Commission.

In preparing its recommendations, the Consultant may rely upon written estimates of Revenues prepared by the other Consultants of the Commission. Copies of such written estimates signed by such Consultants shall be attached to such recommendations. The Commission has covenanted that promptly after receipt of such recommendations and the adoption of any revised schedules of Tolls, certified copies thereof will be filed with the Trustee.

The ability of the Commission to collect Tolls in an amount sufficient to comply with the Rate Covenant could be adversely affected by many factors, some of which are beyond the Commission's control. See "CERTAIN RISK FACTORS" and APPENDIX A — "THE PENNSYLVANIA TURNPIKE COMMISSION — CERTAIN FINANCIAL INFORMATION — Toll Schedule and Rates."

The Commission has agreed in the Senior Indenture that Tolls will be classified in a reasonable way to cover all traffic, so that the Tolls may be uniform in application to all traffic falling within any reasonable class regardless of the status or character of any person, firm or corporation participating in the traffic; provided, however, that the foregoing shall not be interpreted to restrict the Commission's right, in its discretion in connection with its management of the System, to establish and maintain flexible Toll schedules including, but not limited to, provisions for utilizing or otherwise taking into account peak and nonpeak pricing, introductory pricing, weight, method of payment, frequency, carpooling, electronic Tolls or other new Toll collection technologies, traffic management systems, and similar classifications. The Commission has agreed that it shall not grant free passage or reduced Tolls within a class, except in the limited manner permitted by the Senior Indenture, which includes, among others, for operational or safety reasons including, but not limited to, reasons arising out of a work stoppage, work slowdown or work action, and for use by the Army, Air Force, Navy, Coast Guard, Marine Corps or National Guard or any branch thereof in time of war or other emergency. Any reduced Toll or grant of free passage shall be reviewed by the Commission with a Consultant before implementing the same unless the same is temporary (e.g., having a duration of less than one year).

In the event the Commission did not meet the Rate Covenant for the preceding Fiscal Year, any classification resulting in a reduced Toll or new classification shall be subject to a Consultant approving the same before it is implemented. In all events, the Commission shall not make a change in classification or any new classification which would cause the Commission to fail to meet the Rate Covenant.

In addition, in the event the Commission does not meet the Rate Covenant for the preceding Fiscal Year, any reduced Toll or free passage shall be subject to a Consultant approving the same before it is implemented by the Commission unless the circumstances require immediate implementation, in which event the Commission shall obtain such approval promptly following implementation. In all events, the Commission shall not reduce Tolls or grant free passage if it would cause the Commission to fail to meet the Rate Covenant.

The Commission's covenant as to uniformity of Tolls (pursuant to the Senior Indenture) shall not be construed as requiring that Tolls for any given class of traffic be identical in amount throughout the entire System for trips of approximately identical lengths. The Commission may fix and place in effect schedules of Tolls for any given class of traffic wherein the Tolls charged for travel on a given section of the System shall be different from the Tolls charged on another section of the System notwithstanding the fact that both of said sections may be of identical or approximately identical length.

Certain Provisions of the Senior Indenture

THIS DISCUSSION DESCRIBES CERTAIN PROVISIONS OF THE SENIOR INDENTURE:

In addition to any other funds created by an indenture supplemental to the Senior Indenture, the following funds and accounts exist under the Senior Indenture: (a) a Construction Fund; (b) a Revenue Fund (herein, the "**Senior Indenture Revenue Fund**"); (c) a Debt Service Fund (herein, the "**Senior Indenture Debt Service Fund**"); (d) a Debt Service Reserve Fund (herein, the "**Senior Indenture Debt Service Reserve Fund**"); (e) a Reserve Maintenance Fund (herein, the "**Senior Indenture Reserve Maintenance Fund**"); (f) a General Reserve Fund; (g) a Rebate Fund (herein, the "**Senior Indenture Rebate Fund**"); and (h) an Operating Account to be held by the Commission in the name of the Commission outside of the Senior Indenture (herein, the "**Senior Indenture Operating Account**").

The Commission covenants that all Revenues (as defined in APPENDIX E hereto) will be deposited daily, as far as practicable, with the Senior Trustee or in the name of the Senior Trustee with a depositary or depositaries of the Senior Trustee, to the credit of the Senior Indenture Revenue Fund.

Except as otherwise provided in the Senior Indenture, transfers from the Senior Indenture Revenue Fund shall be made to the following funds and in the following order of priority:

(i) Senior Indenture Rebate Fund;

(ii) Senior Indenture Operating Account;

(iii) Senior Indenture Debt Service Fund;

(iv) Senior Indenture Reserve Maintenance Fund;

(v) Senior Indenture Debt Service Reserve Fund; and

(vi) General Reserve Fund (after retaining in the Senior Indenture Revenue Fund such funds identified by the Commission for future transfers to the Senior Indenture Debt Service Fund established under the Senior Indenture).

The Senior Trustee shall transfer from the Senior Indenture Revenue Fund on or before the last Business Day of each year (or more frequently if requested by a Commission Official) to the credit of the General Reserve Fund any funds which a Commission Official determines to be in excess of the amount required to be reserved therein for future transfers to the Senior Indenture Debt Service Fund.

Moneys in the General Reserve Fund may be expended by the Commission to restore deficiencies in any funds or accounts created under the Senior Indenture and, absent any such deficiency, for any of the following purposes, with no one item having priority over any of the others:

(a) To purchase or redeem Senior Revenue Bonds;

(b) To secure and pay the principal or redemption price of and interest on any Senior Indenture Subordinated Indebtedness (as defined in APPENDIX E);

(c) To make payments into the Construction Fund established under the Senior Indenture;

(d) To fund improvements, extensions and replacements of the System; or

(e) To further any corporate purpose.

The Senior Trustee is authorized under the Senior Indenture to apply monies on deposit in the General Reserve Fund for any of such purposes upon receipt of a requisition signed by a Commission Official.

Under the terms of the Subordinate Indenture, the Commission covenants to instruct the Senior Trustee to pay to the Trustee out of the General Reserve Fund established under the Senior Indenture such amounts as are required by the Subordinate Indenture or by an indenture supplemental to the Subordinate Indenture to pay, at the times specified, debt service on all outstanding Subordinate Indenture Bonds (including the 2019A Subordinate Bonds) and all Parity Obligations issued under the Subordinate Indenture. See “SECURITY FOR THE 2019A SUBORDINATE BONDS – Commission Payments.”

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

The following chart sets forth the balances held in the General Reserve Fund as of the fiscal year end dates set forth below.

General Reserve Fund Balances
as of May 31*

2019	2018	2017	2016	2015
$391,569,248	$345,414,879	$376,426,649	$336,521,619	$235,603,195

Balances in the General Reserve Fund may be applied in the future for capital expenditures of the Commission and for other general corporate purposes, including making Commission Payments as described below.

The Senior Indenture contains a rate covenant, as described in APPENDIX E.

Commission Payments

Pursuant to the terms of the Subordinate Indenture, the Commission covenants, after payment of all required debt service on all Senior Indenture Parity Obligations issued under the Senior Indenture and subject to the provisions of the Senior Indenture, to pay to the Trustee, and to instruct the Senior Indenture Trustee to pay to the Trustee, out of the General Reserve Fund established under the Senior Indenture such amounts as are required by the Subordinate Indenture or by a supplemental indenture to the Subordinate Indenture to pay, at the times specified, required payments with respect to all bonds and other obligations issued under the Subordinate Indenture, a supplemental indenture to the Subordinate Indenture, and all Parity Obligations thereunder. Such payments out of the General Reserve Fund shall only take on the character of being "Commission Payments," as described below, upon their transmittal to the Trustee, and nothing in the Subordinate Indenture shall be construed to create any lien on any amount while held in the General Reserve Fund.

Accordingly, the Commission shall instruct and furnish a debt service schedule to, the Senior Trustee providing for (i) the payment to the Trustee out of funds held in the General Reserve Fund of monies to pay such amounts as are required by the Subordinate Indenture with respect to the outstanding bonds and (ii) for the payment of debt service on other obligations issued under the Subordinate Indenture, Parity Obligations thereunder and all other payments required thereunder at such times on such terms as are set forth in the Subordinate Indenture (collectively, the "**Commission Payments**").

In addition to other payments and General Reserve Fund withdrawals required under the Subordinate Indenture, the Commission shall withdraw, or arrange for the withdrawal, from the General Reserve Fund and deposit to the Commission Payments Fund, created under the Subordinate Indenture and as defined and more particularly described below, the amounts hereinafter specified which shall be applied by the Trustee for the purposes for which the same shall be deposited:

(a) On or before the first Business Day of each calendar month commencing on the first Business Day of the sixth month prior to the next succeeding Interest

* Balances in the General Reserve Fund can vary substantially, both month to month and year to year, due not only to variations in revenues, but also to the timing of expenditures, particularly capital expenditures, the Commission's equity contribution towards its Act 44 payment and the Commission's deposit to the Pennsylvania Turnpike Commission Retiree Medical Trust. (See APPENDIX A – THE PENNSYLVANIA TURNPIKE COMMISSION – CERTAIN OTHER INFORMATION – Other Post-Employment Benefit Liabilities.) Further, based on actual expenditures through Fiscal Year 2019, the Commission has utilized $577.6 million in General Reserve Fund balances to: 1) augment its Act 44 payments by $270 million; 2) make contributions to the Retiree Medical Trust of $134.4 million in excess of its annual required contribution; 3) redeem a portion of its Floating Rate Notes at maturity on December 1, 2017 ($100 million) and December 1, 2018 ($50 million); and 4) utilize $23.2 million cash to defease a portion of its outstanding Senior Bonds. In Fiscal Year 2020, the Commission expects its contribution to the Retiree Medical Trust to be lower in future fiscal years. The Commission intends to utilize $100 million in General Reserve Fund balances to support its Act 44 payment, consistent with assumptions made in its Act 44 Financial Plan.

Payment Date, an amount which equals the amount necessary to pay, and for the purpose of paying, one-sixth (1/6) of 115% of the interest due on any Fixed Rate Bonds (or the monthly interest due on any Variable Rate Bonds) issued as Subordinate Revenue Bonds (including the 2019A Subordinate Bonds), on the next succeeding Interest Payment Date, such amount to be calculated based on the applicable Assumed Variable Rate for such Variable Rate Bonds, including any amount due to the Bond Insurer in respect thereto (or, in the case of the period from the date of issuance of such Fixed Rate Bonds or Variable Rate Bonds to the first Interest Payment Date for the applicable Fixed Rate Bonds or Variable Rate Bonds, a monthly amount equal to 115% of the interest amount owed on such first Interest Payment Date (to be calculated based on the applicable Assumed Variable Rate for such Variable Rate Bonds) divided by the number of months from the date of issuance of such Fixed Rate Bond or Variable Rate Bond to such first Interest Payment Date), which amount shall be deposited promptly in the Commission Payments Fund;

(b) On or before the first Business Day of each calendar month commencing on the first Business Day of the twelfth month prior to the next succeeding principal payment date, an amount which equals one-twelfth (1/12) of the amount necessary to pay and for the purpose of paying, 115% of the principal amount (or Compounded Amount, if applicable) of any Fixed Rate Bonds or Variable Rate Bonds issued as Subordinate Revenue Bonds (including the 2019A Subordinate Bonds) maturing on the next succeeding maturity date (or, in the case of the period from the date of issuance of such Fixed Rate Bonds or Variable Rate Bonds to the first date on which principal (or Compounded Amount, if applicable) is due on such Fixed Rate Bonds or Variable Rate Bonds, a monthly amount equal to 115% of the principal amount (or Compounded Amount, if applicable) owed on such first principal maturity date divided by the number of months from the date of issuance of such Fixed Rate Bond or Variable Rate Bond to such first principal maturity date), which amount shall be deposited promptly in the Commission Payments Fund;

(c) On or before the first Business Day of each calendar month commencing on the first Business Day of the twelfth month prior to the next succeeding mandatory sinking fund installment date, an amount which equals one-twelfth (1/12) of the amount necessary to pay, and for the purpose of paying, 115% of the principal amount of any mandatory sinking fund installment of Fixed Rate Bonds or Variable Rate Bonds issued as Subordinate Revenue Bonds (including the 2019A Subordinate Bonds) payable on the next succeeding mandatory sinking fund installment date, which amount shall be deposited promptly in the Commission Payments Fund;

(d) On or before the 10th calendar day of each calendar month commencing on the 10th calendar day of the sixth month prior to the next succeeding Interest Payment Date, but not before the payments required by clauses (a) through (c) above, an amount which equals the amount necessary to pay, and for the purpose of paying, one-sixth (1/6) of 100% of the interest due on any Fixed Rate Bonds (or the monthly interest due on any Variable Rate Bonds) issued as Special Revenue Bonds, on the next succeeding Interest Payment Date, such amount to be calculated based on the applicable Assumed Variable Rate for any Variable Rate Bonds, including any amount due to any Bond Insurer in respect thereto (or, in the case of the period from the date of issuance of such Fixed Rate Bonds or Variable Rate Bonds to the first Interest Payment Date for the applicable Fixed Rate Bonds or Variable Rate Bonds, a monthly amount equal to 100% of the interest amount owed on such first Interest Payment Date (to be calculated at the applicable Assumed Variable Rate for such Variable Rate Bonds) divided by the number of months from the date of issuance of such Fixed Rate Bond or Variable Rate Bond to such first Interest Payment Date), which amount shall be deposited promptly in the Commission Payments Fund;

(e) On or before the 10th calendar day of each calendar month commencing on the 10th calendar day of the twelfth month prior to the next succeeding principal payment date, but not before the payments required by clauses (a) through (d) above, an amount which equals one-twelfth (1/12) of the amount necessary to pay, and for the purpose of paying, 100% of the principal amount (or Compounded Amount, if applicable) of any Fixed Rate Bonds or Variable Rate Bonds issued as Special Revenue Bonds maturing on the next succeeding maturity date (or, in the case of the period from the date of issuance of such Fixed Rate Bonds or Variable Rate Bonds to the first date on which principal (or Compounded Amount, if applicable) is due on such Fixed Rate Bonds or Variable Rate Bonds, a monthly amount equal to 100% of the principal amount (or Compounded Amount, if applicable) owed on such first principal maturity date divided by the number of months from the date of issuance of such Fixed Rate Bond or Variable Rate Bond to such first principal maturity date), which amount shall be deposited promptly in the Commission Payments Fund; and

(f) On or before the 10th calendar day of each calendar month commencing on the 10th calendar day of the twelfth month prior to the next succeeding mandatory sinking fund installment date, but not before the payments required by clauses (a) through (e) above, an amount which equals one-twelfth (1/12) of the amount necessary to pay, and for the purpose of paying, 100% of the principal amount of any mandatory sinking fund installment of Fixed Rate Bonds or Variable Rate Bonds issued as Special Revenue Bonds payable on the next succeeding mandatory sinking fund installment date, which amount shall be deposited promptly in the Commission Payments Fund.

Commission Payments Fund

All Commission Payments will be deposited with the Trustee or in the name of the Trustee with a depositary or depositaries designated by the Commission and approved by the Trustee, to the credit of the Commission Payments Fund created under the Subordinate Indenture (the "**Commission Payments Fund**"). The monies in the Commission Payments Fund are to be held by the Trustee in trust and applied in accordance with the Subordinate Indenture.

Except as otherwise provided in the Subordinate Indenture, transfers from the Commission Payments Fund shall be made to the following funds and in the following order of priority:

(a) Rebate Fund;

(b) Administrative Expenses Fund;

(c) Revenue Bonds Account of the Debt Service Fund;

(d) Special Revenue Bonds Account of the Debt Service Fund;

(e) Debt Service Reserve Fund, if applicable;

(f) Motor License Fund Repayment Fund; and

(g) Residual Fund.

Administrative Expenses Fund

An Administrative Expenses Fund is created pursuant to the Subordinate Indenture. The Trustee shall deposit into the Administrative Expenses Fund from the Commission Payments Fund such amounts as are needed for the payment of Administrative Expenses. In the event of a deficiency in the Rebate Fund, arbitrage rebate, yield reduction or similar payments may be made from amounts in the Administrative Expenses Fund with respect to Subordinate Indenture Bonds. Funds on deposit in the Administrative Expenses Fund may also be used for the payment of annual trustee fees, facility fees, remarketing fees and initial swap payments incurred in connection with the issuance, and performance, of Subordinate Indenture Bonds from time to time.

Debt Service Fund

A Debt Service Fund is created pursuant to the Subordinate Indenture, and within the Debt Service Fund there is established a separate account known as the "Revenue Bonds Account" and the "Special Revenue Bonds Account". Each such Account shall have an "Interest Sub-Account" and a "Principal Sub-Account" for each series or sub-series of tax-exempt and taxable Subordinate Indenture Bonds of such class issued pursuant to the Subordinate Indenture. The Trustee shall make deposits, on the dates required for such deposits, from the Commission Payments Fund into the Revenue Bonds Account and the Special Revenue Bonds Account of the Debt Service Fund of such required amounts to the appropriate sub-accounts. There is also created pursuant to the Subordinate Indenture a Special Revenue Bonds Receipts Account (the "**Special Revenue Bonds Receipts Account**"). Any payments by the Commonwealth out of the Commonwealth's Motor License Fund pursuant to Act 44 with respect to any Special Revenue Bonds shall be deposited into the Special Revenue Bonds Receipts Account solely for payment by the Trustee of principal and interest on Special Revenue Bonds.

There is further created pursuant to the Subordinate Indenture a "Special Revenue Bonds Funded Debt Service Sub-Account" of the Special Revenue Bonds Account of the Debt Service Fund. In the event of any failure by PennDOT or the Treasurer of the Commonwealth to deposit funds transferred from the Motor License Fund into the Special Revenue Bonds Receipts Account for the payment of any interest or principal due on Special Revenue Bonds, then the Trustee shall withdraw such amounts from the Special Revenue Bonds Funded Debt Service Sub-Account and transfer the monies to the Special Revenue Bonds Interest Sub-Account or the Principal Sub-Account, as appropriate, on the applicable Interest Payment Date, principal payment date or mandatory sinking fund installment date. If monies are received from the Motor License Fund subsequent to payments being made from the Special Revenue Bonds Funded Debt Service Sub-Account, then such Motor License Fund monies shall be transferred from the Special Revenue Bonds Receipts Account to the Special Revenue Bonds Funded Debt Service Sub-Account to restore any deficiency thereunder.

The Special Revenue Bonds Funded Debt Service Sub-Account and the Special Revenue Bonds Receipts Account secure Special Revenue Bonds on a parity basis.

On the date of issuance of any series or sub-series of Special Revenue Bonds, the Commission shall deposit, or cause to be deposited, into the Special Revenue Bonds Funded Debt Service Sub-Account, an amount which, together with funds on deposit therein, shall be equal to one-half Maximum Annual Debt Service on all Outstanding Special Revenue Bonds, including those Special Revenue Bonds being issued at the time of the deposit. Such amount shall be the "Special Revenue Bonds Funded Debt Service Sub Account Requirement." The Commission has no obligation to maintain the balance in the Special Revenue Bonds Funded Debt Service Sub-Account equal to the Special Revenue Bonds Funded Debt Service Sub-Account Requirement nor to replenish any funds withdrawn from the Special Revenue Bonds Funded Debt Service Sub-Account from any funds of the Commission, including Commission Payments. Funds on deposit in the Special Revenue Bonds Receipts Account, to the extent not required to make a deposit to the debt service sub-accounts, shall be transferred to the Special Revenue Bonds Funded Debt Service Sub-Account to restore deficiencies therein.

Under and pursuant to Supplemental Subordinate Indenture No. 30, (a) a 2019A Subordinate Bonds Interest Sub-Account and a 2019A Subordinate Bonds Principal Sub-Account of the Revenue Bonds Account of the Debt Service Fund have been created for deposit and disbursement of funds for interest and principal payments on the 2019A Subordinate Bonds pursuant to the provisions of the Subordinate Indenture.

The Trustee and the Commission may create such additional accounts and sub-accounts in the Debt Service Fund as they deem necessary or appropriate, including, but not limited to, (a) an account into which drawings on a Credit Facility are to be deposited and from which principal (including redemption price) and Purchase Price of and interest on the series of Subordinate Indenture Bonds secured by such Credit Facility are to be paid (and upon such payment, amounts on deposit in the Principal and Interest Accounts for such Subordinate Indenture Bonds shall be used to repay the provider of the Credit Facility for such payments), and (b) an account into which payments by the Commission to any Parity Swap Counterparty are to be deposited and from which payments to such Parity Swap Counterparty are to be paid.

The moneys in the Interest and Principal Sub-Accounts shall be held by the Trustee in trust for the benefit of the applicable series or sub-series of Subordinate Indenture Bonds, to the extent the foregoing are payable from such accounts, and, to said extent and pending application, shall be subject to a lien and charge in favor of the Owners of the applicable series or sub-series of Subordinate Indenture Bonds until paid out or transferred as hereinafter provided. There shall be withdrawn from the Interest Account and the Principal Account from time to time and set aside or deposited with the Trustee sufficient money for paying the interest on and the principal of and premium on the Subordinate Indenture Bonds as the same shall become due, except to the extent such interest, principal or other amounts are payable from a fund or account other than the Debt Service Fund as provided in any applicable supplemental indenture.

For any Debt Service Reserve Fund Bonds, if at the time the Trustee is required to make a withdrawal from the Debt Service Fund the moneys therein shall not be sufficient for such purpose, the Trustee shall withdraw the amount of such deficiency from the moneys on deposit in the Debt Service Reserve Fund and transfer the same to the appropriate account of the Debt Service Fund.

Debt Service Reserve Fund

A Debt Service Reserve Fund has been established under the Subordinate Indenture to provide additional security for Debt Service Reserve Fund Bonds. The Debt Service Reserve Fund secures Debt Service Reserve Fund Bonds on a parity basis. The 2019A Subordinate Bonds are Debt Service Reserve Fund Bonds for the purpose of the Subordinate Indenture and, accordingly, are secured by moneys on deposit in the Debt Service Reserve Fund. Upon the deposit of additional monies in the Debt Service Reserve Fund in connection with the issuance of the 2019A Subordinate Bonds, as described in "PLAN OF FINANCE", the balance on deposit in the Debt Service Reserve Fund will be sufficient to fulfill the Debt Service Reserve Fund Requirement of the Subordinate Indenture with respect to the 2019A Subordinate Bonds and all other outstanding Debt Service Reserve Fund Bonds. Upon the issuance of the 2019A Subordinate Bonds, the Commission will have $5,430,065,089.90 of outstanding Debt Service Reserve Fund Bonds under the Subordinate Indenture (including compounded amounts as of June 1, 2019 for outstanding capital appreciation bonds). **The currently outstanding Special Revenue Bonds are not Debt Service Reserve Fund Bonds under the Subordinate Indenture**.

The Subordinate Indenture requires that the balance in the Debt Service Reserve Fund be maintained at the "Debt Service Reserve Requirement," which is an amount equal to the lesser of (i) Maximum Annual Debt Service on account of all Debt Service Reserve Fund Bonds, (ii) ten percent (10%) of the aggregate Outstanding principal amount of all Debt Service Reserve Fund Bonds, or (iii) 125% of average Annual Debt Service for all Debt Service Reserve Fund Bonds for each Fiscal Year for the remaining life of such Bonds, provided in any case that such amount does not exceed what is permitted by the Code. Debt Service Reserve Fund Bonds include Long-Term Indebtedness specified by the Commission in the Subordinate Indenture or applicable supplemental indenture as being secured by the Debt Service Reserve Fund.

In each Fiscal Year, after first having made the deposits required to the Debt Service Fund, the Commission shall pay out of the General Reserve Fund into the Commission Payments Fund and the Trustee shall transfer from the Commission Payments Fund on or before the last day of each month to the credit of the Debt Service Reserve Fund (a) the amount, if any, required to make the amount on deposit in the Debt Service Reserve Fund equal to the Debt Service Reserve Requirement, which restoration, as required by the Rate Covenant, is intended to occur within eighteen (18) months; and (b) the amount set forth in the applicable supplemental indenture if an amount different from the Debt Service Reserve Requirement is required.

Subject to the preceding paragraph, to the extent accounts are created in the Debt Service Reserve Fund for Debt Service Reserve Fund Bonds, the funds and DSRF Security (as defined below) held therein shall be available to make payments required under the Subordinate Indenture for the benefit of all Debt Service Reserve Fund Bonds.

Moneys held in the Debt Service Reserve Fund shall be used for the purpose of paying interest on, and maturing principal (or Compounded Amount, if applicable) and mandatory sinking fund redemption price of, Debt Service Reserve Fund Bonds whenever and to the extent that the moneys held for the credit of the Debt Service Fund shall be insufficient for such purpose. If at any time the moneys and the principal amount of any DSRF Security held in the Debt Service Reserve Fund shall exceed the Debt Service Reserve Requirement, the Commission shall direct whether such excess moneys shall be transferred by the Trustee to the credit of the Commission Payments Fund or used to reduce the principal amount of any DSRF Security.

In the event the Trustee shall be required to withdraw funds from the Debt Service Reserve Fund to restore a deficiency in the Debt Service Fund arising with respect to Debt Service Reserve Fund Bonds, the funds shall be allocated, subject to the provisions of the Subordinate Indenture, pro rata among all Debt Service Reserve Fund Bonds.

In lieu of the deposit of moneys into the Debt Service Reserve Fund, the Commission may cause to be provided a surety bond, an insurance policy, a letter of credit or similar financial instrument satisfactory to the Rating Agency (as evidenced by a letter from the Rating Agency confirming that such surety bond, insurance policy, letter of credit or similar financial instrument will not result in the rating on any outstanding Debt Service Reserve Fund Bonds being downgraded) (each, a "**DSRF Security**") payable to the Trustee in an amount equal to the difference between the Debt Service Reserve Requirement and the amounts then on deposit in the Debt Service Reserve Fund. The DSRF Security shall be payable (upon the giving of notice as required thereunder) on any Interest Payment Date on which moneys will be required to be withdrawn from the Debt Service Reserve Fund and applied to the payment of the principal of (or Compounded Amount, if applicable) or interest on any Subordinate Indenture Bonds to the extent that such withdrawals cannot be made by amounts on deposit in the Debt Service Reserve Fund.

If a disbursement is made pursuant to a DSRF Security, the Commission shall be obligated either (a) to reinstate the maximum limits of such DSRF Security or (b) to deposit into the Debt Service Reserve Fund, funds in the amount of the disbursement made under such DSRF Security, or a combination of such alternatives, as shall provide that the amount credited to the Debt Service Reserve Fund equals the Debt Service Reserve Requirement within a time period of eighteen (18) months.

If the DSRF Security shall cease to satisfy the requirements set forth in the second preceding paragraph regarding Rating Agency confirmation, the Commission shall use reasonable efforts to replace such DSRF Security with one having the required rating, but shall not be obligated to pay, or commit to pay, increased fees, expenses or interest in connection with such replacement or to deposit revenues in the Debt Service Reserve Fund in lieu of replacing such DSRF Security with another.

As of the date of issuance of the 2019A Subordinate Bonds, it is not expected that any portion of the Debt Service Reserve Fund Requirement will be satisfied with any DSRF Security.

Motor License Fund Repayment Fund

Under the terms of the Subordinate Indenture, there is created a Motor License Fund Repayment Fund. Based on such time schedule as agreed to by the Commission and PennDOT and furnished to the Trustee, the Trustee shall deposit into the Motor License Fund Repayment Fund from the Commission Payments Fund and the Residual Fund such amounts as are necessary and available to repay to the Commonwealth's Motor License Fund any debt service payments with respect to any Special Revenue Bonds which are made out of such Motor License Fund. The failure to make any such payments shall not be an Event of Default under the Subordinate Indenture. The Subordinate Revenue Bonds are not payable from funds held in the Motor License Fund Repayment Fund, as the 2019A Subordinate Bonds do not constitute Special Revenue Bonds.

Residual Fund

A Residual Fund is created under the Subordinate Indenture. After making all payments required under the Subordinate Indenture, the Trustee shall at least annually deposit into the Residual Fund out of the Commission Payments Fund such amounts from the Commission Payments Fund as are in excess of current debt service and other required payments and deposits pursuant to the Subordinate Indenture.

Moneys in the Residual Fund may be expended by the Commission to restore deficiencies in any funds or accounts created under the Subordinate Indenture (including without limitation the Revenue Bonds Principal and Interest Sub-Accounts) and, absent any such deficiency, for any of the following purposes, with no one item having priority over any of the others: (a) to purchase or redeem Subordinate Indenture Bonds; (b) to secure and pay the principal or redemption price of and interest on any Parity Obligations; or (c) to further any corporate purpose.

Pursuant to the written request of the Commission, the Trustee shall transfer to the General Reserve Fund of the Senior Indenture any balance in the Residual Fund not required to restore any deficiency in a fund or account established thereunder.

Future Commission Financings

See APPENDIX A − "THE PENNSYLVANIA TURNPIKE COMMISSION - CERTAIN FINANCIAL INFORMATION − Future Financing Considerations" for a discussion of future financings planned or contemplated by the Commission.

CERTAIN RISK FACTORS

Many factors could affect the sufficiency of the Trust Estate to meet debt service payments on the 2019A Subordinate Bonds, some of which are discussed below. Potential investors must carefully consider the following factors in order to understand the structure and characteristics of the 2019A Subordinate Bonds and the potential merits and risks of an investment in the 2019A Subordinate Bonds. Potential investors must review and be familiar with a variety of risk factors in deciding whether to purchase any 2019A Subordinate Bonds. The following risk factors are among those which should be considered by a potential investor:

Commission Revenues may decline

The actual amount of future toll revenues collected by the Commission depends upon a number of factors, including rates established by the Commission and the level and composition of traffic on the System. Many of these factors are beyond the control of the Commission. The Commission is obligated under the terms of the Amended Funding Agreement (as such term is defined in the Subordinate Indenture), Act 44 and Act 89, the Senior Indenture and the Subordinate Indenture to fix and revise tolls at levels that will generate revenues (together with other available moneys) sufficient to pay all of its obligations under the Amended Funding Agreement (as such term is defined in the Subordinate Indenture), to construct and maintain the System and to pay debt service obligations and other amounts payable to PennDOT or the Commonwealth. However, the amount of traffic on the System cannot be predicted with certainty and may decline due to general economic conditions, diversion of some traffic to alternative non-toll routes to avoid toll rate increases or because of increased fuel costs, increased mileage standards, higher fuel taxes or other factors. There is insufficient data to assess these risk factors fully. However, based on historical variations in such factors and the recent toll increases, the Commission reasonably expects to have sufficient revenues to meet its payment obligations, including payment obligations with respect to the 2019A Subordinate Bonds. But see APPENDIX A – "THE PENNSYLVANIA TURNPIKE COMMISSION - CERTAIN FINANCIAL INFORMATION - Performance Audit by the Auditor General."

In addition, as set forth in the Traffic Study, there is considerable uncertainty inherent in future traffic and revenue forecasts for any toll facility, and differences between forecasted and actual results (which may be material) may occur due to events and circumstances beyond the control of the forecasters, including without limitation economic conditions and other factors. See APPENDIX G - "TRAFFIC AND REVENUE STUDY." While future traffic volume and revenues cannot be predicted with certainty, the Commission reasonably expects that it will have sufficient revenue to meet the then existing debt and operational obligations of the Commission. But see APPENDIX A – "THE PENNSYLVANIA TURNPIKE COMMISSION - CERTAIN FINANCIAL INFORMATION - Performance Audit by the Auditor General."

Investors in the 2019A Subordinate Bonds bear greater risk of nonpayment because the priority of payment of interest and principal on the 2019A Subordinate Bonds is subordinate to the Senior Indenture Parity Obligations under the Senior Indenture

The 2019A Subordinate Bonds are subordinate in right of payment from the General Reserve Fund to the payment of all Senior Indenture Parity Obligations under the Senior Indenture. The 2019A Subordinate Bonds are not secured by the General Reserve Fund established under the Senior Indenture. In addition, it is probable that additional Senior Revenue Bonds and other senior obligations may be issued in the future by the Commission under the Senior Indenture, which would increase the amount of Senior Indenture Parity Obligations to which the payment on the 2019A Subordinate Bonds are subordinated, thus increasing the risk of nonpayment to the 2019A Subordinate Bondholders.

The Trust Estate will have limited assets from which to make payments on the 2019A Subordinate Bonds, which may result in losses

The Trust Estate will not include significant assets. The Trust Estate consists primarily of an obligation of the Commission to make periodic payments from funds available in the General Reserve Fund after satisfaction of Senior Indenture Parity Obligations and the maintenance of any reserve fund established under the Senior Indenture. Consequently, holders of the 2019A Subordinate Bonds must rely upon the obligation of the Commission to make such payments from the General Reserve Fund and to set Tolls at sufficient levels to generate the necessary excess cash in the General Reserve Fund for such payments.

If the Commission experiences financial problems, delays in payment or losses on the 2019A Subordinate Bonds may result

Adverse changes in the Commission's financial condition could result in a failure to make its payments, or a delay in payments, to the Trustee with respect to the 2019A Subordinate Bonds. In addition to a potential decline in revenues, the Commission's financial condition could be adversely affected by a number of factors including, but not limited to:

- Increased and/or unanticipated costs of operation and maintenance of the System;
- Decreased toll revenues due to declines in usage or otherwise;
- Work stoppage, slowdown or action by unionized employees;
- Increased mass transit systems;
- Complete or partial destruction or temporary closure of the System due to events beyond the control of the Commission;
- Increased unfunded pension benefits;
- Increased unfunded healthcare and other non-pension post-employment benefits;
- Failure to pay the purchase price on outstanding floating rates notes or other variable rate obligations issued by the Commission subject to maturity or mandatory tender;

- Increased fuel costs; and
- Claims or adverse litigation judgments for monetary damages not covered by insurance.

The Commission's financial condition may be adversely affected as a consequence of adverse changes in the financial condition of third-party financial institutions

Adverse changes in the financial condition of certain third-party financial institutions may adversely affect the Commission's financial position. Different types of investment and contractual arrangements may create exposure for the Commission to such institutions including:

- Risk to the Commission's investment portfolio due to defaults or changes in market valuation of the debt securities of such institutions; and
- Counterparty risk related to swaps used by the Commission to hedge its cost of funds.

The 2019A Subordinate Bonds may be repaid early due to the exercise of the redemption option. If this happens, yield may be affected and 2019A Subordinate Bondholders will bear reinvestment risk

The 2019A Subordinate Bonds may be redeemed prior to their final maturity if the Commission exercises its option to redeem the 2019A Subordinate Bonds. Bondholders bear the risk that monies received upon such redemption cannot be reinvested in comparable securities or at comparable yields.

Litigation and Other Actions Against the Commission

The Commission is subject to litigation from time to time and may be subject to litigation and other actions in the future which could adversely affect the financial position of the Commission. The Commission cannot predict when or if any action will be brought against the Commission in the future, and, if brought, whether any action would be successful or result in monetary damages or other relief being imposed upon the Commission. See "LITIGATION" below. See also APPENDIX A — "THE PENNSYLVANIA TURNPIKE COMMISSION — THE COMMISSION – Recent Developments and Pending Legislation – *Commission Litigation*".

United States District Court for the Middle District of Pennsylvania

A class action lawsuit has been brought by several individuals, entities and associations involved in or related to the commercial trucking industry (the "*Trucking Plaintiffs*") against the Commission, several individuals in their individual capacity and in their official capacity related to the Commission, an individual in her individual capacity and in her official capacity as Chair of the Commission and as Secretary of Transportation and Governor Wolf, in both his individual and official capacity (the "*Defendants*").

The lawsuit sought, among other things, the following injunctive remedies: (1) a permanent injunction enjoining the Commission from issuing any further bonds or incurring any additional debt for the purpose of making Act 44/89 payments; and (2) a permanent injunction prohibiting the Commission from using toll revenues to make payments on outstanding bonds issued to meet Act 44/89 obligations. Moreover, the lawsuit seeks certain monetary damages including a refund of a portion of certain tolls allegedly imposed upon the Trucking Plaintiffs' use of the System in excess of what was reasonably necessary to pay for the cost of operating and maintaining the System, together with any legally applicable interest and other compensation.

On April 4, 2019, the District Court granted the Commission's motions to dismiss the Trucking Plaintiffs' complaint. By Notice of Appeal filed on April 4, 2019, the Trucking Plaintiffs provided notice of its appeal to the United States Court of Appeals for the Third Circuit of the District Court's decision. On April 18, 2019, the Third Circuit granted a joint motion to expedite the case. See "LITIGATION – Certain Litigation" and APPENDIX A – "THE PENNSYLVANIA TURNPIKE COMMISSION – THE COMMISSION – Recent Developments and Pending Legislation – *Commission Litigation*" for a description of such litigation and the Commission's assessment of any potential impact on the Trust Estate.

The Commission and the other Defendants will continue to vigorously defend Act 44/89 and the propriety of the Commission's imposition and use of the Turnpike Toll revenues in court. No assurance can be given as to the results of the appeal or the effect of such appeal on the Commission.

In conducting its process for hiring bond counsel, the Commission spoke with various law firms about their interest in serving in this role, some of which declined to accept the engagement in light of the current status of the Trucking Plaintiffs' litigation.

Certain legislative actions may result in adverse changes to the Commission or Act 44 or Act 89

From time to time legislation is introduced in the Pennsylvania General Assembly which may affect the Commission and therefore may affect certain of the assumptions made in this Official Statement. The Commission cannot predict if any of such bills or other legislation will be enacted into law, or how any such legislation may affect the Commission's ability to timely pay the 2019A Subordinate Bonds. See APPENDIX A — "THE PENNSYLVANIA TURNPIKE COMMISSION — THE COMMISSION –Recent Developments and Pending Legislation."

Bankruptcy risk; lien position

The rights and remedies of Bondholders could be limited by the provisions of the Federal Bankruptcy Code, as now or hereafter enacted (the "***Bankruptcy Code***"), or by other laws or legal or equitable principles which may affect the enforcement of creditors' rights. Chapter 9 of the Bankruptcy Code permits, under prescribed circumstances, a political subdivision or public agency or instrumentality of a state, such as the Commission, to commence a voluntary bankruptcy proceeding and to file a plan of adjustment in the repayment of its debts, if such entity is generally not paying its debts as they become due (unless such debts are the subject of a bona fide dispute), or is unable to pay its debts as they become due. Under the Bankruptcy Code, an involuntary petition cannot be filed against a political subdivision, public agency or instrumentality of a state.

In order to proceed under Chapter 9 of the Bankruptcy Code, state law must authorize the political subdivision, public agency or instrumentality to file a petition under the Bankruptcy Code. THE ENABLING ACTS DO NOT CURRENTLY AUTHORIZE THE COMMISSION TO FILE A PETITION UNDER THE BANKRUPTCY CODE.

Payment of the 2019A Subordinate Bonds is not secured by a lien on any funds on deposit in the General Reserve Fund established under the Senior Indenture or on any toll revenues collected by the Commission. The 2019A Subordinate Bonds are secured solely by the Commission Payments and funds held under the Subordinate Indenture (excluding the Rebate Fund and as otherwise described herein). Only the Special Revenue Bonds are entitled to payments from the Motor License Fund. In the event of insolvency of the Commission, any claim of the Bondholders, to the extent not satisfied from the Trust Estate, would be a general unsecured claim.

Reductions in federal subsidy payable to the Commission for its outstanding Build America Bonds due to sequestration

A series of automatic federal deficit reduction spending cuts known as "sequestration" became effective on March 1, 2013 as a result of the failure by Congress to adopt alternative deficit reduction legislation; recent legislation has extended sequestration through the 2024 federal fiscal year. Sequestration will affect the federal subsidy payable to the Commission with respect to its outstanding Build America Bonds. The Commission currently has $1,104,675,000 in principal amount of Build America Bonds outstanding, and is entitled to receive approximately $22,387,000 in federal subsidy annually with respect to such Build America Bonds. Based on guidance issued by the Internal Revenue Service (the "***IRS***") in March 2013, the amount of such federal subsidy payable to the Commission was reduced by 8.7% or approximately $1,947,699 for payments through September 30, 2013. Pursuant to the Bipartisan Budget Act of 2013 (Public Law 113-67), such federal subsidy was reduced by 7.2% or approximately $1,611,864 for payments through September 30, 2014. Based on guidance issued by the IRS in October 2014, such federal subsidy was reduced by 7.3% or $1,634,251 for payments from October 1, 2014 through September 30, 2015. Based on guidance issued by the IRS in August 2015, such federal subsidy was reduced by 6.8% or $1,522,308 for payments from October 1, 2015 through September 30, 2016. Based on guidance issued by the IRS in August 2016, such federal subsidy was reduced by 6.9% or $1,544,694 for payments from October 1, 2016 through September 30, 2017. Based on guidance issued by the IRS, such federal subsidy was reduced by 6.6% or $1,477,533 for payments from October 1, 2017 through September 30, 2018, and will be reduced by 6.2% or $1,387,986 for payments from October 1, 2018 through September 30, 2019. The sequestration reduction rate will be applied unless and until a law is enacted that cancels or otherwise impacts the sequester, at which time the sequestration reduction rate is subject to change. Reductions in future federal fiscal years are currently unknown. Adverse changes in the amount of the federal subsidy the Commission receives on its Build America Bonds will require the Commission to use other funds to offset the loss of this subsidy.

Uncertainty as to available remedies

The remedies available to owners of the 2019A Subordinate Bonds upon an Event of Default under the Subordinate Indenture or other documents described herein are in many respects dependent upon regulatory and judicial actions which often are subject to discretion and delay. Under existing constitutional and statutory law and judicial decisions, the remedies specified by the Subordinate Indenture and such other documents may not be readily available or may be limited. The various legal opinions to be delivered concurrently with the issuance of the 2019A Subordinate Bonds will be qualified, as to the enforceability of the various legal instruments, by limitations imposed by bankruptcy, reorganization, insolvency or other similar laws affecting the rights of creditors generally.

The 2019A Bonds are not subject to acceleration

Payment of principal of and interest on the 2019A Bonds may not be accelerated upon the occurrence of an Event of Default under the Subordinate Indenture.

Possible changes in federal tax laws could affect the excludability or deductibility of interest on tax-exempt bonds such as the 2019A Subordinate Bonds

Current and future legislative proposals, if enacted into law, could cause some or all of the interest on the 2019A Subordinate Bonds to be subject, directly or indirectly, to federal income taxation, or to be subject to or not be exempted from state income taxation, or otherwise prevent the owners of the 2019A Subordinate Bonds from realizing the full current benefit of the tax status of such interest. The introduction and/or enactment of any such legislative proposals may also affect the market price for, or marketability of, the 2019A Subordinate Bonds. Prospective purchasers of the 2019A Subordinate Bonds should consult their own tax advisors regarding any pending or proposed federal tax legislation, as to which Bond Counsel will express no opinion. See "TAX MATTERS."

The FCA Announcement, changes to LIBOR determination methods or other reforms to LIBOR could increase debt service and other payment obligations under the Commissioner's FRNs and Swaps

On July 27, 2017, the Financial Conduct Authority announced that it will no longer persuade or compel banks to submit rates for the calculation of LIBOR rates after 2021 (the "FCA Announcement"). Many of the Commission's Swaps and FRNs use a LIBOR based rate as a reference rate for determining the interest rate and/or other payment obligations thereunder. It is not possible to predict the effect of the FCA Announcement, any changes in the methods pursuant to which LIBOR rates are determined, or any other reforms to LIBOR that may be enacted, any of which may adversely affect the determination of LIBOR rates or result in the phasing out of LIBOR as a reference rate. Any such effects could result in a sudden or prolonged increase or decrease in reported LIBOR rates, or result in the replacement of LIBOR with other reference rates, and could significantly increase debt service payable on the Commission's FRNs and/or have a negative impact on the market value of the Commission's Swaps and payment obligations thereunder.

Bond Insurance Risk Factors

In the event of a default in the scheduled payment of principal or interest with respect to the Insured Term Bond when all or some becomes due, the Trustee, on behalf of the owners of the Insured Term Bond, shall have a claim under the Municipal Bond Insurance Policy issued by AGM (the "Policy") for such payments. However, in the event of any acceleration of the due date of such principal by reason of mandatory or optional redemption or acceleration resulting from default or otherwise, other than any advancement of maturity pursuant to a mandatory sinking fund payment, the payments are to be made in such amounts and at such times as such payments would have been due had there not been any such acceleration. The Policy does not insure redemption premium, if any, payable on the Insured Term Bond. The payment of principal and interest in connection with mandatory or optional prepayment of the Insured Term Bond by the issuer which is recovered by the issuer from the bond owner as a voidable preference under applicable bankruptcy law is covered by the insurance policy, however, such payments will be made by AGM at such time and in such amounts as would have been due absence such prepayment by the Issuer unless AGM chooses to pay such amounts at an earlier date.

A default of payment of principal and interest or any other event that results in an acceleration of the Insured Term Bond does not accelerate the obligations of AGM under the Policy unless AGM elects to pay such amounts in its discretion. AGM may direct and must consent to any remedies with respect to the Insured Term Bond and AGM's consent may be required in connection with amendments to any applicable bond documents.

In the event AGM is unable to make a scheduled payment of principal and interest as such payments become due under the Policy, the Insured Term Bond is payable solely from the moneys received pursuant to the applicable bond documents. In the event AGM becomes obligated to make payments with respect to the Insured Term Bond, no assurance is given that such event will not adversely affect the market price of the Bonds or the marketability (liquidity) for the Insured Term Bond.

The long-term ratings on the Insured Term Bond are dependent in part on the financial strength of AGM and its claim paying ability. AGM's financial strength and claims paying ability are predicated upon a number of factors which could change over time. No assurance is given that the long-term ratings of AGM and of the ratings on the Insured Term Bond will not be subject to downgrade and such event could adversely affect the market price of the Insured Term Bond or the marketability (liquidity) for the Insured Term Bond. See description of RATINGS herein.

The obligations of AGM are unsecured contractual obligations of AGM and in an event of default by AGM, the remedies available may be limited by applicable insurance law or other laws related to insolvency.

Neither the Issuer or Underwriter have made independent investigation into the claims paying ability of AGM and no assurance or representation regarding the financial strength or projected financial strength of AGM is given. Thus, when making an investment decision, potential investors should carefully consider the ability of the Issuer to pay principal and interest on the Insured Term Bond and the claims paying ability of the Bond Insurer, particularly over the life of the investment. See "Bond Insurance" herein for further information provided by AGM and the Policy, which includes further instructions for obtaining current financial information concerning AGM.

BOND INSURANCE

Bond Insurance Policy

Concurrently with the issuance of the 2019A Subordinate Bonds, Assured Guaranty Municipal Corp. ("AGM") will issue its Municipal Bond Insurance Policy (the "Policy") for the 2019A Subordinate Bond maturing on December 1, 2049 in the aggregate principal amount of $131,115,000 priced at 106.131% (the "Insured Term Bond"). The Policy guarantees the scheduled payment of principal of and interest on the Insured Term Bond when due as set forth in the form of the Policy included as Exhibit H to this Official Statement.

The Policy is not covered by any insurance security or guaranty fund established under New York, California, Connecticut or Florida insurance law.

Assured Guaranty Municipal Corp.

AGM is a New York domiciled financial guaranty insurance company and an indirect subsidiary of Assured Guaranty Ltd. ("AGL"), a Bermuda-based holding company whose shares are publicly traded and are listed on the New York Stock Exchange under the symbol "AGO". AGL, through its operating subsidiaries, provides credit enhancement products to the U.S. and global public finance, infrastructure and structured finance markets. Neither AGL nor any of its shareholders or affiliates, other than AGM, is obligated to pay any debts of AGM or any claims under any insurance policy issued by AGM.

AGM's financial strength is rated "AA" (stable outlook) by S&P Global Ratings, a business unit of Standard & Poor's Financial Services LLC ("S&P"), "AA+" (stable outlook) by Kroll Bond Rating Agency, Inc. ("KBRA") and "A2" (stable outlook) by Moody's Investors Service, Inc. ("Moody's"). Each rating of AGM should be evaluated independently. An explanation of the significance of the above ratings may be obtained from the applicable rating agency. The above ratings are not recommendations to buy, sell or hold any security, and such ratings are subject to revision or withdrawal at any time by the rating agencies, including withdrawal initiated at the request of AGM in its sole discretion. In addition, the rating agencies may at any time change AGM's long-term rating outlooks or place such ratings on a watch list for possible downgrade in the near term. Any downward revision or withdrawal of any of the above ratings, the assignment of a negative outlook to such ratings or the placement of such ratings on a negative watch list may have an adverse effect on the market price of any security guaranteed by AGM. AGM only guarantees scheduled principal and scheduled interest payments payable by the issuer of bonds insured by AGM on the date(s) when such amounts were initially scheduled to become due and payable (subject to and in accordance with the terms of the relevant insurance policy), and does not guarantee the market price or liquidity of the securities it insures, nor does it guarantee that the ratings on such securities will not be revised or withdrawn.

Current Financial Strength Ratings

On December 21, 2018, KBRA announced it had affirmed AGM's insurance financial strength rating of "AA+" (stable outlook). AGM can give no assurance as to any further ratings action that KBRA may take.

On June 26, 2018, S&P announced it had affirmed AGM's financial strength rating of "AA" (stable outlook). AGM can give no assurance as to any further ratings action that S&P may take.

On May 7, 2018, Moody's announced it had affirmed AGM's insurance financial strength rating of "A2" (stable outlook). AGM can give no assurance as to any further ratings action that Moody's may take.

For more information regarding AGM's financial strength ratings and the risks relating thereto, see AGL's Annual Report on Form 10-K for the fiscal year ended December 31, 2018.

Capitalization of AGM

At March 31, 2019:

- The policyholders' surplus of AGM was approximately $2,523 million.

- The contingency reserves of AGM and its indirect subsidiary Municipal Assurance Corp. ("MAC") (as described below) were approximately $1,054 million. Such amount includes 100% of AGM's contingency reserve and 60.7% of MAC's contingency reserve.

- The net unearned premium reserves and net deferred ceding commission income of AGM and its subsidiaries (as described below) were approximately $1,848 million. Such amount includes (i) 100% of the net unearned premium reserve and deferred ceding commission income of AGM, (ii) the net unearned premium reserves and net deferred ceding commissions of AGM's wholly owned subsidiary Assured Guaranty (Europe) plc ("AGE"), and (iii) 60.7% of the net unearned premium reserve of MAC.

The policyholders' surplus of AGM and the contingency reserves, net unearned premium reserves and deferred ceding commission income of AGM and MAC were determined in accordance with statutory accounting principles. The net unearned premium reserves and net deferred ceding commissions of AGE were determined in accordance with accounting principles generally accepted in the United States of America.

Incorporation of Certain Documents by Reference

Portions of the following documents filed by AGL with the Securities and Exchange Commission (the "SEC") that relate to AGM are incorporated by reference into this Official Statement and shall be deemed to be a part hereof:

(i) the Annual Report on Form 10-K for the fiscal year ended December 31, 2018 (filed by AGL with the SEC on March 1, 2019); and

(ii) the Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019 (filed by AGL with the SEC on May 10, 2019).

All consolidated financial statements of AGM and all other information relating to AGM included in, or as exhibits to, documents filed by AGL with the SEC pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, excluding Current Reports or portions thereof "furnished" under Item 2.02 or Item 7.01 of Form 8-K, after the filing of the last document referred to above and before the termination of the offering of the Insured Term Bond shall be deemed incorporated by reference into this Official Statement and to be a part hereof from the respective dates of filing such documents. Copies of materials incorporated by reference are available over the internet at the SEC's website at http://www.sec.gov, at AGL's website at http://www.assuredguaranty.com, or will be provided upon request to Assured Guaranty Municipal Corp.: 1633 Broadway, New York, New York 10019, Attention: Communications Department (telephone (212) 974-0100). Except for the information referred to above, no information available on or through AGL's website shall be deemed to be part of or incorporated in this Official Statement.

Any information regarding AGM included herein under the caption "BOND INSURANCE – Assured Guaranty Municipal Corp." or included in a document incorporated by reference herein (collectively, the "AGM Information") shall be modified or superseded to the extent that any subsequently included AGM Information (either directly or through incorporation by reference) modifies or supersedes such previously included AGM Information. Any AGM Information so modified or superseded shall not constitute a part of this Official Statement, except as so modified or superseded.

Miscellaneous Matters

AGM makes no representation regarding the Insured Term Bond or the advisability of investing in the Insured Term Bond. In addition, AGM has not independently verified, makes no representation regarding, and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding AGM supplied by AGM and presented under the heading "BOND INSURANCE".

AUDITED FINANCIAL STATEMENTS

The financial statements of the Commission for the years ended May 31, 2018 and May 31, 2017 are set forth in APPENDIX B - "AUDITED FINANCIAL STATEMENTS: 2018 and 2017" audited by Mitchell Titus, LLP in its capacity as the Commission's Independent Auditor. Mitchell Titus, LLP has not been engaged to perform and has not performed, since the date of its auditor's report, any procedures on the financial statements addressed in that report. Additionally, Mitchell Titus, LLP has not performed any procedures related to this Official Statement or other debt-related offering documents.

CONTINUING DISCLOSURE

The Commission will enter into a Continuing Disclosure Undertaking for the benefit of the Registered Owners from time to time of the 2019A Subordinate Bonds (the "**Disclosure Undertaking**") pursuant to Rule 15c2-12 promulgated by the SEC under the Securities Act of 1933, as amended (the "**Rule**").

Pursuant to the Disclosure Undertaking, the Commission will provide or cause to be provided to the Municipal Securities Rulemaking Board (the "**MSRB**"), via electronic transmissions pursuant to the MSRB's Electronic Municipal Market Access System ("**EMMA**"), accessible at http://emma.msrb.org, the following information and notices:

(a) Within 180 days of the end of each fiscal year of the Commission commencing with the fiscal year ending May 31, 2020, annual financial information (collectively, the "**Annual Financial Information**"), consisting of: (i) financial and operating data of the type set forth in this Official Statement in Tables I, II and III contained in APPENDIX A − "THE PENNSYLVANIA TURNPIKE COMMISSION − CERTAIN FINANCIAL INFORMATION"; (ii) the Commission's audited financial statements for such fiscal year; and (iii) a summary of any material legislative or regulatory developments affecting Act 44 or Act 89 since the Commission's most recent annual financial information filing. The Commission's audited financial statements shall be prepared in accordance with generally accepted accounting principles consistently applied as in effect from time to time; provided, however, that the Commission reserves the right to change the basis upon which its audited financial statements are prepared at any time and from time to time. Should the Commission exercise its right to change the basis upon which its audited financial statements are prepared as provided in the immediately preceding sentence, it shall provide notice of any such accounting change to the MSRB via EMMA, which notice shall include a reference to the specific federal or state law or regulation requiring or permitting such accounting change and a description of such change. In the event that the Commission's audited financial statements are not available within 180 days of the close of the applicable fiscal year, the Annual Financial Information will contain unaudited financial statements and the audited financial statements will be provided for filing when available.

(b) Notice of the occurrence of any of the following events with respect to the 2019A Subordinate Bonds, within ten (10) business days after the occurrence of such event (each, a "Reportable Event"): (i) principal and interest payment delinquencies; (ii) non-payment related defaults, if material; (iii) unscheduled draws on debt service reserves reflecting financial difficulties; (iv) unscheduled draws on credit enhancements reflecting financial difficulties; (v) substitution of credit or liquidity providers, or their failure to perform; (vi) adverse tax opinions, the issuance by the IRS of proposed or final determinations of taxability, notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the 2019A Subordinate Bonds or other material events affecting the tax status of the 2019A Subordinate Bonds; (vii) modifications to rights of holders of the 2019A Subordinate Bonds, if material; (viii) optional or unscheduled 2019A Subordinate Bond calls, if material, and tender offers; (ix) defeasances; (x) release, substitution, or sale of property securing repayment of the 2019A Subordinate Bonds, if material; (xi) rating changes; (xii) bankruptcy, insolvency, receivership or similar proceedings or events involving the Commission; (xiii) consummation of a merger, consolidation or acquisition involving the Commission or the sale of all or substantially all of the assets of the Commission, other than in the ordinary course of business, the entry of a definitive agreement to undertake such an action or the termination of a definitive agreement relating to such actions, other than pursuant to its terms, if material; (xiv) appointment of a successor or additional trustee or the change of name of a trustee, if material; (xv) incurrence of a financial obligation (as defined in the Rule) of the Commission, if material, or agreement to covenants, events of defaults, remedies, priority rights, or other similar terms of a financial obligation of the Commission, any of which affect security holders, if material; and (xvi) default, event of acceleration, termination event, modification of terms, or other similar events under the terms of the financial obligation of the Commission, any of which reflect financial difficulties.

The foregoing sixteen (16) events are quoted from the Rule. The SEC requires the listing of the events listed in clauses (i) through (xvi) above, although some of such events may not be applicable to the 2019A Subordinate Bonds. For example, the events listed in clauses (iv) and (v) are not applicable to the 2019A Subordinate Bonds because there is no credit or liquidity enhancement providing for the payment of the 2019A Subordinate Bonds.

The Commission has agreed pursuant to the Disclosure Agreement to provide in a timely manner to the MSRB notice of a failure (of which the Commission has knowledge) to provide the required Annual Financial Information or notice of a Reportable Event on or before the date specified above.

The Commission may amend the Disclosure Undertaking and waive any of the provisions thereof, but no such amendment or waiver shall be executed and effective unless: (i) the amendment or waiver is made in connection with a change in legal requirements, change in law or change in the identity, nature or status of the Commission or the governmental operations conducted by the Commission; (ii) the Disclosure Undertaking, as modified by the amendment or waiver, would have been the written undertaking contemplated by the Rule at the time of original issuance of the 2019A Subordinate Bonds, taking into account any amendments or interpretations of the Rule; and (iii) the amendment or waiver does not materially impair the interests of the Registered Owners of the 2019A Subordinate Bonds. Evidence of compliance with the foregoing conditions shall be satisfied by delivery to the Commission of an opinion of counsel having recognized skill and experience in the issuance of municipal securities and federal securities law to the effect that the amendment or waiver satisfies the conditions set forth in the preceding sentence. Notice of any amendment or waiver shall be filed by the Commission with the MSRB (via EMMA) and shall be sent to the Registered Owners of the 2019A Subordinate Bonds.

The Disclosure Undertaking will recite that it is entered into for the benefit of the Registered Owners from time to time of the 2019A Subordinate Bonds. For the purposes of the Disclosure Undertaking, for so long as the 2019A Subordinate Bonds are registered in the name of DTC or its nominee, "Registered Owner" shall mean and include the holder of a book-entry credit evidencing an interest in the 2019A Subordinate Bonds. Holders of book-entry credits may file their names and addresses with the Commission for the purposes of receiving notices or giving direction under the Disclosure Undertaking.

A default under the Disclosure Undertaking shall not be deemed to be a default under the 2019A Subordinate Bonds, the Subordinate Indenture or the Senior Indenture, and the sole remedy to enforce the provisions of the Disclosure Undertaking shall be the right of any Registered Owner, by mandamus, suit, action or proceeding at law or in equity, to compel the Commission to perform the provisions and covenants contained in the Disclosure Undertaking.

The Disclosure Undertaking will terminate (1) upon payment or provision for payment in full of the 2019A Subordinate Bonds, (2) upon repeal or rescission of Section (b)(5) of the Rule or (3) upon a final determination that Section (b)(5) of the Rule is invalid or unenforceable. A copy of the Disclosure Undertaking is on file at the principal office of the Commission.

Approximately 60 separate continuing disclosure undertakings were in effect during the five (5) year period preceding the date of this Official Statement relating to over 100 series and subseries of bonds issued by the Commission. During such five (5) year period, in connection with approximately five (5) of those undertakings (which cover approximately eighteen (18) series and subseries of bonds), the Commission failed to provide (on or before the required deadlines) certain annual disclosure concerning either Act 3 Registration Fee Revenue or Oil Franchise Tax Revenue collected by the Commonwealth for fiscal years ending 2013-2014, as applicable.

Each of the foregoing described disclosures was subsequently filed through EMMA on or about September 30, 2015. Notice of the failure to timely provide such disclosures was filed with the MSRB (via EMMA) on July 22, 2016. None of the foregoing described instances of late filings should be construed as an acknowledgement by the Commission that any such instance was material.

Except as may be otherwise described herein, during the five (5) year period preceding the date of this Official Statement, the Commission has complied in all material respects with all of its continuing disclosure undertakings entered into pursuant to the Rule in connection with its other series of bonds.

RELATIONSHIPS OF CERTAIN PARTIES

PFM Financial Advisors LLC, Financial Advisor, its subsidiary Munite LLC, and its affiliate PFM Asset Management LLC are engaged to provide other services to the Commission.

Stradley Ronon Stevens & Young, LLP, Bond Counsel, has been engaged from time to time, to provide to the Commission certain legal services.

PNC Capital Markets LLC ("PNCCM") may offer to sell to its affiliate, PNC Investments, LLC ("PNCI"), securities in PNCCM's inventory for resale to PNCI's customers, including securities such as those to be offered by the Commission. PNCCM may share with PNCI a portion of the fee or commission paid to PNCCM if any Bonds are sold to customers of PNCI.

UNDERWRITING

Citigroup Global Markets Inc., on behalf of itself and the other Underwriters shown on the cover page hereof (the "**Underwriters**"), is expected to enter into a purchase contract (the "**Purchase Contract**") with the Commission pursuant to which the Underwriters will agree, subject to certain customary conditions precedent to closing, to purchase the 2019A Subordinate Bonds from the Commission at a purchase price equal to $817,392,134.78 (representing the par amount, plus original issue premium of $97,286,214.10, less underwriters' discount of $2,864,079.32).

Pursuant to the Purchase Contract, the Underwriters will be obligated to purchase all of the 2019A Subordinate Bonds if any of such 2019A Subordinate Bonds are purchased. The 2019A Subordinate Bonds may be offered and sold to certain dealers (including the Underwriters and other dealers depositing such 2019A Subordinate Bonds into investment trusts) at prices lower than such public offering prices (and such public offering prices may be changed, from time to time, by the Underwriters) only after a public offering of the 2019A Subordinate Bonds at the initial offering price. The Commission has agreed to be liable to the Underwriters to the extent of all losses, claims, damages and liabilities arising out of incorrect statements or information contained in this Official Statement or material omissions therein, except for information furnished by the Underwriters, and with respect to certain other matters.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the Underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to the Commission and to persons and entities with relationships with the Commission, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the Commission (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the Commission. The Underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

RATINGS

Moody's Investors Service, Inc. ("Moody's"), Fitch Ratings ("Fitch") and Kroll Bond Rating Agency, Inc. ("KBRA") have assigned ratings for the 2019A Subordinate Bonds, of "A3" (stable outlook), "A-" (stable outlook) and "A+" (stable outlook), respectively. Moody's and S&P Global Ratings, a business unit of Standard & Poor's Financial Services LLC, are expected to assign ratings for the Insured Term Bond of "A2" (stable outlook), and "AA" (stable outlook), respectively, based on the issuance of the Insurance Policy at the time of the delivery of the Insured Term Bond.

An explanation of the significance of each of such ratings and outlook may be obtained from the rating agency furnishing the same at the following addresses: Moody's Investors Service, Inc., 7 World Trade Center at 250 Greenwich Street, New York, New York 10007, Kroll Bond Rating Agency, 845 Third Avenue, New York 10022 and Fitch Ratings, 33 Whitehall Street, New York, New York 10004. Certain materials and information not included in this Official Statement may have been furnished to such rating agencies. A rating is not a recommendation to buy, sell or hold securities. There is no assurance that such ratings will continue for any given period of time or that they may not be lowered or withdrawn entirely by the rating agencies, or any of them, if, in their or its judgment, circumstances so warrant. Any such downward change in or withdrawal of such ratings, or any of them, may have an adverse effect on the market price of the 2019A Subordinate Bonds.

Except as provided in the Disclosure Undertaking, neither the Underwriters nor the Commission has undertaken any responsibility to bring to the attention of the holders of the 2019A Subordinate Bonds any proposed or actual change in or withdrawal of any rating or to oppose any proposed change or withdrawal.

LITIGATION

Except as described below, there is no controversy or litigation of any nature now pending or threatened restraining or enjoining the issuance, sale, execution or delivery of the 2019A Subordinate Bonds, or in any way contesting or affecting the validity of the 2019A Subordinate Bonds or any proceedings of the Commission taken with respect to the offer or sale thereof, or the pledge or application of any monies or security provided for the payment of the 2019A Subordinate Bonds, the existence or powers of the Commission or the construction of the Commission's Capital Improvement Program.

The Commission is covered by Act No. 152, approved September 28, 1978, which provides for a limited waiver of sovereign immunity by the Commonwealth. Damages for any loss are limited to $250,000 for each plaintiff or $1,000,000 in the aggregate. Note, however, it is unlikely these protections afforded to the Commission will apply in the Lawsuit (as defined below) to prevent or limit the availability of remedies for the Trucking Plaintiffs (as defined herein).

The Commission is subject to claims for personal injury and/or property damage pending against the Commission pertaining to matters normally incidental to routine operations. Currently, none of such claims, individually or in the aggregate, are deemed to expose the Commission to a material risk of loss.

On March 15, 2018, several individuals, entities and associations involved in or related to the commercial trucking industry (the "Trucking Plaintiffs") filed a class action lawsuit against the Commission, several individuals in their individual capacity and in their official capacity related to the Commission, an individual in her individual capacity and in her official capacity as Chair of the Commission and as Secretary of Transportation, and Governor Wolf, in both his individual and official capacity (the "Defendants"). The litigation is captioned *Owner Operator Independent Drivers Association, Inc. et al. v. Pennsylvania Turnpike Commission et al.*, No. 1:18-cv-00608-SHR (United States District Court for the Middle District of Pennsylvania) (the "Lawsuit"). The Trucking Plaintiffs alleged that Act 44 of 2007, as amended by Act 89 of 2013 (hereinafter, "Act 44/89"), violated the Commerce Clause and the right to travel under the U.S. Constitution, either facially or as applied, because the Commission improperly imposes Turnpike tolls beyond that which is necessary for the operation and maintenance of the System and that the Commission expends toll revenues for purposes other than the operation and maintenance of the System.

The Lawsuit sought, among other things, the following injunctive remedies: (1) a permanent injunction enjoining the Commission from issuing any further bonds or incurring any additional debt for the purpose of making Act 44/89 payments; and (2) a permanent injunction prohibiting the Commission from using toll revenues to make payments on outstanding bonds issued to meet Act 44/89 obligations. Moreover, the Lawsuit seeks certain monetary damages including a refund of a portion of certain tolls allegedly imposed upon the Trucking Plaintiffs'' use of the System in excess of what was reasonably necessary to pay for the cost of operating and maintaining the System, together with any legally applicable interest and other compensation. See APPENDIX A – "THE PENNSYLVANIA TURNPIKE COMMISSION – THE COMMISSION – Recent Development and Pending Litigation – *Commission Litigation*". In the event of a judgment for monetary damages for refund of past tolls against the Commission in federal court in the Lawsuit, various monies or other sources of security of the Commission, including, but not limited to, the monies or sources of security for the payment of the 2019A Subordinate Bonds under the Trust Estate could be subject to execution of a judgment in favor of the Trucking Plaintiffs.

The Commission along with all of the other Defendants have been vigorously defending Act 44/89 and the propriety of the Commission's imposition and use of Turnpike toll revenues in court. All Defendants filed motions to dismiss the complaint. In addition, the Commission had filed an alternative motion for summary judgment. The Commission's motions asserted that Act 44/89, the amount of the Tolls and the use of the Toll revenues violate neither the Commerce Clause nor the Constitutional right to travel. The Commission also asserted that the uses of toll revenues fall within Congressional authorization.

On April 4, 2019, Judge Yvette Kane of the United States District Court for the Middle District of Pennsylvania (the "District Court') issue a decision in which the District Court determined that Tolls assessed by the Commission do not unduly burden interstate commerce or interfere with the constitutional right to travel and the Trucking Plaintiffs'' complaint failed to state a claim upon which relief may be granted for violations of the dormant Commerce Clause or the constitutional right to travel. Accordingly, the District Court granted the Defendants' motion to dismiss the Trucking Plaintiffs' complaint.

By Notice of Appeal filed on April 4, 2019, the Trucking Plaintiffs provided notice of its appeal to the United States Court of Appeals for the Third Circuit of the District Court's decision. On April 18, 2019, the Third Circuit granted a joint motion to expedite the case. The Commission and the other Defendants will continue to vigorously defend Act 44/89 and the propriety of the Commission's imposition and use of the Turnpike Toll revenues in court. No assurance can be given as to the timing of any decision of the court or the effect of such decision on the Commission.

The Commission may be subject to additional litigation or other actions from time to time in the future which cannot be predicted at this time. See "CERTAIN RISK FACTORS – Litigation and Other Actions Against the Commission" and "CERTAIN RISK FACTORS – United States District Court for the Middle District of Pennsylvania" herein.

LEGAL MATTERS

Certain legal matters incident to the issuance of the 2019A Subordinate Bonds and with regard to the tax status of the interest thereon will be passed upon by Stradley Ronon Stevens & Young, LLP, Philadelphia, Pennsylvania, Bond Counsel. A copy of the form of opinion of Bond Counsel which will be delivered with the 2019A Subordinate Bonds is set forth in APPENDIX D − "FORM OF OPINION OF BOND COUNSEL." Certain legal matters will be passed upon for the Underwriters by their Counsel, Saul Ewing Arnstein & Lehr LLP, Philadelphia, Pennsylvania and for the Commission by its Chief

Counsel, Doreen A. McCall, Esquire, and McNees Wallace & Nurick LLC, Lancaster, Pennsylvania, Disclosure Counsel to the Commission.

The various legal opinions to be delivered concurrently with the delivery of the 2019A Subordinate Bonds express the professional judgment of the attorneys rendering the opinion as to the legal issues explicitly addressed therein. In rendering a legal opinion, the attorney does not become an insurer or guarantor of that expression of professional judgment, of the transaction opined upon, or the future performance of the parties to the transaction. In addition, the rendering of an opinion does not guarantee the outcome of any legal dispute that may arise out of the transaction.

TAX MATTERS

Federal Income Tax Treatment of the 2019A Subordinate Bonds

Opinion of Bond Counsel. In the opinion of Stradley Ronon Stevens & Young, LLP, Bond Counsel, interest, including accrued original issue discount ("OID"), on the 2019A Subordinate Bonds (a) is not included in gross income for federal income tax purposes, and (b) is not an item of tax preference for purposes of the federal alternative minimum income tax. Except as discussed below regarding OID, no other opinion is expressed by Bond Counsel regarding the tax consequences of the ownership of or the receipt or accrual of interest on the 2019A Subordinate Bonds.

Bond Counsel's opinion with respect to the 2019A Subordinate Bonds will be given in reliance upon certifications by representatives of the Commission as to certain facts relevant to both the opinion and requirements of the Code. Bond Counsel's opinion is subject to the condition that there is compliance subsequent to the issuance of the 2019A Subordinate Bonds with all requirements of the Code that must be satisfied in order for interest thereon to remain excludable from gross income for federal income tax purposes. The Commission have covenanted to comply with the current provisions of the Code regarding, among other matters, the use, expenditure and investment of the proceeds of the 2019A Subordinate Bonds and the timely payment to the United States of any arbitrage rebate amounts with respect to the 2019A Subordinate Bonds. Failure by the Commission to comply with such covenants, among other things, could cause interest on the 2019A Subordinate Bonds to be included in gross income for federal income tax purposes retroactively to their date of issue.

Original Issue Premium. 2019A Subordinate Bonds purchased, whether upon issuance or otherwise, for an amount (excluding any amount attributable to accrued interest) in excess of their principal amount will be treated for federal income tax purposes as having amortizable bond premium. A holder's basis in such a Series 2012 Bond must be reduced by the amount of premium which accrues while such Series 2012 Bond is held by the holder. No deduction for such amount will be allowed, but it generally will offset interest on the 2019A Subordinate Bonds while so held. Purchasers of such 2019A Subordinate Bonds should consult their own tax advisors as to the calculation, accrual and treatment of amortizable bond premium and the state and local tax consequences of holding such 2019A Subordinate Bonds.

Tax Consequences Generally. In addition to the matters addressed above, prospective purchasers of the 2019A Subordinate Bonds should be aware that the ownership of tax-exempt obligations may result in collateral Federal income tax consequences to certain taxpayers, including without limitation financial institutions, property and casualty insurance companies, S corporations, foreign corporations subject to the branch profits tax, recipients of Social Security or Railroad Retirement benefits and taxpayers who may be deemed to have incurred or continued indebtedness to purchase or carry tax-exempt obligations. Prospective purchasers of the 2019A Subordinate Bonds should consult their tax advisors as to the applicability and impact of such consequences.

Bond Counsel's opinions represent its legal judgment based in part upon the representations and covenants referenced therein and its review of existing law, but are not a guarantee of result or binding on the IRS or the courts. Bond Counsel assumes no duty to update or supplement its opinions to reflect any facts or circumstances that may come to Bond Counsel's attention after the date of its opinions or to reflect any changes in law or the interpretation thereof that may occur or become effective after such date.

The IRS has a program to audit state and local government obligations to determine, as applicable, whether the interest thereon is includible in gross income for federal income tax purposes. If the IRS does audit the 2019A Subordinate Bonds, under current IRS procedures, the IRS will treat the Commission as the taxpayer and the owners of the 2019A Subordinate Bonds will have only limited rights, if any, to participate.

There are many events that could affect the value and liquidity or marketability of the 2019A Subordinate Bonds after their issuance, including but not limited to public knowledge of an audit of the 2019A Subordinate Bonds by the IRS, a general change in interest rates for comparable securities, a change in federal or state income tax rates, legislative or regulatory proposals affecting state and local government securities and changes in judicial interpretation of existing law. In addition, certain tax considerations relevant to owners of 2019A Subordinate Bonds who purchase 2019A Subordinate Bonds after their issuance may be different from those relevant to purchasers upon issuance. Neither the opinions of Bond Counsel nor this Official Statement purports to address the likelihood or effect of any such potential events or such other tax considerations and purchasers of the 2019A Subordinate Bonds should seek advice concerning such matters as they deem prudent in connection with their purchase of 2019A Subordinate Bonds.

Pennsylvania Tax Exemption

In the opinion of Bond Counsel, under the laws of the Commonwealth of Pennsylvania as enacted and construed on the date of original issuance of the 2019A Subordinate Bonds, interest on the 2019A Subordinate Bonds is exempt from Pennsylvania personal income tax and corporate net income tax, and the 2019A Subordinate Bonds are exempt from personal property taxes in Pennsylvania.

The personal income tax regulations promulgated by the Pennsylvania Department of Revenue (Pennsylvania Bulletin, vol. 26, No. 9, March 2, 1996) provide (i) any excess of a publicly offered obligation's stated redemption price at maturity over the first price at which a substantial amount of the obligations included in the issue is sold to the public will be treated as interest; (ii) unstated or imputed interest shall be computed for Pennsylvania personal income tax purposes in the same manner as it is computed for Federal income tax purposes; and (iii) the basis of a Pennsylvania state or local obligations shall be adjusted upward by the amount of unstated or imputed interest that would have been includible in the income of the holder but for the statutory exemption and shall be adjusted downward, but not below zero, by the amount of payments under the obligation, other than payments of stated interest. Prospective purchasers of the 2019A Subordinate Bonds should consult their tax advisors regarding the Pennsylvania treatment of original issue discount.

Regulations, Future Legislation

Under the provisions of the Code, the Treasury Department is authorized and empowered to promulgate regulations implementing the intent of Congress under the Code, which could affect the tax-exemption and/or tax consequences of holding tax-exempt obligations such as the 2019A Subordinate Bonds. In addition, legislation may be introduced and enacted in the future which could change the provisions of the Code relating to tax-exempt bonds of a state, such as the Commonwealth, or the taxability of interest in general. No representation is made or can be made by the Commission, or any other party associated with the issuance of the 2019A Subordinate Bonds as to whether or not any other legislation now or hereafter introduced and enacted will be applied retroactively so as to subject interest on the 2019A Subordinate Bonds to federal income taxes or so as to otherwise affect the marketability or market value of the 2019A Subordinate Bonds.

PROSPECTIVE PURCHASERS OF THE 2019A SUBORDINATE BONDS SHOULD CONSULT THEIR OWN TAX ADVISORS AS TO THE STATUS OF INTEREST ON THE 2019A SUBORDINATE BONDS UNDER THE TAX LAWS OF ANY STATE OTHER THAN THE COMMONWEALTH.

THE ABOVE SUMMARY OF POSSIBLE TAX CONSEQUENCES IS NOT EXHAUSTIVE OR COMPLETE. ALL PURCHASERS OF THE 2019A SUBORDINATE BONDS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE POSSIBLE FEDERAL, STATE AND LOCAL INCOME TAX CONSEQUENCES OF OWNERSHIP OF THE 2019A SUBORDINATE BONDS. ANY STATEMENTS REGARDING TAX MATTERS HEREIN CANNOT BE RELIED UPON BY ANY PERSON TO AVOID TAX PENALTIES.

FINANCIAL ADVISOR

The Commission has retained PFM Financial Advisors LLC, Philadelphia, Pennsylvania, as Financial Advisor with respect to the authorization and issuance of the 2019A Subordinate Bonds. The Financial Advisor is not obligated to undertake or assume responsibility for, nor have they undertaken or assumed responsibility for, an independent verification of the accuracy, completeness or fairness of the information contained in this Official Statement. The Financial Advisor is an independent advisory firm and is not engaged in the business of underwriting, trading, or distributing municipal securities or other public securities.

TRUSTEE AND PAYING AGENT

Wells Fargo Bank, N.A. (the "**Bank**"), Philadelphia, Pennsylvania, is the Trustee and Paying Agent under the Subordinate Indenture, the obligations and duties of which are as described in the Subordinate Indenture. The Bank has not evaluated the risks, benefits or propriety of any investment in the 2019A Subordinate Bonds, makes no representation, and has reached no conclusions, regarding the validity of the 2019A Subordinate Bonds, the investment quality of the 2019A Subordinate Bonds, the security therefor, the adequacy of the provisions for payment thereof or the tax-exempt status, as applicable, of the interest on the 2019A Subordinate Bonds, about all of which the Bank expresses no opinion and expressly disclaims the expertise to evaluate. The Bank has relied upon the opinion of Bond Counsel for the validity of the 2019A Subordinate Bonds and status of the interest on the 2019A Subordinate Bonds as well as other matters set out in that opinion. Furthermore, the Bank has no oversight responsibility, and is not accountable, for the use or application by the Commission of any of the 2019A Subordinate Bonds authenticated or delivered pursuant to the Subordinate Indenture or for the use or application of the proceeds of such 2019A Subordinate Bonds by the Commission.

Under the terms of the Subordinate Indenture, the Trustee is not responsible for any loss or damage resulting from any action or inaction taken in good faith in reliance upon an opinion of counsel and the Trustee is liable only for those damages caused by its gross negligence or willful misconduct.

Under the Subordinate Indenture, the Trustee is not required to take notice, and is not deemed to have notice, of any default under the Subordinate Indenture (except with respect to failure to make debt service payments), unless a Responsible Officer of the Trustee has actual notice thereof or has been specifically notified in writing of such default by the owners of at least 25% in aggregate principal amount of the Outstanding Subordinate Indenture Bonds of any Class (as defined in APPENDIX C). All notices or other instruments required by the Subordinate Indenture to be delivered to the Trustee must be delivered at the designated office of the Trustee. In the absence of any such notice, the Trustee may conclusively assume no Event of Default under the Subordinate Indenture exists, except as expressly stated in the Subordinate Indenture. The summary of the Trustee's rights, duties, obligations and immunities is not intended to be a complete summary and reference must be made to the Subordinate Indenture for a complete statement of the Trustee's rights, duties, obligations and immunities.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

MISCELLANEOUS

The financial data and other information contained herein have been obtained from the Commission's records, audited financial statements and other sources which are believed to be reliable. However, no guarantee is given that any of the assumptions, forecasts or estimates contained herein will be realized.

The references herein to the Enabling Acts, the 2019A Subordinate Bonds, the Subordinate Indenture, the Disclosure Undertaking, and the Senior Indenture are brief summaries of certain provisions thereof. Such summaries do not purport to be complete and, accordingly, are qualified by reference and are subject to the full texts thereof.

Neither this Official Statement nor any other disclosure in connection with the 2019A Subordinate Bonds is to be construed as a contract with the holders of the 2019A Subordinate Bonds. Any statement made in this Official Statement involving matters of opinion or estimates, whether or not expressly so identified, is intended merely as such and not as representations of fact. No representation is made that any of such statements will be realized.

The execution and delivery of this Official Statement by its Chief Financial Officer have been duly authorized by the Commission.

PENNSYLVANIA TURNPIKE COMMISSION

By: /s/ Nikolaus H. Grieshaber
Nikolaus H. Grieshaber
Chief Financial Officer

[THIS PAGE INTENTIONALLY LEFT BLANK]

APPENDIX A

THE PENNSYLVANIA TURNPIKE COMMISSION

TABLE OF CONTENTS

APPENDIX A[1,2]

THE PENNSYLVANIA TURNPIKE COMMISSION

THE COMMISSION

General

The Commission is an instrumentality of the Commonwealth existing pursuant to an Act of the General Assembly of Pennsylvania approved on July 18, 2007, P. L. 169, No. 44 ("***Act 44***") and various Acts of the General Assembly approved on several dates, including the Act of May 21, 1937, P.L. 774, Act 211; the Act of May 24, 1945, P.L. 972; the Act of February 26, 1947, P.L. 17; the Act of May 23, 1951, P.L. 335; the Act of August 14, 1951, P.L. 1232; the Act of September 30, 1985, P.L. 240, No. 61 ("***Act 61***") to the extent not repealed by Act 44; the Act of August 5, 1991, P.L. 238, No. 26 ("***Act 26***") and the Act of November 25, 2013, P.L. 974, No. 89 ("***Act 89***") (collectively, the "***Enabling Acts***").

Pursuant to the Enabling Acts, the Commission has the power to construct, operate and maintain the Pennsylvania Turnpike System (as further described herein, the "***System***" or the "***Turnpike System***"). The Commission's composition, powers, duties, functions, duration and all other attributes are derived from the Enabling Acts. The Enabling Acts may be modified, suspended, extended or terminated at any time by further legislation.

The Commission is composed of five members, including one ex officio member, the Secretary of the Department of Transportation of the Commonwealth of Pennsylvania ("***PennDOT***"). Any vacancy in the membership of the Commission (other than the Secretary of Transportation) must be filled by appointment of the Governor, with the advice and consent of two-thirds of the members of the Pennsylvania Senate. Act 89 enacted additional provisions pertaining to membership of the Commission. The term of confirmed members of the Commission (other than the Secretary of Transportation) is a period of four years and members may serve a maximum of two terms. Upon the expiration of a term, a member may continue to hold the office of Commissioner for a period of 90 days or until their successor is appointed and qualified, whichever is less. The limitations on Commissioner terms under Act 89 do not apply to members of the Commission originally confirmed prior to Act 89's effective date.

The present members of the Commission and the expiration dates of their respective terms (which, in the case of all of the members of the Commission except Commissioner Drew and Commissioner Wozniak, would be extended until reappointment or until a successor is appointed and confirmed) are as follows:

---

1 Capitalized terms used in this Appendix A and not otherwise defined have the meanings ascribed in the forepart of this Official Statement or in Appendix C of this Official Statement.

2 Included in this Appendix A are links to certain additional materials. Unless otherwise noted herein, this Appendix A includes by reference the information contained in the linked materials, but only as such information appears on the linked websites as of the date of this Official Statement. The inclusion of these links is not intended to be a republication herein of any information contained on such websites.

Leslie S. Richards, Chair was nominated by Governor Tom Wolf as Acting Secretary of Transportation of the Commonwealth of Pennsylvania in January 2015 and was confirmed as Secretary of Transportation by the Senate on May 11, 2015. She is the first female chair of the Commission. As the first woman and planner to serve as Secretary of the Pennsylvania Department of Transportation, Secretary Richards oversees one of the largest transportation agencies in the U.S., with an annual budget of more than $10 billion and 11,500 employees.

Secretary Richards has started a number of new initiatives including the Transportation Investment Plan, a metric driven strategic investment approach for the 12 Year Capital Program; a $2.1 billion maintenance and system preservation initiative, termed PennDOT Road MaP; and PennDOT Connects, a transformative approach that focuses on improved collaboration among local stakeholders for the planning and delivery of capital and maintenance projects.

Secretary Richards has been recognized for her leadership in the industry and her commitment to public service. Secretary Richards was appointed the first female chair of the Public Private Partnership (P3) Board. She received two Gold Stevie Awards (Female Innovator of the Year and Female Executive of the Year). Other honors include the WTS International Woman of the Year Award for 2018, as well as the Conference of Minority Transportation Officials' (COMTO) 2018 Celebrating Women Who Move the Nation award, the Philadelphia Business Journal 2017 Women of Distinction award, City and State PA's 2018 Above and Beyond Distinguished Service award, and the March of Dimes of Southeastern Pennsylvania Service to Humanity award.

Secretary Richards takes time to speak about the importance of women occupying roles in public service and transportation. In 2017, Secretary Richards and First Lady Frances Wolf launched the Moving Women Forward tour, a series of town hall style events held at institutions of higher learning across Pennsylvania. These gatherings encourage more young women and minorities to pursue careers and leadership positions in these fields.

In addition, she led the development of a program that trains PennDOT employees to recognize the signs of human trafficking. PennDOT is one of the first state transportation agencies in the nation to implement this type of training to recognize and report potential trafficking situations.

Her career includes work in both the private and public sectors, including as a local government official. She served as the vice chair of the Montgomery County Board of Commissioners, where she led the transportation and planning initiatives for the third-largest county in the Commonwealth. Prior to becoming Secretary she worked as a senior project manager for environmental and civil engineering firms. In addition, Secretary Richards served as the chair of the Delaware Valley Regional Planning Commission, as well as on the boards of the Southeastern Pennsylvania Transportation Authority (SEPTA) and the Greater Valley Forge Transportation Management Association (GVFTMA). Before being elected commissioner, she served as the chair and vice chair of the Whitemarsh Township Board of Supervisors.

Secretary Richards is a graduate of Brown University, where she concentrated in economics and urban studies. She received a master's of regional planning from the University of Pennsylvania.

William K. Lieberman is the current Vice Chair of the Commission, and he was appointed to serve as a Commissioner in July 2010. Mr. Lieberman previously served as Chair of the Commission from January 2011 until January 2015. Mr. Lieberman has been President of The Lieberman Companies, an insurance and pension provider, since 2003. He serves on the board of AMPCO Pittsburgh. A graduate of The Pennsylvania State University, he is a University of Pittsburgh Trustee and former Chair of the Manchester-Bidwell Corp., Pittsburgh, Pennsylvania. He was reappointed to serve as a Commissioner in January 2015. Mr. Lieberman received a unanimous recommendation for confirmation by the Senate Transportation Committee in April 2015 and was confirmed in May 2015 by the Senate. His term expired in May 2019; however, under the provisions of Act 89, Mr. Lieberman continues to serve as a Commissioner and as Vice Chair of the Commission.

Barry Drew, Secretary/Treasurer, was nominated in September 2015 by Governor Tom Wolf and confirmed by the State Senate in December 2015 to serve as a Commissioner. Mr. Drew previously served as the Deputy Secretary of Administration at the Pennsylvania Department of Revenue from 1995 until 2011. Prior to that, he was Solicitor for the City of Erie, Pennsylvania, then Director of Administration for the County of Erie. Mr. Drew is a Vietnam War veteran who served as a Sergeant in the United States Air Force. He holds a Bachelor of Science in Accounting from Gannon University and a Juris Doctor from the Western New England College School of Law. His term expires in December 2019.

Pasquale T. Deon, Sr., an established businessman has served as a member of the Commission since 2002. Mr. Deon is Chair of the Board of Directors of the Southeastern Pennsylvania Transportation Authority (SEPTA). He is also a service-industry entrepreneur involved in real-estate development, beverage distribution and construction services. He is the owner of WBCB-1490AM Radio, Levittown, Pennsylvania. Commissioner Deon was re-nominated to serve as a Commissioner by Governor Wolf and his re-nomination to serve another four-year term as a Commissioner was unanimously confirmed by the Senate in May 2018. His term expires in May 2022.

John N. Wozniak was nominated by Governor Tom Wolf on March 30, 2017 and confirmed by the State Senate on July 8, 2017 to serve as a Commissioner. Mr. Wozniak served as a Pennsylvania State Senator from the 35th District from 1997 to 2016. Prior to that, he served as a member of the Pennsylvania House of Representatives from the 71st District from 1981 to 1996. Mr. Wozniak graduated from the University of Pittsburgh at Johnstown in 1978 with a B.A. in Economics. His term expires in July 2021.

Executive Personnel

Mark P. Compton assumed the position of Chief Executive Officer of the Commission on February 1, 2013. Mr. Compton previously served as Deputy Secretary of Administration of PennDOT, overseeing eight bureaus within the agency, including: human resources, information systems governance, business solutions and services, infrastructure and operations, and fiscal management. Before joining PennDOT, Mr. Compton served as Director of Government Affairs for all four companies of American Infrastructure, a heavy-duty civil construction company headquartered in Worcester, Pennsylvania. Prior to that, he worked in various public and private operations, focusing largely on transportation, construction and economic development.

Craig R. Shuey is the Chief Operating Officer of the Commission. He joined the Commission in August 2009 as Director of Government Affairs and was named Chief Operating Officer in January 2011. Mr. Shuey served as Acting Chief Executive Officer from October 2012 to February 2013. Prior to joining the Commission, Mr. Shuey was executive director of the Pennsylvania Senate Transportation Committee from 2001 to 2009. He also served as a representative on the Senate Transportation Commission and on various advisory committees in areas such as air, rail, freight movement and safety.

Nikolaus H. Grieshaber was named Chief Financial Officer in June 2008. Prior to that, he held positions of Director of Treasury Management and Treasury Manager with the Commission. Before joining the Commission in 2000, he was a finance manager and portfolio manager for ADP Capital Management, assistant treasurer for BTR Dunlop Finance, cash manager for Silo, Inc. and investment analyst for American Life Insurance Company.

Bradley J. Heigel, P.E., was named Chief Engineer in April 2012. He was previously employed by the Commission from 1990 to 2010 and served as the Total Reconstruction Program Manager from 2000 to 2010. From 2010 to 2012, he was employed as a Vice President with Michael Baker, Jr., Inc., an engineering unit of Michael Baker Corporation.

Doreen A. McCall, *Esq.*, has been the Chief Counsel since July 2005. Prior to that time, she served as Chief Counsel to the Pennsylvania Historical and Museum Commission from February 2003 to July 2005 and as Deputy General Counsel in the Governor's Office of General Counsel from April 2000 to January 2003. From September 1996 to April 2000, she was an Assistant General Counsel and from November 1993 to August 1996, she was a staff attorney in the Office of Inspector General.

Ray A. Morrow was named the Chief Compliance Officer in July 2014. Prior to being named the Chief Compliance Officer, Mr. Morrow served the Commission as its Acting Chief Compliance Officer and Inspector General. Mr. Morrow joined the Commission in January 2014. Prior to joining the Commission, Mr. Morrow had an extensive career with the Federal Bureau of Investigation (FBI) first from 1977 to 1978. From 1978 to 1980, Mr. Morrow served with the U.S. Secret Service Uniformed Division assigned to the White House and the Presidential Protective Detail. From 1980 to 1987, Mr. Morrow served as an Executive Protection Specialist for Allegheny International ("AI"), a Fortune 500 company, assigned to protect the President of AI. Then, from 1987 to 2007, Mr. Morrow once again joined the FBI as a Special Agent culminating his career as the Special Agent in Charge of the FBI's Pittsburgh Field Office. Mr. Morrow served as a Senior Compliance Investigator for the Siemens Corporation from 2010-2013.

Enabling Acts

Act 44 and the Act 44 Funding Agreement

On July 18, 2007, Act 44 was enacted, creating a "public-public partnership" between the Commission and PennDOT to provide funding for roads, bridges and transit throughout the Commonwealth. Subsequently, in order to, among other things, effectuate the provisions of Act 44 requiring the Commission to make substantial annual payments to PennDOT as described below, the Commission and PennDOT entered into a Lease and Funding Agreement (the "***Act 44 Funding Agreement***"), incorporating many of the terms of Act 44.

The Act 44 Funding Agreement also granted the Commission the option to lease the portion of Interstate I-80 ("***I-80***") located in the Commonwealth from PennDOT upon, among other things, the approval of the Federal Highway Administration ("***FHWA***") of the conversion of such portion into a toll road (the "***Conversion***"). The Conversion was not approved by FHWA and neither the Commission nor PennDOT appealed the decision. The Commission did not exercise its option to lease such portion of I-80, and the period during which the Commission could exercise its option under the Act 44 Funding Agreement lapsed on October 14, 2010 without the Commission effectuating Conversion or having the ability to do so in the future. Under existing law, including Act 89, all legal, financial and operational responsibility for I-80 remains with PennDOT.

Pursuant to Act 44 and the Act 44 Funding Agreement, because the Conversion did not occur, the Commission was obligated to make scheduled annual payments of $450 million to PennDOT through 2057, payable in equal quarterly installments, with $200 million of the scheduled annual payment supporting road and bridge projects and $250 million supporting transit projects throughout the Commonwealth. But see "*Act 89 and Act 89 Amendment*" below as to subsequent changes to such annual payments.

Act 89 and the Act 89 Amendment

On November 25, 2013, Act 89 was enacted to provide substantial additional and sustained investment in the Commonwealth's aging transportation infrastructure. Fully implemented as of Fiscal Year 2018, the revenue enhancements enacted in Act 89 are generating substantial additional funds each year for investment in the Commonwealth's transportation infrastructure.

Act 89 also enacted substantial revisions to the Commission's transportation funding obligations under Act 44 and authorized the Commission and PennDOT to immediately amend the Act 44 Funding Agreement to reflect the statutory provisions of Act 89. On April 4, 2014 the Commission and PennDOT executed Amendment Number One to Lease and Funding Agreement (the "***Act 89 Amendment***". and together with the Act 44 Funding Agreement, the "***Original Amended Funding Agreement***").

In accordance with Act 89 and the Original Amended Funding Agreement, the Commission's aggregate annual payment to PennDOT for Fiscal Year 2013-2014 through Fiscal Year 2021-2022 is $450 million and, in accordance with Act 89, the Commission must pay at least $30 million of such annual amount from current revenues with the remainder expected to be funded by bonds issued under the Subordinate Indenture (hereinafter defined). Since 2017 and continuing through 2022, by policy the Commission has been providing and anticipates it will continue to provide $50 million from current revenues to fund a portion of its annual payment to PennDOT.

On July 31, 2018, the Commission and PennDOT executed Amendment Number Two to Lease and Funding Agreement (the "***Amendment,***" and together with the Original Amended Funding Agreement, the "***Amended Funding Agreement***"). Pursuant to the terms of the Amendment, the Commission and PennDOT agreed to extend the due date for the Commission's July 31, 2018 Annual Base Payment of $50,000,000 and Annual Additional Payment of $62,500,000 to October 31, 2018 or such later date in fiscal year ending June 30, 2019 as may be agreed to by the Commission and PennDOT. Further, the Commission and PennDOT agreed that the due date for any subsequent Annual Base Payment and Annual Additional Payment in the fiscal year ending June 30, 2019 may also be extended to any later date, not later than June 30, 2019, as may be agreed to by the Commission and PennDOT. By letter agreement from the Commission to PennDOT dated April 22, 2019, PennDOT confirmed and acknowledged that the due date for the Commission's July 31, 2018, October 31, 2018, January 31, 2019 and April 30, 2019 Annual Base Payments and Annual Additional Payments is extended to June 28, 2019 or such later date, not later than June 30, 2019, as the parties may mutually agree.

Commencing in Fiscal Year 2022-2023 through the term of the Amended Funding Agreement, the Commission's aggregate annual payment to PennDOT is $50 million, which amount shall be paid from then current revenues of the Commission. Act 89 relieves the Commission from over $15 billion in future transfers to PennDOT during Fiscal Years 2023 through 2057. Further, Act 89 revises the use of the Commission's scheduled annual payments. Effective on July 1, 2014, none of the Commission's scheduled annual payments may be used to support Commonwealth road and bridge projects. Instead, $420 million of the scheduled annual payment may be used to support mass transit capital and operating needs and other transportation programs of statewide significance, and $30 million shall be used to support multi-modal projects, which may include: aviation projects; rail freight projects; port projects; bicycle projects and pedestrian projects. The Commission's $50 million scheduled annual payment, which commences in Fiscal Year 2022-2023, will support mass transit capital and operating needs. The table under "*Act 44 Payments to PennDOT for Roads, Bridges and Transit*" below indicates the amounts that have been paid to date by the Commission. The Commission's obligation to pay the annual debt service on any Special Revenue Bonds (hereinafter defined) on a timely basis continues to be part of its payment obligation under the Amended Funding Agreement.

The Amended Funding Agreement terminates on October 14, 2057.

The Enabling Acts provide that if the Secretary of the Budget notifies the Commission of a failure to make a payment to PennDOT under the Amended Funding Agreement, all actions of the Commission taken by a vote of the Commissioners thereafter must be approved by a unanimous vote of all Commissioners until such time as the payment is made. However, a unanimous vote is not required if it would prevent the Commission from complying with covenants with "current bondholders, debt holders or creditors." These voting procedures have never been used as the Commission has not missed any payments under the Amended Funding Agreement.

The Commission is required by the terms of the Amended Funding Agreement and Act 44 to fix and adjust tolls at levels that will generate revenues (together with other available moneys) sufficient to pay, among other things, amounts to PennDOT pursuant to the Amended Funding Agreement when due and other obligations of the Commission, and the Commission has covenanted in the Subordinate Indenture to set tolls at a level sufficient to meet its coverage obligations taking into account any additional debt incurred in order to make such payments.

The Commission believes that System revenues should enable it to satisfy its payment obligations as set forth in the Amended Funding Agreement; however, as a result of the Lawsuit, no assurance can be given. See "THE COMMISSION - Recent Developments and Pending Legislation – *Commission Litigation"* herein.

Act 44 Payments to PennDOT for Roads, Bridges and Transit

The Enabling Acts provide that all required payments under the Amended Funding Agreement or as required by the Enabling Acts shall be subordinate obligations of the Commission payable solely from the General Reserve Fund after meeting all other Commission requirements pursuant to any financial documents, financial covenants, liquidity policies or agreements in effect at the Commission. Pursuant to Act 44 and the Act 44 Funding Agreement, the Commission's payments to PennDOT over the seven Fiscal Years ended May 31, 2014 were allocated between deposits to the Commonwealth Motor License Fund (the "***Motor License Fund***") for road and bridge work and deposits into the Public Transportation Trust Fund for distribution to Pennsylvania's local and regional public transportation agencies for operating and capital purposes.

No portion of the payments of the Commission to be deposited into the Public Transportation Trust Fund may be made with proceeds of Special Revenue Bonds. In accordance with Act 89 and the Amended Funding Agreement, effective July 1, 2014, 100 percent of the scheduled annual payments of the Commission to PennDOT is being deposited into the Public Transportation Trust Fund and may be used to support transit operating and capital costs, multi-modal transportation capital project costs and alternative energy transportation capital project costs.

[Remainder of Page Intentionally Left Blank]

As of the date of this Official Statement, the Commission has paid a total amount of $6,100,000,000 under the Amended Funding Agreement, as set forth in the following table (dollar amounts in millions).

Fiscal Year Ended May 31	Payments to Motor License Fund	Payments to Public Transportation Trust Fund	Total
2008	$450.0	$300.0	$750.0
2009	500.0	350.0	850.0
2010	500.0	400.0	900.0
2011	200.0	250.0	450.0
2012	200.0	250.0	450.0
2013	200.0	250.0	450.0
2014	200.0	250.0	450.0
2015	0.0	450.0	450.0
2016	0.0	450.0	450.0
2017	0.0	450.0	450.0
2018	0.0	450.0	450.0

Issuance of Bonds; Commission Payments

Under the Enabling Acts, the Commission is authorized and empowered, among other things, to issue turnpike revenue bonds, notes or other obligations (either senior on a parity basis or subordinate) to pay (i) pursuant to the Amended Funding Agreement, if applicable, the costs of construction, reconstructing, widening, expanding or extending I-80 or any other costs of I-80 and the System, (ii) certain amounts to PennDOT pursuant to the Amended Funding Agreement for purposes of funding PennDOT highway, road and bridge construction and maintenance programs in the Commonwealth (provided that, commencing in Fiscal Year 2014-2015, all payments to PennDOT under the Amended Funding Agreement will be deposited into the Public Transportation Trust Fund), (iii) costs of improvements to the System, and (iv) certain amounts into a Public Transportation Trust Fund pursuant to the Amended Funding Agreement, to be used for mass transit programs, multi-modal transportation programs and, other transportation programs of statewide significance, alternative energy transportation programs (provided that, pursuant to the terms of the Amended Funding Agreement, the proceeds of any Special Revenue Bonds may not be applied for payments to mass transit programs, multi-modal transportation programs or alternative energy transportation programs).

The bonds authorized to be issued by the Commission under Act 44 include up to $5 billion of Special Revenue Bonds, as described below. Proceeds of such bonds may be applied toward the satisfaction of the Commission's scheduled annual payment obligations under the Amended Funding Agreement and the Enabling Acts, except for that portion of the annual payment obligations to be deposited in the Public Transportation Trust Fund pursuant to the terms of the Amended Funding Agreement. Since all of the Commission's payments to PennDOT under the Amended Funding Agreement are being deposited into the Public Transportation Trust Fund commencing July 1, 2014, as of such date, the Commission is no longer issuing Special Revenue

Bonds to fund its obligations under the Amended Funding Agreement. See "*Statutory Limitations on the Incurrence of Special Revenue Bonds*" below. The Amended Funding Agreement provides that the Commission is obligated to pay all debt service due with respect to the Special Revenue Bonds.

Pursuant to the terms of the Subordinate Indenture, the Commission has covenanted to pay to the Subordinate Indenture Trustee, and it has instructed U.S. Bank National Association, as trustee (the "***Senior Indenture Trustee***") under that certain Amended and Restated Trust Indenture originally dated as of July 1, 1986 and Amended and Restated as of March 1, 2001, between the Commission and the Senior Indenture Trustee, as supplemented and amended (the "***Senior Indenture***") to pay to the Subordinate Indenture Trustee, after payment of all required debt service on all Senior Indenture Obligations (defined below) and subject to the provisions of the Senior Indenture, out of the General Reserve Fund established under the Senior Indenture, such amounts as are required by the Subordinate Indenture, by a supplemental indenture to the Subordinate Indenture or by a parity swap agreement to pay, at the times specified, all amounts due in respect of the Subordinate Indenture Obligations (defined below) outstanding under the Subordinate Indenture or under a parity swap agreement.

Accordingly, the Commission is required to instruct and furnish a debt service schedule to the Senior Indenture Trustee providing (i) for the payment to the Subordinate Indenture Trustee out of available funds held in the General Reserve Fund of the amount from time to time necessary to satisfy all required deposits under the Subordinate Indenture to the Commission Payments Fund established under the Subordinate Indenture and (ii) for the payment of debt service on the outstanding Subordinate Indenture Obligations and all other payments required from time to time under the Subordinate Indenture and in any supplemental indenture to the Subordinate Indenture (collectively, the "***Commission Payments***").

Under the Subordinate Indenture, the Commission may, from time to time, issue additional bonds to satisfy its payment obligations under the Enabling Acts, including (a) bonds issued for the purpose of making payments to PennDOT to finance transit programs and other purposes pursuant to Act 44, as amended by Act 89, and which are not secured by payments from the Motor License Fund, but have a senior claim on Commission Payments (the "***Subordinate Revenue Bonds***") and (b) Special Revenue Bonds (hereinafter defined). The Commission intends that any long-term indebtedness to be issued under the Subordinate Indenture is to be paid solely from Commission Payments. Such obligations (which includes the 2019A Subordinate Bonds), if issued, are subordinate to the Turnpike Revenue Bonds (the "***Turnpike Revenue Bonds***") issued under the Senior Indenture. Such Subordinate Revenue Bonds will be parity obligations with the outstanding Subordinate Revenue Bonds already issued under the Subordinate Indenture. Upon the issuance of the 2019A Subordinate Bonds, the Commission will have $ 5,721,915,089.90 aggregate principal amount of Subordinate Revenue Bonds outstanding under the Subordinate Indenture (including compounded amounts as of June 1, 2019 for outstanding capital appreciation bonds). The foregoing amount includes $291,850,000 aggregate principal amount of floating rate notes (FRNs) constituting a direct purchase obligation. See "CERTAIN FINANCIAL INFORMATION – Direct Purchase Obligations" for a summary of direct purchase obligations of the Commission. Other obligations incurred and outstanding under the Subordinate Indenture include the Commission's obligations under various interest rate swap agreements having a total current notional amount of $291,850,000. Special Revenue Bonds have a right to payment from

Commission Payments that is subordinate to the rights of payment of the holders of Subordinate Revenue Bonds issued under the Subordinate Indenture. APPENDIX F sets forth the existing debt service schedule for the Turnpike Revenue Bonds issued under the Senior Indenture and for the Subordinate Revenue Bonds issued under the Subordinate Indenture.

Statutory Limitations on the Incurrence of Special Revenue Bonds

Under the Enabling Acts, the Commission is authorized to issue, by resolution, Special Revenue Bonds (as defined in § 9511.2 of Act 44, and as issued as such under the Subordinate Indenture, the "***Special Revenue Bonds***") up to an aggregate principal amount of $5 billion, exclusive of original issue discount, for the purpose of paying bond related expenses and costs of PennDOT, including the costs of highway, road, tunnel and bridge construction, renovation and expansion, including acquisition of land, rights, machinery and equipment and certain finance charges relating thereto, planning, engineering, administrative and other expenses, and debt service. No more than $600 million in aggregate principal amount of such Special Revenue Bonds, exclusive of original issue discount, may be issued in any calendar year. No such bonds may be issued unless the Amended Funding Agreement is in effect, and no such bonds may be outstanding beyond the stated term of the Amended Funding Agreement at the time of issuance. Special Revenue Refunding Bonds (as defined in § 9511.9 of Act 44) shall not be deemed to count against the total or annual maximum issuance volume under Act 44. Pursuant to Act 89, Special Revenue Bonds may not be issued by the Commission to fund any portion of its annual payment obligation commencing July 1, 2014, as all of such annual payment obligation is to be deposited in the Public Transportation Trust Fund after such date, although Special Revenue Refunding Bonds could be issued.

Special Revenue Bonds have been issued under the Subordinate Indenture. As of the date of this Official Statement, there is $984,651,226.10 aggregate principal amount of Special Revenue Bonds outstanding under the Subordinate Indenture (including compounded amounts as of June 1, 2019 for capital appreciation bonds).

Should the Commission fail to timely make required debt service deposits for Special Revenue Bonds, the Subordinate Indenture Trustee shall proceed under the terms of Act 44 and a Memorandum of Agreement between PennDOT, the Office of the Budget of the Commonwealth and the Pennsylvania State Treasurer, dated July 16, 2010 (the "***MOA***"), to notify PennDOT of such default, and thereafter, PennDOT shall give notice to the Office of the Budget of the Commonwealth of such deficiency, the Office of the Budget of the Commonwealth shall request that the Treasurer of the Commonwealth transfer funds to the Subordinate Indenture Trustee in an amount necessary to cure such deficiency, and the Treasurer of the Commonwealth shall transfer such funds to the Subordinate Indenture Trustee but only from amounts available for such purpose in the Motor License Fund. The appropriation of money in the Commonwealth's Motor License Fund in respect of Special Revenue Bonds issued by the Commission under Act 44 is continuing and non-lapsing. The Commonwealth has no obligation to appropriate any funds, other than available funds on deposit in the Motor License Fund, for the payment of any such Special Revenue Bonds. Pursuant to the MOA, certain funds equal to the maximum annual debt service on outstanding Special Revenue Bonds are to be set aside (but not pledged) in the Motor License Fund for this purpose upon the issuance of Special Revenue Bonds. Funds in such amounts were set aside in the Motor License Fund in connection with the issuance of the Commission's Motor

License Fund-Enhanced Turnpike Subordinate Special Revenue Bonds, Series A of 2010, Series B of 2010, Series A of 2011, Series B of 2011, Series A of 2012, Series B of 2012, Series A of 2013, Series B of 2013, Series A of 2014, First Series of 2016, First Series of 2017, Second Series of 2017 and Third Series of 2017. The Commission is obligated pursuant to the Amended Funding Agreement to reimburse the Treasurer of the Commonwealth for any amounts withdrawn from the Motor License Fund in order to cure a default in the payment by the Commission with respect to the annual debt service on any such Special Revenue Bonds. This reimbursement obligation is subject to and junior to the payment obligations of the Commission under the Special Revenue Bonds.

Rules Relating to Governance and Accountability Under the Enabling Acts

The Enabling Acts sets forth certain rules relating to governance and accountability of the Commission, including, but not limited to: requiring the Commission to file an annual financial plan with the Pennsylvania Secretary of the Budget no later than June 1 of each year; to have an audit of the Commission's finances (including a review of its performance, procedures, operating budget, capital budget and debt) conducted by the Auditor General every two years (such audit to be paid for by the Commission); to adopt a comprehensive code of conduct for Commissioners and executive-level employees, which the Commission adopted on October 31, 2007 and further expanded and strengthened on January 7, 2014 and January 28, 2015; and upon request, at least one Commission member shall testify annually before the appropriations committee of the Pennsylvania House of Representatives and the Senate of Pennsylvania.

On May 17, 2019, the Commission submitted its financial plan for Fiscal Year 2020 (the "***Financial Plan***"). The Financial Plan incorporates the Commission's adopted Ten-Year Capital Plan (the "***Capital Plan***"). The Financial Plan indicates that in Fiscal Year 2019 the Commission was able to meet all of its financial covenants and obligations under the Enabling Acts and was able to progress with its Capital Plan. Given the ongoing and moderate recovery of both the national and state economies, the Commission plans to continue the cost containment and efficiency measures it implemented within the past few years. These measures, together with future toll increases, are expected to allow the Commission to meet its financial covenants, obligations under the Enabling Acts, and capital needs during Fiscal Year 2020; however, as a result of the Lawsuit, no assurance can be given. See "THE COMMISSION – Recent Developments and Pending Legislation – *Commission Litigation*" herein.

The Financial Plan for Fiscal Year 2020 includes modestly higher estimated toll revenue and traffic, based on CDM Smith's 2018 Traffic and Revenue Forecast together with a bring-down letter dated April 2019, than what was included in the prior year's Financial Plan. Fiscal Year 2020 operating expenses are projected to increase by 3.96% ($16.5 million) to $432.0 million. The Financial Plan assumes the Commission will continue to achieve the PTC's financial planning goal of 4% annual growth in operating expenses. Where possible, the Commission is actively managing its operations to limit the rate of growth in those operating costs directly under its control. However, significant portions of the Commission's operating budget are beyond its ability to control. These external cost drivers include the Commission's pension expense related to the State Employees Retirement System ("SERS") and the Commission's projected expense for the Pennsylvania State Police. With respect to specific operating expenses that are under the control of the Commission, such costs are projected to increase 2.9% ($8.9 million) in Fiscal Year 2020 while the Commission's pension expense related to SERS is estimated to increase 8.4% ($4.6 million) and the Commission's projected expense for the Pennsylvania State Police is estimated to increase 5.7% ($3.04 million). The Financial Plan also continues to include more conservative debt structuring assumptions, first included in the Fiscal Year 2017 Financial Plan, to reduce the Commission's interest costs. These include assuming 30-year terms versus 40-year terms to amortize principal more quickly, eliminating the planned use of capital appreciation bonds and other deferred interest products in the future, and assuming a portion of future debt issuances are based on level debt service assumptions rather than on escalating debt service. Finally, the Financial Plan maintains debt service coverage ratios for all toll revenue supported debt above policy level constraints.

The Financial Plan concludes that the Commission will continue to meet all of its indenture covenants and all of its other obligations through the Fiscal Year 2057. However, as a forward-looking report, the Financial Plan makes certain assumptions, including future toll increases, to reach its conclusion that the financial covenants, obligations under the Enabling Acts, and capital needs will be met beyond Fiscal Year 2019. Key among these assumptions is the Commission's ability to raise all tolls throughout the System. The Financial Plan reflects the full year effects of the January 2019 toll increase and the partial year impacts of the January 2020 toll increase. The Financial Plan assumes the $450 million reduced level of funding obligations required by the Enabling Acts through Fiscal Year 2022 and the $50 million funding level from Fiscal 2023 through Fiscal Year 2057. No assurances can be made by the Commission with respect to the assumptions made or conclusions reached in the Financial Plan. A complete copy of the Financial Plan is available on the Commission's website at https://www.paturnpike.com/pdfs/business/finance/PTC_Fiscal_2020_Act_44_Financial_Plan_FINAL.pdf.[3] See "THE COMMISSION – Enabling Acts" above.

See "CAPITAL IMPROVEMENTS – Ten-Year Capital Plan" for additional information on the Capital Plan.

For information on the most recent performance audit by the Auditor General, see "CERTAIN FINANCIAL INFORMATION – Performance Audit by the Auditor General" below.

Recent Developments and Pending Legislation

Act 88 of 2012 (formerly House Bill 3 and Senate Bill 344) ("***Act 88***") was signed into law on July 5, 2012. Act 88 authorizes "public-private" transportation partnership arrangements in the Commonwealth. The law allows the Commission, among other public entities, to enter into public-private partnerships for the construction of transportation infrastructure and facilities and for the lease of such facilities through long-term agreements. Act 88 prohibits a lease of the Turnpike Mainline without the further express approval of the General Assembly. However, the law does not restrict the Commission from entering into public-private partnership agreements which do not involve granting substantial oversight and control over the Turnpike Mainline to another entity, nor does it limit or preempt in any way the Commission's ability to enter into certain types of public-private partnership agreements currently allowed under its Enabling Acts. The Public

3 The information contained on such website link is not incorporated by reference in this Appendix A.

Private Transportation Partnership Board, established pursuant to Act 88, has issued an Implementation Manual & Guidelines for Public-Private Transportation Partnerships.

Act 165 of 2016 (formerly House Bill 2025) ("***Act 165***") was signed into law on November 4, 2016. Act 165, among other things, allows for the suspension of vehicle registration for unpaid tolls. Specifically, the vehicle suspension process is triggered by the failure to pay six (6) or more violations or incurring unpaid tolls or administrative fees of $500. Additionally, Act 165 assists the Commission with the collection of unpaid out-of-state tolls by authorizing PennDOT to enter into a reciprocity agreement for purposes of toll collection and enforcement penalties with another state or tolling entity. PennDot and the State of Delaware Department of Transportation, Division of Motor Vehicles ("***DelDOT***") entered into the first reciprocity agreement under Act 165. The Intergovernmental Cooperation Agreement for Enforcement of Tolls, effective September 11, 2018, provides that, *inter alia*, PennDOT and DelDOT will suspend or hold the registration of vehicles upon unpaid tolls, consistent with the laws and regulations of the other state, upon the request of such state.

Act 86 of 2018 (formerly Senate Bill 172) ("***Act 86***") was signed into law on October 19, 2018. Act 86 authorizes the Commission and PennDOT to conduct speed-enforcement operations inside active work zones using automated speed-enforcement systems and technology (the "**Automated System**"). The Automated System may only be used in active work zones when proper notice is provided to motorists, including two appropriate warnings signs that are conspicuously placed before the active work zone and notice on the Commission and/or PennDOT website(s). The Automated System will generate violation notices which will be sent, via first class mail, to all motorists that travel 11 mph or more over the posted speed limit in an active automated speed-enforcement work zone. A registered owner's first-time violation will be a written warning, the second violation will be a $75 fine and the third and all subsequent violations will be a $150 fine. The law went into effect in February 2019, but violations cannot be issued until two (2) months after official notice is published in the Pennsylvania Bulletin by either the Commission or PennDOT. Additionally, within eighteen (18) months from enactment, the Commission and PennDOT must establish a five (5) year automated speed enforcement system program.

A Resolution was adopted by the Senate of Pennsylvania on January 24, 2018 which directs the Joint State Government Commission to conduct an analysis of a potential consolidation of interstate operations at PennDOT and the Commission. To date, the Joint State Government Commission has not issued a report based on its analysis. The Joint State Government Commission is the primary non-partisan research organization that serves the Pennsylvania General Assembly.

Pennsylvania Legislative Proposals

From time to time, legislation is introduced in the Pennsylvania General Assembly (with respect to the Enabling Acts and otherwise) and in the United States Congress, the nature and content of which may affect the Commission. The Commission cannot predict whether any such legislation will be enacted into law, or how any such legislation may affect the Commission's ability to pay the Senior Indenture Obligations, the Subordinate Indenture Obligations, the Oil

Franchise Tax Revenue Bonds or the Registration Fee Revenue Bonds, or to perform its financial obligations pursuant to the Enabling Acts.

The Pennsylvania House of Representatives and the Pennsylvania Senate convene for a two-year session on the first Tuesday after New Year's Day in odd numbered years and adjourn (Sine Die) on November 30 of the next even numbered year. The current 2019-20 legislative session began on January 1, 2019.

Legislation either in discussion or introduced in the Pennsylvania General Assembly during the 2019-20 legislative session, that if enacted would materially affect the Commission, includes the following:

- Similar to legislation that was introduced but not enacted during the prior legislative session, Senate Bill 45, which if enacted would waive tolls for emergency vehicles when either directly responding to an emergency situation or participating in the escort of a fallen firefighter, ambulance service or rescue squad member, law enforcement office or armed service member killed in the line of duty, was introduced and referred to the Senate Transportation Committee on January 11, 2019.

- Similar to legislation that was introduced but not enacted during the prior legislative session, Senate Bill 466, which if enacted would grant disabled veterans a 50% discount in toll rates for use of the Turnpike System, was introduced and referred to the Senate Transportation Committee on March 21, 2019.

- Senate Bill 451 and House Bill 329, which if enacted would create a Commuter and Commerce Toll Tax Credit against certain Pennsylvania taxes for Pennsylvania-based drivers and businesses of up to 50 percent of the cost of tolls paid within the Commonwealth with a $500 cap per filer. Senate Bill 451 was introduced in the Senate and referred to the Senate Finance Committee on March 19, 2019. House Bill 329 was introduced and referred to the House Finance Committee on February 1, 2019.

- House Bill 905, which if enacted would create the Turnpike-to-Port Freight Reimbursement Fund at the Pennsylvania Treasury for the purpose of providing Commonwealth-funded reimbursement for certain Pennsylvania-based companies for their tolls when transporting goods to and from Pennsylvania port facilities along the Turnpike System, was introduced and referred to the House Transportation Committee on March 20, 2019.

- Senate Bill 177, which if enacted would create the Delinquent Debt Intercept Authority which would partner with the United States Treasury's Offset Program to collect outstanding money owed in delinquent taxes and debt (including tolls), was introduced and referred to the Senate Finance Committee on February 1, 2019.

The Commission cannot predict what other legislation may be considered by the General Assembly during the 2019-20 or future legislative sessions or if any proposals or initiatives may lead to the adoption of legislation that may affect the Commission and/or its operations.

Commission Litigation

On March 15, 2018, several individuals, entities and associations involved in or related to the commercial trucking industry (the "***Trucking Plaintiffs***") filed a class action lawsuit against the Commission, several individuals in their individual capacity and in their official capacity related to the Commission, an individual in her individual capacity and in her official capacity as Chair of the Commission and as Secretary of Transportation, and Governor Wolf, in both his individual and official capacity (the "***Defendants***"). The litigation is captioned Owner Operator Independent Drivers Association, Inc. et al. v. Pennsylvania Turnpike Commission et al., No. 1:18-cv-00608-SHR (United States District Court for the Middle District of Pennsylvania) (the "***Lawsuit***"). The Trucking Plaintiffs alleged that Act 44, as amended by Act 89 (hereinafter, "***Act 44/89***"), violated the Commerce Clause and the right to travel under the U.S. Constitution, either facially or as applied, because the Commission improperly imposes Turnpike tolls beyond that which is necessary for the operation and maintenance of the System and that the Commission expends toll revenues for purposes other than the operation and maintenance of the System.

The Lawsuit sought, among other things, the following injunctive remedies: (1) a permanent injunction enjoining the Commission from issuing any further bonds or incurring any additional debt for the purpose of making Act 44/89 payments; and (2) a permanent injunction prohibiting the Commission from using toll revenues to make payments on outstanding bonds issued to meet Act 44/89 obligations. Moreover, the Lawsuit seeks certain monetary damages including a refund of a portion of certain tolls allegedly imposed upon the Trucking Plaintiffs' use of the System in excess of what was reasonably necessary to pay for the cost of operating and maintaining the System, together with any legally applicable interest and other compensation.

The Commission along with all of the other Defendants had been vigorously defending Act 44/89 and the propriety of the Commission's imposition and use of Turnpike Toll revenues in court. All Defendants filed motions to dismiss the complaint. In addition, the Commission had filed an alternative motion for summary judgment. The Commission's motions asserted that Act 44/89, the amount of the Tolls and the use of the Toll revenues violate neither the Commerce Clause nor the Constitutional right to travel. The Commission also asserted that the uses of toll revenues fall within Congressional authorization.

On April 4, 2019, Judge Yvette Kane of the United States District Court for the Middle District of Pennsylvania (the "***District Court***") issued a decision in which the District Court determined that Tolls assessed by the Commission do not unduly burden interstate commerce or interfere with the constitutional right to travel and the Trucking Plaintiffs' complaint failed to state a claim upon which relief may be granted for violations of the dormant Commerce Clause or the constitutional right to travel. Accordingly, the District Court granted the Defendants' motions to dismiss the Trucking Plaintiffs' complaint.

By Notice of Appeal filed on April 4, 2019, the Trucking Plaintiffs provided notice of its appeal to the United States Court of Appeals for the Third Circuit of the District Court's decision. On April 18, 2019, the Third Circuit granted a joint motion to expedite the case. The Commission and the other Defendants will continue to vigorously defend Act 44/89 and the propriety of the Commission's imposition and use of the Turnpike Toll revenues in court. No assurance can be given as to the results of the appeal or the effect of such appeal on the Commission.

See "LITIGATION – Certain Litigation" in the forepart of this Official Statement.

Status of Delaware River Bridge

On January 20, 2017, the Delaware River Bridge was closed following the discovery of a fracture in a steel truss. Phase l of the work to stabilize the bridge was completed on January 23, 2017 while structural engineers engaged in a more comprehensive assessment and structural analysis to determine a permanent repair strategy. After the completion of certain repairs and extensive examination and testing of the bridge over several weeks by the Commission, the New Jersey Turnpike Authority (the "***Authority***") and the Federal Highway Administration and their respective experts and consultants, the bridge was fully reopened to traffic on March 9, 2017. Although further minor repairs will be performed on the bridge in the coming months, it is anticipated that the bridge will remain open while such future repairs are being made.

The bridge is jointly owned and maintained by the Commission and the Authority and all costs of operation, maintenance and repair of the bridge are shared equally by the Commission and the Authority. The Commission estimates that its 50% share of the costs of the repair, examination and testing of the bridge will be approximately $7,500,000, which will be paid by the Commission from bond proceeds as part of its Capital Plan. The Commission's Traffic and Revenue consultant has projected that the closure of the bridge resulted in the Commission incurring a loss of toll revenue on the Turnpike during the period between January 20, 2017 and March 9, 2017 of approximately $14,000,000 (1.8 million transactions).

In connection with the foregoing, the Commission has concluded with its insurer that the costs associated with the bridge repairs along with lost revenues relating to the bridge closure, will be covered under its All Risk insurance policy (subject to applicable deductibles). The insurer accepted the Commission's claim on February 7, 2018 and continues to review information submitted with the claim. To date, the Commission has met its $5 million deductible and has received $6.01 million as a partial payment under the claim and the insurer continues to review information submitted relative to the balance of the Commission's claim. The Commission maintains a $200 million (per occurrence) All Risk insurance policy including loss of business income coverage as further described under "CERTAIN OTHER INFORMATION - Insurance" below.

Additional Matters

Consistent with recommendations of the Commonwealth's Transportation Funding Advisory Commission, the Commission continues to be actively engaged with other Commonwealth administrative agencies in initiatives to streamline project delivery and increase operational efficiencies. Among such undertakings are a number of collaborative programs with PennDOT in various administrative and technical areas, including integration of communication and information systems, standardization of manuals and publications, and coordination of training, operations, project planning and construction phasing (all as outlined in an August 2011 report entitled *Mapping the Future between the Pennsylvania Turnpike Commission and the Pennsylvania Department of Transportation*). Meetings of Commission management with executives of both Pennsylvania Department of Environmental Protection and PennDOT continue to be held on a regular basis to discuss issues, define direction and explore future collaborative initiatives.

THE TURNPIKE SYSTEM

General

The present Turnpike System is composed of:

- the 359-mile Turnpike Mainline traversing the southern portion of Pennsylvania from east to west;
- the 110-mile north/south section identified as the Northeast Extension;
- the approximately 16-mile north/south connection, known as the Beaver Valley Expressway, which intersects the Turnpike Mainline in the southwestern portion of the Commonwealth;
- the approximately 13-mile Amos K. Hutchinson Bypass which adjoins the Turnpike Mainline near the New Stanton Interchange;
- the completed portion of the Mon/Fayette Expressway project totaling approximately 48 miles; and
- a 6-mile section of the Southern Beltway project from PA 60 to US 22.

For a more complete description of the Mon/Fayette Expressway and Southern Beltway projects, see "CAPITAL IMPROVEMENTS – Mon/Fayette Expressway and Southern Beltway" herein.

The Turnpike Mainline connects with the Ohio Turnpike at its western terminus and with the New Jersey Turnpike at its eastern terminus. The Turnpike Mainline commences on the eastern boundary of Pennsylvania at the Delaware River Bridge which connects the System to the New Jersey Turnpike. The Turnpike Mainline traverses the state in a westerly direction generally paralleling the southern border of the state immediately north of Philadelphia and south of Harrisburg to the vicinity of Somerset. West of Somerset, the highway follows a northwesterly direction to the northeast of Pittsburgh and to the Ohio state line, south of Youngstown, Ohio.

The System was constructed prior to the development of the National Interstate Highway System and no Federal Highway Trust Fund monies have been utilized in the construction of the Turnpike Mainline, Northeast Extension, Beaver Valley Expressway or Amos K. Hutchinson Bypass section of the Turnpike System. However, portions of the System have been designated as Interstate Routes. The Turnpike Mainline has been designated as Interstate Route 276 between the area where Interstate Route 95 crosses the System and the Valley Forge Interchange. With the September 2018 opening of the interchange connecting the Turnpike Mainline with Interstate 95, the portion of the Turnpike Mainline east of the new interchange has been designated as Interstate 95. The portion of the Turnpike Mainline west of the Valley Forge Interchange to the western terminus at the Ohio state line has been designated as Interstate Route 76. In addition, the Turnpike Mainline between the New Stanton and Breezewood Interchanges has been designated as Interstate Route 70. The Northeast Extension has been designated as Interstate Route 476. Portions of the Beaver Valley Expressway are designated as Interstate Route 376.

The System was constructed and opened to traffic in sections. The original Turnpike Mainline segment between Irwin and Carlisle was opened in 1940. Ten years later, in 1950, the 100-mile section between Carlisle and King of Prussia was completed and opened. After 1950, construction of new segments of the System occurred at more frequent intervals with the Turnpike Mainline segment placed in service as of May 1956. The initial segment of the Northeast Extension between the Turnpike Mainline and the temporary interchange just south of the Lehigh Tunnel was opened in 1955. The final segment, from the temporary interchange to Scranton, was completed and opened for traffic in November 1957.

The Delaware River Bridge, which connects the Turnpike Mainline with the New Jersey Turnpike System, is owned jointly by the Commission and the New Jersey Turnpike Authority.

Interchanges and Service Plazas

The System has a total of 68 toll interchanges which connect it with major arteries and population centers along its 552-mile traffic corridor. Thirty-two of the interchanges are located on the Turnpike Mainline, including Turnpike Mainline barriers at the New Jersey and Ohio state lines, and 11 interchanges are situated on the Northeast Extension. The additional 25 interchanges are located on the Beaver Valley Expressway, Amos K. Hutchinson Bypass, and completed segments of the Mon/Fayette Expressway and Southern Beltway. In addition, the System also has four E-ZPass Only interchanges as discussed below under "E-ZPass Only".

There are 17 service plazas along the System providing gasoline and diesel fuel, other automotive supplies and services, and restaurant services. The Commission has entered into long term service plaza redevelopment agreements with HMSHost Restaurants, LLC and Sunoco, Inc.[4] to design, reconstruct, finance, operate and maintain all of the service plazas. The Commission has no responsibility for maintaining the service plazas under the agreements. Since the Commission entered into the agreements in 2005, all 17 rebuilt service plazas have opened. Cumulatively, HMSHost Restaurants, LLC and Sunoco, Inc. have invested approximately $190 million in service renovation projects, at no cost to the Commission. The Commission recorded income of approximately $3.9 million and $4.1 million under the service plaza agreements in Fiscal Years 2017-2018 and 2016-2017, respectively, which is based on volume rental payments plus a percentage of revenue generated.

Additional Services

In addition to 754 field personnel in 23 facilities available to keep the roadway open and safe in the event of unfavorable road conditions, the Commission has a 24/7 Traffic Operations Center which monitors conditions on the System and provides emergency dispatch.

A Turnpike Roadway Information Program provides real-time data to drivers. Travelers are alerted to roadway conditions via Variable Message Signs, Highway Advisory Radio and alerts via e-mail and mobile phone.

[4] Pursuant to an Assignment and Assumption of Real Property Lease Agreement executed on January 23, 2018, Sunoco Retail LLC, as successor in interest to Sunoco, Inc. (R&M) ("Sunoco"), assigned its interest in the lease agreement by and between the Commission and Sunoco, as amended and supplemented, to 7-Eleven, Inc.

In September 2011, Commission officials along with representatives from sponsor State Farm Insurance released a smartphone application that enhances safety for those traveling the System. The free iPhone and Android application is an innovative method for travelers to keep up-to-date on current conditions on the roadway.

In December 2011, the Pennsylvania Department of Environmental Protection announced a $1 million grant award to help develop electric vehicle infrastructure on the System. The grant recipient, Car Charging Group Inc. (CCGI) was to install charging stations at 15 of the System's mainline service plazas (the Project). The Commission committed additional funding of up to $500,000 to upgrade the electrical systems at the plazas to accommodate the charging stations. The first three phases of the work have been completed. Electric vehicle charging stations are currently installed and operational at the following service plazas: New Stanton, Oakmont, King of Prussia, Bowmansville and Peter J. Camiel. CCGI is unable to complete the Project. As a result, on April 19, 2017, DEP terminated the grant and revoked further funding under the grant. The Commission is in the process of attracting other vendors to complete the project, at which time the Commission will terminate its agreement with CCGI.

In February 2013, the Commission announced that free Wi-Fi service is available at all operational service plazas. The amenity was added to accommodate Turnpike System customers who want to use smartphones, tablets, laptops or other portable devices to access the internet while traveling.

In September 2013, the Commonwealth Financing Authority announced a $500,000 grant to Sunoco, Inc., a portion of which was used to partially fund a compressed natural gas refueling station located at the New Stanton service plaza, the first natural gas refueling station on the System. Construction was completed and the refueling station opened in November 2014.

In October 2016, the Commission authorized the award of contracts to legal firms and financial consultants to assist in exploring a broadband network public-private partnership (P3) project, including the designing, building, financing, operating and maintenance of a fiber network for Commission data communications and the marketing and leasing of excess network capacity to private users along the System. The new system would replace an existing digital microwave network. The Commission shortlisted potential P3 teams and received three proposals. While the proposals demonstrated that the network could generate commercial revenue, none of the proposals were deemed to be financially advantageous to the Commission. As a result, the Commission announced in December 2018 that it was ending its pursuit of a P3 project and will pursue other options for its communication network.

E-ZPass Lanes

The Commission has installed E-ZPass, a form of electronic toll collection, throughout the System. Not only has E-ZPass enhanced safety and convenience for users of the System, but the technology has improved traffic flow and reduced congestion at the System's busiest interchanges, especially in southeastern Pennsylvania. The use of electronic tolling has enhanced the overall efficiency of the Commission's toll collections operations and has resulted in a reduction in the number of required full-time and part-time toll collectors. Express E-ZPass lanes have been constructed at seven interchanges and permit E-ZPass customers to travel through the toll plaza at highway speeds. In addition, and as of September 1, 2018, E-ZPass customers traveling in 17 other states that have implemented E-ZPass technology are able to use E-ZPass in those states. Currently, E-ZPass is available on the entire System, including the western extensions. The Commission has not experienced any material problems in connection with the installation or operation of the E-ZPass system.

To help ensure, protect and preserve the collection of toll revenue due to the Commission, a violation enforcement system ("***VES***") has been installed at all interchanges where E-ZPass has been installed to identify violators (customers who travel through E-ZPass lanes and do not have E-ZPass) and motorists with problem tags that are unreadable. VES enables the Commission to collect appropriate tolls and other additional fees relating to violations. Legislation passed in 2000 included enforcement provisions for E-ZPass, including, among other things, certain evidentiary presumptions with respect to whether the registered vehicle owner was the operator of the vehicle, procedures for notifying the vehicle owner of the violation charged and the imposition upon the vehicle owner of civil penalties for violations. Act 89 included enhanced fare evasion measures and criminal penalties pertaining to E-ZPass violators. Under Act 89, motorists who commit or attempt to commit fare evasion on the System shall have committed a summary offense and upon conviction, shall be fined a sum between $100 and $1,000 in addition to civil penalties that are already in place. Further, motorists who take affirmative action to evade a System fare shall, upon conviction, have committed a misdemeanor of the third degree which will be punishable by fines ranging from $3,000 to $6,500 (depending on the number of offenses) and imprisonment of not more than six months for a second offense. Revenue generated from the additional fare evasion fines imposed by Act 89 is to be deposited in the Commonwealth's Motor License Fund rather than with the Commission; however, restitution for the full fare is due to the Commission. See "CERTAIN FINANCIAL INFORMATION - Performance Audit by the Auditor General" below for Auditor General findings with respect to enforcement powers of Commission. Subsequent to the Auditor General's Performance Audit, Act 165 was signed into law which, among other things, allows for the suspension of vehicle registration for unpaid tolls. In January 2018, the Commission began sending notices of possible vehicle registration suspensions under authority from Act 165 and in February 2018, PennDOT began suspending certain vehicle registrations. More recently, in April 2018 the Commission began filing criminal charges against some of the largest toll violators for theft of services. Such criminal charges are being brought in cooperation with local prosecutors and have resulted in various plea and settlement arrangements. See "THE COMMISSION - Recent Developments and Pending Legislation" above for additional information on Act 165.

The Commission's annual revenues from Electronic Toll Collection (ETC – which includes revenues from E-ZPass, VES and Toll by Plate) have increased to $958.6 million during the Fiscal Year ended May 31, 2018 from $860.1 million for the Fiscal Year ended May 31, 2017. The Commission's annual revenues from ticketed drivers (i.e., those not using ETC) decreased to $244.6 million during the Fiscal Year ended May 31, 2018 from $254.9 million for the Fiscal Year ended May 31, 2017. The Commission expects that E-ZPass usage will continue to increase. The following table summarizes the Commission's ETC penetration rates among passenger, commercial and total users for Fiscal Years 2014-2018.

ETC Penetration Rates

Fiscal Year	Passenger	Commercial	Total
2014	70%	85%	72%
2015	73%	87%	75%
2016	75%	89%	77%
2017	78%	90%	79%
2018	81%	92%	83%

The Commission is a member of the E-ZPass Interagency Group ("***IAG***"), a coalition of toll authorities throughout the United States. IAG includes the following agencies: Buffalo and Fort Erie Public Bridge Authority (Peace Bridge); Burlington County Bridge Commission; Central Florida Expressway Authority; Delaware Department of Transportation; Delaware River and Bay Authority; Delaware River Joint Toll Bridge Commission; Delaware River Port Authority; Illinois State Toll Highway Authority; Indiana Toll Road Concession Company; Maine Turnpike Authority; Maryland Transportation Authority; Massachusetts Department of Transportation; Metropolitan Transportation Authority Bridges & Tunnels; New Hampshire Department of Transportation; New Jersey Turnpike Authority; New York State Bridge Authority; New York State Thruway Authority; North Carolina Turnpike Authority; Ohio Turnpike & Infrastructure Commission; Port Authority of New York and New Jersey; Rhode Island Turnpike and Bridge Authority; South Jersey Transportation Authority; Thousand Island Bridge Authority; Virginia Department of Transportation; West Virginia Parkway Authority; Skyway Concession Co. LLC; Niagara Falls Bridge Commission; and Kentucky Public Transportation Infrastructure Authority. IAG's stated mission is "to enable E-ZPass members and affiliated toll operators to provide the public with a seamless, accurate, interoperable electronic method of paying tolls and fees while preserving and enhancing the E-ZPass program."

New highway construction projects, such as the Mon/Fayette Expressway and Southern Beltway, are being designed and built to be compatible with the E-ZPass system. The installation of the E-ZPass system has required the incorporation of innovative technologies into a single toll system that uses hardware and software adaptable to future technologies. The Commission has a contract, extending through 2024, with TransCore Company for the design, installation and maintenance of the E-ZPass system software and hardware and the operation of the E-ZPass Customer Service and Violations Processing Centers. The E-ZPass system implementation is a major component of the Commission's Capital Plan. For a more complete description of the Commission's Capital Plan, see "CAPITAL IMPROVEMENTS – Ten-Year Capital Plan" herein. Plans call for enhancements to E-ZPass lane signage and the design of additional Express E-ZPass lanes.

See "CERTAIN FINANCIAL INFORMATION – Toll Schedule and Rates" below for a discussion of the Commission's toll rates, including recent revisions for E-ZPass customers.

E-ZPass Plus

In November 2009, the Commission began offering E-ZPass customers who meet specific criteria the ability to participate in E-ZPass Plus. E-ZPass Plus allows E-ZPass customers to use their transponder to pay for parking fees at participating facilities displaying the E-ZPass Plus logo.

E-ZPass Only

The Commission has constructed four E-ZPass Only interchanges which are designed for the exclusive use of E-ZPass customers: Virginia Drive (located east of the Fort Washington interchange); Street Road (located west of the Bensalem interchange); Route 29 (located west of the Valley Forge Interchange) and at Route 903 in Carbon County. E-ZPass Only entrance and exit ramps (not a full interchange) have also been constructed at Lansdale (original toll booth/E-ZPass interchange remains open to all traffic). In addition, cashless tolling locations have been constructed and are operational at the following locations: 1) Delaware River Bridge (westbound) which is part of the I-95 Connector in Bucks County; 2) Beaver Valley Expressway; 3) Keyser Avenue/Clark Summit; and, 4) Findlay Connector. These E-ZPass Only interchanges, cashless tolling and other similarly planned interchanges are expected to reduce congestion at the System's busier interchanges and provide convenient access to industrial parks and job centers.

Cashless Tolling

Early in 2011, the Commission initiated a feasibility study to examine the benefits and potential issues associated with converting the toll road to a cashless system. The team of McCormick Taylor/CDM Smith (formerly Wilbur Smith Associates) was selected to conduct the study which included an overview of the existing toll collection system and an analysis of cashless systems throughout the United States, comparing the costs and benefits of various electronic tolling options. The feasibility report (the "***Feasibility Report***") was completed in March 2012, and at that time the Commission determined, based on the assumptions in the Feasibility Report, that conversion to a cashless system was technically feasible from both a financial and physical perspective. In July 2012, the Commission selected HNTB Corporation to act as its Program Manager to lead and direct the multi-disciplinary efforts required to manage and coordinate the design and implementation of a cashless system. The Conceptual Implementation Plan report, including a schedule for conversion, was issued in October 2014.

Following the enactment of Act 89, the Commission re-evaluated the schedule, which had contemplated full conversion to a cashless, non-stop system by 2018, and determined that a modified schedule for implementation would be necessary. Further consideration resulted in an approach whereby the existing toll lanes would be equipped with the necessary technology to allow for cashless tolling to occur at the existing plaza locations. At present, the Commission has authorized the deployment of four segments of the cashless system consisting of the Delaware River Bridge, which went into operation in January 2016; the Beaver Valley Expressway, which went into operation in April 2017; Keyser Avenue/Clarks Summit, which went into operation in April 2018; and the Findley Connector, which went into operation in June 2018. Two additional segments are expected to convert to cashless tolling during 2019 as both the Amos K. Hutchinson Bypass and Gateway segments are expected to begin operations in October 2019. Cashless tolling is being implemented, in part, by a new "TOLL BY PLATE" system. Non-E-ZPass customers are invoiced for assessed tolls. Cameras on overhead gantries capture a vehicle's license plate at highway speed, and a toll invoice is mailed to the vehicle's registered owner. Although existing toll booths would be removed from service at locations where TOLL BY PLATE is implemented, E-ZPass customers will still use transponders to pay tolls at such locations as overhead gantries are equipped to read E-ZPass transponders. Additional information regarding a cashless tolling system is available on the Commission's website at http://www.paturnpike.com/cashlesstolling/cashlesstolling.asp.[5]

CAPITAL IMPROVEMENTS

Act 61 Projects

In 1985, the General Assembly of the Commonwealth enacted Act 61. Act 61, among other things, authorized and empowered the Commission to undertake the construction of new projects and to operate them as part of the System. Although Act 44 repealed Act 61, it provides that all activities initiated under Act 61 shall continue and remain in full force and effect and may be completed under Act 44.

System Maintenance and Inspection

The Commission's engineering and maintenance staff performs maintenance on, and repairs to, the System. In addition, the Commission also uses staff and consultants to perform periodic inspections of the System. Pursuant to the terms of the Senior Indenture, the Commission must arrange for the System to be inspected at least once every three years by engaging one or more consultants to conduct inspections and prepare a report. The report must state (a) whether the System has been maintained in good repair, working order and condition since the last inspection report and (b) any recommendations which such consultants may have as to revisions or additions to the Commission's annual capital budget. The most recent inspection report, the Pennsylvania Turnpike Condition Assessment Report 2017 (submitted to the Commission in February 2018), was prepared by Michael Baker International (the "***Condition Assessment Report***"). The next Turnpike Condition Assessment Report is scheduled for completion during 2020 and the Commission anticipates receiving the report in either late 2020 or early 2021.

Based on reviews performed by others as well as their own observations, the authors of the Condition Assessment Report found that, "the overall condition of the System is good except for specific areas noted in the report."

The following summarizes certain information found in the Condition Assessment Report, including certain of the "specific areas" referred to in the preceding paragraph, and in inspection data gathered in 2017. Three of the four asset groups, including Roadway, Structures and Facilities are rated "Good" overall. The asset group Technology is rated "Fair" to "Good." Each of the asset groups is in working order based on the condition ratings of the individual assets within the asset group. The individual asset condition rating was developed through an extensive evaluation of available performance data that was both qualitative and quantitative. There were several different evaluation measures used across the array of Commission assets. The derivation of the

5 The information contained on such website link is not incorporated by reference in this Appendix A.

individual asset rating is detailed in each section of the Condition Assessment Report. The following is an overall summary for each of the four asset groups.

Roadway

The recent roadway pavement inspection data indicate that the overall condition of the Commission pavement meets or exceeds established criteria with the area noted for skid resistance as the only exception. The supporting roadway features guiderail, attenuators, and median barrier are generally in Fair to Good condition. These assets require regular inspection and prompt repair when damaged for the safety of the Commission customers. Stormwater/Best Management Practices facilities are in Good condition and are being inspected in accordance with permitting requirements; however, a continued focus on regular maintenance or repair of these facilities is needed to keep them functioning as intended. The roadway drainage system seems to be in Fair condition based on qualitative approach used to evaluate this asset. More detailed inspections would be needed to verify the condition of drainage facilities and to establish necessary maintenance activities beyond the routine annual maintenance that the Commission currently performs. Based on a recent visual inspection and a comparative analysis from the 2015 Rock Cut Evaluation, the rock cuts appear to be in Good condition. The overall condition of signs is Good and is being maintained adequately. Recent field evaluations of the Commission's highly reflective pavement markings and waterborne pavement markings at selected locations indicate that the Commission's pavement markings are in Good condition.

Structures

The Turnpike's bridges and culverts are in Good condition with about 4.2 percent noted as structurally deficient and 58 percent exceeding 50 years in age. Sign structures are in Good condition. Retaining walls/noise barriers are in Good condition overall, with only minor areas of concern and no loss of structural integrity. High mast light poles appear to be in Fair condition. High mast light poles are being removed with construction projects that impact them and will ultimately be phased out. Turnpike tunnels are generally in Fair condition with special attention to be given to structural elements (i.e., ceiling slabs, hanger rods) for corrective action, if needed.

In January 2019, PennDOT, through its P3 Office, invited interested teams to respond to a Request for Information (the "RFI") to provide feedback information and materials for the Commission to consider the development of a bundled tunnel rehabilitation project. The purpose of the RFI is to gather feedback and information related to the development, design, construction, finance and maintenance of the Turnpike tunnels and tunnel systems.

Facilities

Facility condition reports are shared with HMS/Host and Sunoco, who are contractually obligated to operate and maintain the service plazas, to assist with their maintenance responsibilities and capital plans reflecting maintenance needs. Annual facility condition assessments are completed by the Commission and shared with HMS/Host. HMS/Host takes corrective actions on deficiencies and informs the Commission when corrected. The Commission does monthly inspections to ensure deficiencies have been corrected. Issues raised regarding the service plaza conditions have been resolved by HMS/Host and there are no current issues regarding the conditions of the service plazas. The service plazas are rated as Good. Maintenance buildings are in Fair condition with a number of these buildings requiring rehabilitation. Projects are developed based on Condition Assessment reports with funds being allocated to the Capital Plan to support these projects. The overall condition is Good for the following facilities types: Interchange buildings, Administration buildings, District Fare Collection buildings, and Stockpiles. The State Police Station facilities are rated Good. The two warehouse and training facilities that were assessed in conjunction with the Eastern Training Facility are rated in Fair to Good condition. Overall, the Communication Towers are rated as Fair. Since taking responsibility for inspection and maintenance of the communication towers in 2013, Facilities and Energy Management Operations has advanced a tower climbing and structural analysis review program to assess the condition of Communications Towers. Climbing inspections have been completed on 93% of the towers. Currently, eleven communication towers leased have been determined structurally overstressed and will exceed their design capacity if PTC modifications are made as part of a System-wide communications update initiative without structural reinforcement or other remedial actions. The Commission is currently working on reinforcement or tower replacement projects to support this initiative.

Technology

Technology is comprised of Intelligent Transportation System ("***ITS***") devices, Access Gates and Cashless Tolling equipment. The overall condition is Fair to Good for the ITS devices that were evaluated. The Commission's Information Technology Department continually monitors the virtual network and provides support in troubleshooting issues as needed. The Commission's ITS contractor maintains the ITS equipment through preventative and response maintenance plans. Access Gates are rated in Fair condition and are in the process of being upgraded to improve access capabilities. Cashless Tolling assets were recently deployed and are in Good condition.

Ten-Year Capital Plan

The Commission prepares the Capital Plan for its facilities and equipment (exclusive of the Mon/Fayette and Southern Beltway projects), consisting of the Highway Program, the Technology Program, Fleet Equipment, and Facilities and Energy Management Operations, which it updates each year. All capital projects are reviewed and prioritized and the most critical and important projects necessary to maintain the System in a state of good repair are pursued. The Commission undertook a five-year program of enhanced capital spending, initiated in 2012, to address critical needs of the System such as structurally deficient bridges and total reconstruction projects on the Turnpike Mainline. As a result of the five years of enhanced capital spending, the Commission's percentage of structurally deficient bridges (by count) decreased from 8.1% to 3.8% and the Commission's International Roughness Index improved from 84 to 73 (lower is preferable). Also, the enhanced capital spending enabled the construction of the I-95 toll modifications and primary connections (north/east and west/south, also known as Sections D10 and D20) between I-95 and the Turnpike Mainline, which opened in September 2018.

The Capital Plan for Fiscal Year 2020 was adopted by the Commission on May 7, 2019. The adopted Capital Plan calls for investment of approximately $5.889 billion, net of federal reimbursements, over the coming decade and is estimated to support approximately 32,000 jobs from Fiscal Year 2016 to Fiscal Year 2020. The Capital Plan enables the Commission to undertake a number of capital improvements and to pursue new initiatives to maintain and improve the System ensuring that it remains in a state of good repair. The Capital Plan provides continued investment into the System, with an emphasis on the total reconstruction of the Turnpike Mainline and Northeast Extension, addressing structurally deficient bridges and the protection of the infrastructure assets of the Commission. The Capital Plan for Fiscal Year 2020, at approximately $5.889 billion, represents a relatively constant level of anticipated spending from the capital plan last adopted in June 2018 which totaled $5.852 billion. The Capital Plan for Fiscal Year 2020 represents continued investment in critical capital projects and therefore aids in the protection of Commission assets. The Capital Plan represents a continuation by the Commission to its historic levels of capital investment and the Capital Plan will require the issuance of additional debt throughout the ten-year period. The Commission believes that the capital spending and additional debt issuance, along with the continuing burden of Act 44 obligations to PennDOT, will require the imposition of annual toll increases throughout the ten-year period and beyond. The Traffic Study prepared by CDM Smith (formerly Wilbur Smith Associates) contemplates toll increases of 3.0% to 6.0% in each year.

Exhibit I attached to this Appendix A indicates budget allocations by program for the Capital Plan.

The Highway Program consists of roadway, bridge, tunnel and toll plaza/interchange projects. The Technology Program consists of toll collection, communication, and other electronic information management projects. The Fleet Program funds rolling stock that is required to maintain the System. The Facilities and Energy Management Program consists of buildings and large, heavy or high value equipment needs.

The highest priority highway project for the Commission is the ongoing full depth roadway total reconstruction of the east/west Turnpike Mainline and Northeast Extension. This work includes the reconstruction and widening of the roadway, the widening of the median, and the replacement of both Mainline and overhead bridges. To date, approximately 140 miles of total reconstruction have been completed and approximately 11 miles are currently in construction with another 82 miles either in the planning or design phase. Total reconstruction projects from Milepost 40 to 44 and Milepost A-31 to A-38 are in construction.

Based on the Capital Plan, the Commission plans to spend approximately $2.14 billion on total reconstruction projects and approximately $0.7 billion on various bridge and tunnel projects over the next ten years. In total, the Highway Program includes funding of approximately $4.783 billion over the next ten years.

The Technology Program includes funding of approximately $177 million over the next ten years to address the Commission's technology needs including toll collection projects, communication, application development and technical operational needs. The Commission has implemented SAP ERP to provide a set of integrated business processes supported by multi-module application software with a centralized data repository.

The Fleet Program includes funding of approximately $167 million to purchase rolling stock to insure adequate maintenance of the roadway system.

The Facilities and Energy Management Program includes funding of approximately $387 million to repair and replace the aging facilities of the Commission. This commitment will ensure that major equipment and facilities are in good repair to support ongoing Turnpike System operations.

The implementation of and the potential conversion to a cashless tolling system is estimated to require approximately $431 million in capital funding over the next ten years. At present, as described above, the Commission has implemented cashless tolling at four locations. See "THE TURNPIKE SYSTEM – Cashless Tolling" herein for additional information.

Mon/Fayette Expressway and Southern Beltway

Four projects constructed as part of the Mon/Fayette Expressway are now in operation. One is an approximately six-mile toll road between Interstate Route 70 and U.S. Route 40 in Washington County. This project was built by PennDOT and turned over to the Commission upon its opening in 1990. The second is an approximately twelve-mile section of toll road from I-68 near Morgantown, West Virginia, to Fairchance, Pennsylvania, which is located just south of Uniontown. The third project is an approximately sixteen-mile section of the Mon/Fayette Expressway from Interstate Route 70 in Washington County to Pennsylvania Route 51 in Allegheny County, which opened in April 2002. The fourth is an approximately fifteen-mile section from Uniontown to Brownsville, including a 3,022-foot bridge over the Monongahela River, which opened to traffic in July 2012. These four contiguous projects, which total 48 miles from Morgantown, West Virginia to PA Route 51 south of Pittsburgh, are now part of the System. On March 21, 2017, the Commission announced that it would stop engineering-design activities on the final 14-mile section of the Mon/Fayette Expressway, extending from PA Route 51 to Interstate Route 376 near Monroeville east of Pittsburgh, in light of the Southwestern Pennsylvania Commission's recent decision to table the project. On June 26, 2017, the Southwestern Planning Commission voted to add the final 14-mile segment of the Mon/Fayette Expressway to its long-range plan. This action will allow the Federal Highway Administration to approve changes to the environmental impact statement, a requirement for construction to commence. The current estimates to complete the final 14 miles of the Mon/Fayette Expressway to Interstate Route 376 are in excess of $2 billion.

When eventually completed, the Mon/Fayette Expressway would extend from Interstate 68 in West Virginia to Interstate Route 376 in Monroeville, which is east of Pittsburgh.

The proposed Southern Beltway is to be constructed from the Mon/Fayette Expressway, near Finleyville, extending as part of a beltway south of Pittsburgh to Interstate 376 at the Pittsburgh International Airport. It is comprised of three distinct projects. The six-mile project from I-376 to U.S. 22 (also known as the Findlay Connector) opened to traffic in October 2006. The project from U.S. 22 to I-79, received environmental clearance for its 13 miles in September 2008 and is under construction with an estimated total project budget of $1.013 billion. Two of the seven roadway sections were bid in 2016, two were bid in 2017 and the remaining three sections were bid in 2018. Section 55A1, Section 55B, Section 55C1-1, Section 55C1-2 and 55C2-2 are currently in construction. When completed in late 2021, the U.S. 22 to I-79 portion of the Southern Beltway will be a cashless tolling facility. The remaining Southern Beltway project, from I-79 to the Mon/Fayette Expressway, received environmental clearance in May 2009. The final portion of the Southern Beltway is currently estimated to cost approximately $788 million. An EIS re-evaluation has been completed for the Mon/Fayette Expressway and approved by PennDOT and FHWA. Final design is proceeding on the southern sections of the Mon/Fayette Expressway. Public plans displays for these southern sections were held the first week of April 2018. The proceeds of the Commission's Oil Franchise Tax Revenue Bonds, Series A and B of 1998, Oil Franchise Tax Revenue Bonds, Series A, B and C of 2003, and Oil Franchise Tax Revenue Bonds, Series A-1, B, C, D-2 and E of 2009, and Registration Fee Revenue Bonds, Series of 2001, along with then currently available revenues, were applied to fund the construction of the Mon/Fayette and Southern Beltway projects that have been completed to date. It is anticipated that the remaining costs to complete the Mon/Fayette Expressway and the Southern Beltway will be financed with Oil Franchise Tax Revenues (as defined herein), proceeds of the Oil Franchise Tax Senior Revenue Bonds, Series A of 2018 and the Oil Franchise Tax Subordinate Revenue Bonds, Series B of 2018, along with other funding sources. Although the open sections of the Mon/Fayette Expressway and the Southern Beltway are toll roads, the Tolls (as defined herein) pledged for the repayment of Turnpike Revenue Bonds will not be applied to the financing of their construction, which will be funded by Oil Franchise Tax Revenues.

The Commission has no legal obligation to complete the unfinished portions of the Mon/Fayette Expressway and Southern Beltway projects at this time. However, Act 89 has generated $142.8 million in annual Oil Franchise Tax Revenues for the Commission as of Fiscal Year 2017-2018.

I-95 Interchange

I-95 was completed in 1969 without an interchange connecting it to the Turnpike Mainline. Interstate travelers must either by-pass the Philadelphia area entirely or exit the interstate system and navigate a complex system of local roadways to access I-95 again in New Jersey.

The Commission completed the first of three phases of its Pennsylvania Turnpike/I-95 Interchange Project (the "***Interchange Project***") in September 2018. The main objectives of the Interchange Project are to improve the linkage between I-95 and the Turnpike Mainline to create continuity in the interstate system, relieve congestion on local roads which are currently used by travelers to make the connection between I-95 and the Turnpike Mainline, create additional capacity on the Turnpike Mainline and I-95 to accommodate the transfer of traffic from the local roadway system, and improve travel times through the interchange area.

The first phase of the Interchange Project included preparatory work and construction of a portion of the interchange between I-95 and the Turnpike Mainline, including northbound I-95 to the eastbound Turnpike Mainline and westbound Turnpike Mainline to southbound I-95 and is currently under construction. This phase included construction of a new mainline toll plaza and a cashless tolling plaza westbound, which opened in January 2016. The first phase of the Interchange Project was completed and opened to traffic in September 2018. The portion of the Turnpike Mainline from the Interchange Project eastward to the Delaware River Bridge in Bucks County has been redesignated as Interstate 95. The second phase of the Interchange Project will include the completion of the reconstruction and widening of the remaining interchange connectors. The third phase will be the construction of a new wider bridge over the Delaware

River, replacing the existing bridge. Funding for construction of the first phase is included in the Capital Plan. Funding for the second and third phases is not included in the Capital Plan.

CERTAIN FINANCIAL INFORMATION

Revenue Sources of the Commission

The Commission's revenues are principally derived from three separate sources: toll revenues from the operation of the System, revenue derived from a portion of the Commonwealth's Oil Franchise Tax, and revenue derived from a portion of the Commonwealth's vehicle registration fee revenues.

Toll Revenues

The largest part of the Commission's revenues is derived from the collection of all rates, rents, fees, charges, fines and other income derived by the Commission from the vehicular usage of the System and all rights to receive the same (the "***Tolls***"). The Tolls are presently pledged to secure the Commission's Turnpike Revenue Bonds, other Senior Indenture Parity Obligations, as well as any subordinated indebtedness that may be issued under the Senior Indenture (collectively, the "***Senior Indenture Obligations***"). As of the date of this Official Statement, the Commission has $5,385,455,000 aggregate principal amount of Turnpike Revenue Bonds outstanding under the Senior Indenture.

The foregoing amount includes certain notes evidencing and securing $295,000,000 in loans through the Immigrant Investor Program (known as the EB-5 visa program) administered by the U.S. Citizenship and Immigration Services, the proceeds of which are being used to fund a portion of the I-95 Interchange Project and projects identified in the Commission's 2020-2029 Ten-Year Capital Plan (the "***EB-5 Loans***"). The EB-5 Loans have been issued in six tranches (3 tranches on March 18, 2016, a fourth tranche on May 11, 2016, a fifth tranche on February 21, 2018 and the most recent tranche on November 13, 2018), each having a five-year term. At the end of each five-year term, the Commission will evaluate market conditions to determine whether to refinance the loans into either long term, privately placed or publicly offered Turnpike Revenue Bonds, based on numerous factors including the lowest available interest rates. See https://emma.msrb.org/ES1058248-ES826410-ES1227554.pdf[6], https://emma.msrb.org/ES1058220-ES826391-ES1227532.pdf[7], https://emma.msrb.org/ER1284410.pdf[8] and https://emma.msrb.org/ER1177947-ER920807-ER1321434.pdf[9] for additional information on the EB-5 Loans.

Also included in the principal amount outstanding under the Senior Indenture as of the date of this Official Statement is $863,470,000 aggregate principal amount of variable rate obligations. See "CERTAIN FINANCIAL INFORMATION – Direct Purchase Obligations" for a summary of direct purchase obligations of the Commission. Other obligations incurred and outstanding under the Senior Indenture include the Commission's obligations under various interest rate swap agreements having a total current notional amount of $942,280,000. The Tolls are not pledged to

6 The information contained on such website link is not incorporated by reference in this Appendix A.

7 The information contained on such website link is not incorporated by reference in this Appendix A.

8 The information contained on such website link is not incorporated by reference in this Appendix A.

9 The information contained on such website link is not incorporated by reference in this Appendix A.

secure the Oil Franchise Tax Revenue Bonds (as defined below), the Registration Fee Revenue Bonds (as defined below) or the bonds and other obligations issued (or otherwise secured) under the Subordinate Indenture (the "***Subordinate Indenture Obligations***"). All Subordinate Indenture Obligations are subordinated to the payment of the Senior Indenture Obligations issued under the Senior Indenture. See "THE COMMISSION – Enabling Acts - *Issuance of Bonds; Commission Payments*" herein.

Neither the Subordinate Revenue Indenture Obligations, the Oil Franchise Tax Revenue Bonds, nor the Registration Fee Revenue Bonds are secured by or have any interest in the trust estate established pursuant to the Senior Indenture.

The Commission may in the future, under the terms of the Senior Indenture, identify in writing certain roads, other than the Turnpike Mainline and the Northeast Extension, as not being part of the System for the purposes of the Senior Indenture which would eliminate toll revenues from these portions from the definition of Tolls under the Senior Indenture. The Commission currently has no plans to remove any roads from the System. In addition, under the Senior Indenture, the Commission has covenanted that it will not sell, lease or otherwise dispose of real estate or personal property comprising a portion of the System except upon compliance with the provisions of the Senior Indenture, including a determination by resolution that the Net Revenues of the Commission will not be materially adversely affected. The Commission from time to time may consider various proposals that could involve the transfer or other disposition of Commission property. Any such transfer or disposition would be required to comply with the provisions of the Senior Indenture.

[Remainder of Page Intentionally Left Blank]

Oil Franchise Tax Revenues

The Commission's second principal stream of revenues consists of that portion of the Commonwealth's oil company franchise tax revenues (the "***Oil Franchise Tax Revenues***") allocated by statute to the Commission and pledged to the holders of bonds (also referred to herein as the "***Oil Franchise Tax Revenue Bonds***") as part of the Trust Estate securing those bonds. As of the date of the Official Statement, the Commission has $1,056,053,135.70 aggregate principal amount of Oil Franchise Tax Revenue Bonds outstanding under the Indenture (including compounded amounts as of June 1, 2019). The Oil Franchise Tax Revenue Bonds are secured solely by the Trust Estate securing those bonds which includes, among other things, such Commission Allocations. **The Oil Franchise Tax Revenues are not pledged to secure any Senior Indenture Obligations, any Subordinate Revenue Indenture Obligations or any Registration Fee Revenue Bonds.** Note, however, that funds in the Oil Franchise Tax General Fund may be used by the Commission for any purposes as authorized by the Enabling Acts.

Registration Fee Revenues

The Commission's third principal stream of revenues consists of that portion of the Commonwealth's vehicle registration fee revenues (the "***Registration Fee Revenues***") allocated by statute to the Commission or the holders of any of the Commission's Registration Fee Revenue Bonds (the "***Registration Fee Revenue Bonds***"), of which $368,895,000 aggregate principal amount is outstanding as of the date of this Official Statement, which includes a direct purchase obligation in the aggregate principal amount of $231,425,000. See "CERTAIN FINANCIAL INFORMATION – Direct Purchase Obligations" herein for a summary of direct purchase obligations of the Commission. The Registration Fee Revenue Bonds, the proceeds of which were spent on portions of the Mon/Fayette Expressway and the Southern Beltway, are secured by Registration Fee Revenues. Registration Fee Revenue Bonds are to be paid solely from the Registration Fee Revenues. **The Registration Fee Revenues are not pledged to secure any Senior Indenture Obligations, Subordinate Revenue Indenture Obligations or the Oil Franchise Tax Revenue Bonds.**

Direct Purchase Obligations

Below is a summary of direct purchase obligations of the Commission outstanding as of the date of this Official Statement. These transactions may include terms and provisions, including but not limited to covenants and events of default, that are different from those contained in the Senior Indenture, Subordinate Indenture, and/or the Registration Fee Indenture. Copies of certain agreements relating to these transactions have been filed on, and may be viewed on, the Municipal Securities Rulemaking Board - Electronic Municipal Market Access (EMMA) website as referenced below.

EB-5 Loans (Senior)

A $200,000,000 draw-down loan authorized under the Immigrant Investor Program (known as the EB-5 visa program) administered by the U.S. Citizenship and Immigration Services is a parity obligation with Turnpike Revenue Bonds and other parity obligations issued under the Senior Indenture. The entire $200,000,000 has been drawn.

An up to $800,000,000 draw-down loan is authorized through the EB-5 visa program. $95,000,000 has been drawn to date, leaving $705,000,000 currently not drawn. Such loans are and, when advanced, will be parity obligations with Turnpike Revenue Bonds and other parity obligations issued under the Senior Indenture.

Additional information regarding the forgoing loans can be found at:

https://emma.msrb.org/ES1058248-ES826410-ES1227554.pdf[10]
https://emma.msrb.org/ES1058220-ES826391-ES1227532.pdf[11]
https://emma.msrb.org/ES1058229-ES826390-ES1227529.pdf[12]
https://emma.msrb.org/ ER1284410.pdf[13]
https://emma.msrb.org/ER1177947-ER920807-ER1321434.pdf[14]

See also "CERTAIN FINANCIAL INFORMATION – Revenue Sources of the Commission – Toll Revenues" and "CERTAIN FINANCIAL INFORMATION – Revenue Sources of the Commission – Future Financing Considerations" herein.

First Series of 2017 Bonds (Subordinate)

Turnpike Subordinate Revenue Refunding Bonds, First Series of 2017 (the "***First Series of 2017 Bonds***"), of which $291,850,000 aggregate principal amount is outstanding as of the date of this Official Statement, were issued under the Subordinate Indenture and are parity obligations with certain Subordinate Revenue Bonds and other parity obligations issued under the Subordinate Indenture. Additional information regarding the First Series of 2017 Bonds can be found at: https://emma.msrb.org/ES1055711-ER826006-ES1225682.pdf.[15]

2005 Registration Fee Bonds (Registration Fee)

Registration Fee Revenue Bonds, Series B, C, and D of 2005 (the "***2005 Registration Fee Bonds***"), outstanding in the aggregate principal amount of $231,425,000 as of the date of this Official Statement, were converted to a direct purchase transaction in October 2015. The 2005 Registration Fee Bonds were issued under a separate Indenture, as subsequently amended and supplemented, securing Registration Fee Revenue Bonds and are parity obligations with Registration Fee Revenue Bonds and any other parity obligations issued under such Indenture. In July 2018, necessary amendments were made to the bond documents to allow for the modification of the interest rate. In February 2019, additional modifications were made to the bond documents to allow for the modification of the interest rate. In March 2019, the Commission cash defeased a portion of the 2005 Registration Fee Bonds. Additional information regarding the 2005

10 The information contained on such website link is not incorporated by reference in this Appendix A.

11 The information contained on such website link is not incorporated by reference in this Appendix A.

12 The information contained on such website link is not incorporated by reference in this Appendix A.

13 The information contained on such website link is not incorporated by reference in this Appendix A.

14 The information contained on such website link is not incorporated by reference in this Appendix A.

15 The information contained on such website link is not incorporated by reference in this Appendix A.

Registration Fee Bonds can be found at: https://emma.msrb.org/EP1026791-EP795538-EP1197062.pdf[16], at https://emma.msrb.org/ES1188445-ES928832-ES1329795.pdf[17] and at https://emma.msrb.org/MarketActivity/ContinuingDisclosureDetails/ES965483.

Toll Schedule and Rates

The current System generally employs a closed or ticket system method for toll collection. Tolls are determined on the basis of the length of the trip and vehicle class. There are nine vehicle classes determined either by axles or, in the case of commercial vehicles, by axles and weight. Historically, all drivers were issued a ticket upon entering the System and were required to surrender the ticket and pay the appropriate toll upon exiting. Electronic toll collection methods, however, have been implemented throughout the System. See “THE TURNPIKE SYSTEM – E-ZPass Lanes” herein.

The Turnpike is the only remaining road in the United States that still establishes tolls based on vehicle weight. As part of its efforts to continue to modernize its operations, the Commission is using an upgraded vehicle classification system at two tolling locations. In Spring 2018, the Commission began utilizing an “axle/height” system that calculates tolls based on the vehicle’s height plus the number of axles. It is being utilized in eastern Pennsylvania at the Clarks Summit and Keyser Avenue tolling points on the Northeastern Extension and also in western Pennsylvania on the Finlay Connector. The axle/height classification system will be phased in over time as it is expected to be the most accurate, predictable and efficient system for customers. It is also expected to be less expensive for the Commission to maintain and will be consistent with systems currently being operated in neighboring states.

Between 1957 and 2008, the Commission implemented only five revisions in its toll schedule, effective on September 1, 1969, August 1, 1978, January 2, 1987, June 1, 1991 and August 1, 2004. On August 1, 2004, Turnpike System tolls increased by 1.8 cents per mile for passenger vehicles from 4.1 to 5.9 cents per mile. Commercial vehicles had an average increase of 5.3 cents per mile. Such toll increase was consistent with the rate of inflation over the 13 years since the Commission’s prior toll increase in 1991. During such time, all incremental revenue generated by such toll increase was used to fund capital improvements to the System’s roads, tunnels and other upgrades.

Since 2008, the Commission has implemented rate increases as follows:

- On July 22, 2008, the Commission approved a toll increase in the amount of 25% (except for the Southern Beltway and the Mon/Fayette Expressway) which became effective on January 4, 2009, with the expectation that it would implement annual increases thereafter.

16 The information contained on such website link is not incorporated by reference in this Appendix A.

17 The information contained on such website link is not incorporated by reference in this Appendix A.

- On August 18, 2009, the Commission approved a toll increase in the amount of 3% (except for the Southern Beltway) which became effective on January 3, 2010.

- On July 13, 2010, the Commission adopted several revenue enhancement measures that took effect on January 2, 2011. For E-ZPass users, tolls increased by 3%. For cash customers, tolls increased by 10% (rounded to the nearest $0.05). (Tolls on the Southern Beltway were not increased.) Annual fees for use of E-ZPass transponders increased from $3 per transponder to $6 per transponder. Finally, the commercial discount program, which provided for tiered discounts of 10%, 15% and 20% off published toll rates depending on total monthly fares, was adjusted to provide tiered discounts of 5%, 10% and 15%. These revenue enhancements were used to provide funds for payments under the Amended Funding Agreement and other Act 44 purposes, including funding of the Commission's capital expenditure program and normal operating expenditures.

- On July 19, 2011, the Commission approved a toll increase (except on the Southern Beltway) which took effect on January 2, 2012. E-ZPass users did not see a toll increase, and cash customers saw an increase of 10%. In addition, commercial discounts were reduced. The 15% volume discount was eliminated and the remaining discounts were set at a 5% discount for $5,000-$10,000 in monthly tolls and a 10% discount for more than $10,000 in monthly tolls. In addition, the Commission also approved approximate overall toll rate increases that among E-ZPass users and cash customers would average 3% annually for each of the 2013 and 2014 calendar years.

- At meetings on July 18, 2012 and September 4, 2012, the Commission approved toll increases which became effective on January 6, 2013. Tolls for cash customers generally increased by 10%, except for the Southern Beltway, and tolls for E-ZPass users increased by 2%. On the Southern Beltway, cash tolls for all classes (which had never increased since its opening in 2006) increased by 50%, and E-ZPass rates increased by 25%. Annual fees for non-commercial use of E-ZPass transponders decreased from $6 per transponder to $3 per transponder due to lower cost from the supplier. Finally, the commercial discount program was further adjusted. The 10% discount was eliminated and the minimum toll amount for discount eligibility increased from $5,000 to $10,000. The revised discount program provided for a 5% discount on total monthly fares of $10,000 or more.

- At its meeting on July 16, 2013, the Commission clarified its previously approved toll increase which was to occur in January 2014. The Commission approved a differential to the toll increases which became effective on January 5, 2014. Tolls (except on the Southern Beltway) increased by 12% for cash customers and by 2% for E-ZPass users. The toll increase differential kept the overall toll revenue increase to approximately 3%, in keeping with previous approvals of the Commission. Additionally, the remaining commercial discount program (5% volume discount on total monthly fares of $10,000 or more) was approved for elimination, effective January 5, 2014.

- At its meeting on September 20, 2013, the Commission partially reinstated the commercial discount to provide a three percent (3%) discount to Turnpike System commercial E-ZPass account holders that expend $20,000 or more in tolls per month on the Turnpike System.

- On June 17, 2014, the Commission approved a toll increase (except for the Southern Beltway) in the amount of 5% for both cash and E-ZPass users effective January 4, 2015.

- On July 7, 2015, the Commission approved a toll increase in the amount of 6% for both cash and E-ZPass users effective January 3, 2016.

- On July 19, 2016, the Commission approved a toll increase in the amount of 6% for both cash and E-ZPass users effective January 2017.

- On July 18, 2017, the Commission approved a toll increase in the amount of 6% for both cash and E-ZPass users effective January 2018 and apply to all portions of the Turnpike System, except as follows: (i) no toll increase for Delaware River Bridge E-ZPass and Toll-By-Plate customers, (ii) Clarks Summit & Keyser Avenue toll rates will increase in April 2018 with the conversion of these locations to Cashless Tolling, and (iii) Findlay Connector toll rates will increase in April 2018 or at the time of conversion to Cashless Tolling if different than April 2018, and will be as follows: (x) E-ZPass - $1.00 and (y) Toll-By-Plate - $1.50.

- On July 3, 2018, the Commission approved a toll increase in the amount of 6% for both cash and E-ZPass users which became effective January 2019.

- The full System toll schedules for the Turnpike Mainline and various extensions can be viewed at https://www.paturnpike.com/toll/tollmilage.aspx.[18]

[Remainder of Page Intentionally Left Blank]

[18] The information contained on such website link is not incorporated by reference in this Appendix

Subject to the detailed description above, here is a chart summarizing the fundamental rate increases since 2009:

Toll Increase History Since 2009		
Effective	Percent Increase	
Date	Cash	EZPass
1/4/2009	25%	25%
1/3/2010	3%	3%
1/2/2011	10%	3%
1/2/2012	10%	0%
1/6/2013	10%	2%
1/5/2014	12%	2%
1/5/2015	5%	5%
1/3/2016	6%	6%
1/8/2017	6%	6%
1/2/2018	6%	6%
1/7/2019	6%	6%

Unaudited traffic and revenue data for Fiscal Year ended May 31, 2019 indicates a 10.9% increase in net fare revenue, with a 2.0% increase in traffic volume, as compared to data for Fiscal Year ended May 31, 2018.

[Remainder of Page Intentionally Left Blank]

The following Table I illustrates the tolls and per mile rates applicable to each vehicle class for a trip on the Turnpike Mainline from Interchange 1 through Interchange 353 following the toll increase effective January 7, 2019:

TABLE I
Current Tolls and Per Mile Rates for Mainline
Roadway East - West Complete Trip
Neshaminy Falls[1] - Warrendale (Ticket System)

Vehicle Toll Class	Gross Vehicle Weight (Thousand Pound)	Toll Rate Cash Effective 1/2019	Per Mile Cash Rate	Toll Rate EZ-Pass Effective 1/2019	Per Mile EZ-Pass Rate
1	1-7	$ 50.40	$ 0.156	$ 36.20	$ 0.112
2	7-15	74.10	0.229	53.10	0.164
3	15-19	89.50	0.277	64.00	0.198
4	19-30	107.30	0.332	76.90	0.238
5	30-45	150.40	0.466	108.00	0.334
6	45-62	188.60	0.584	135.40	0.419
7	62-80	270.00	0.836	193.90	0.600
8	80-100	353.90	1.096	254.30	0.787
9	Over 100	1900.80	6.027	1399.20	4.332

[1] Effective January 3, 2016 the eastern-most terminus of the ticket system was moved about six miles to the west from the former Delaware River Bridge toll plaza to the new Neshaminy Falls toll plaza. As a result of this change, Table I may differ from prior versions issued by the Commission.

Notes:

The above rates represent an "East West" trip for the ticket toll system between the Neshaminy Falls (#353) interchange and Warrendale (#30). The 30-mile Gateway to Warrendale roadway between Warrendale and the Ohio Turnpike has a barrier toll at the Gateway Mainline interchange (#2). For purposes of the Senior Indenture, the Mainline is the entire length of the roadway between Ohio and the Delaware River Bridge. The toll on the Gateway connector is payable only when traveling eastbound and is standard for all vehicles of a class, regardless of distance traveled. ***The cash rate as of January 6, 2019 is $7.90 for two axles, $15.60 for three axles, $23.30 for four axles, $30.80 for five axles and $38.40 for six axles. The E-ZPass rate is $5.50 for two axles, $11.00 for three axles, $16.50 for four axles, $22.00 for five axles, and $27.50 for six axles.***

Beginning January 3, 2016 the Commission has implemented a new "cashless tolling" system from the Delaware River Bridge to the new Neshaminy Falls toll plaza. The toll on the Delaware River Bridge to Neshaminy Falls portion is a one-way toll westbound only, and is collected by a new "toll-by-plate" system or by E-ZPass. ***The toll-by-plate rate as of January 6, 2019 is $7.20 for two axles, $14.40 for three axles, $21.50 for four axles, $28.70 for five axles and $35.80 for six axles. The E-ZPass rate is $5.30 for two axles, $10.60 for three axles, $15.90 for four axles, $21.20 for five axles, and $26.50 for six axles.*** Permits are required for all over-dimensional loads.

Act 44 requires the Commission to fix toll rates such that revenues from tolls and other sources to the Commission are sufficient to pay the cost of the System's operation, construction, expansion and maintenance, all Commission obligations and interest thereon, sinking fund requirements of the Commission, other requirements in any trust indentures, notes or resolutions, and payments to PennDOT under the Amended Funding Agreement.

Five-Year Financial History

The following Table II summarizes certain operating and revenue information with respect to the System for the Fiscal Years from 2015 to 2019. The following Table III summarizes certain financial information with respect to the System for the Fiscal Years from 2014 to 2018. This information is derived from the Commission's regularly prepared books and records. The financial information presented in Table III is a combination of cash basis financial statements with certain accruals included. **Such information is not presented in accordance with generally accepted accounting principles and has not been audited.**

Tables II and III should be read in conjunction with the financial statements prepared in accordance with generally accepted accounting principles and related notes included in "APPENDIX B – AUDITED 2018 AND 2017 FINANCIAL STATEMENTS" of this Official Statement (the "***Financial Statements***").

The Commission currently makes certain operating and financial information, including its audited annual financial statements and information corresponding to the information set forth below in Tables II and III, available through the Municipal Securities Rulemaking Board - Electronic Municipal Market Access (http://www.emma.msrb.org)[19] pursuant to its undertakings in accordance with Rule 15c2-12 promulgated under the Securities Exchange Act of 1934, as amended. Information to be provided pursuant to the Commission's undertaking in connection with the bonds offered pursuant to this Official Statement is described in the forepart of this Official Statement under the caption "CONTINUING DISCLOSURE."

[Remainder of Page Intentionally Left Blank]

19 The information contained on such website link is not incorporated by reference in this Appendix A.

TABLE II

Number of Vehicle Transactions and Fare Revenues – Summarized by Fare Classification

(in thousands)

	Fiscal Year Ended May 31				
	2015 ^	**2016 ^**	**2017 ^**	**2018 ^**	**2019 ****
Number of Vehicles Transactions:*					
Passenger	171,243	177,317	179,190	180,167	183,030
Commercial	27,295	28,591	29,064	30,177	31,582
Total	198,538	205,908	208,254	210,344	214,612
Fare Revenue:					
Passenger	$533,054	$588,295	$638,787	$678,720	$740,206
Commercial	401,198	443,325	476,189	524,438	595,180
Total	$934,252	$1,031,620	$1,114,976	$1,203,158	$1,335,386
Discount	-2,106	-1,505	-3,915	-6,552	-8,090
Net Fare Revenues	$932,146	$1,030,115	$1,111,061	$1,196,606	$1,327,296

* number of vehicles is unaudited.

** Unaudited.

^ Restated Traffic Volumes for both revenue and non-revenue transactions. Prior to this fiscal year, the Commission only reported traffic volume classified as revenue transactions.

[Remainder of Page Intentionally Left Blank]

TABLE III

Summary of System Revenues and Operating Expenditures

Before Interest and Other Charges (1)

(000's Omitted)

	Fiscal Year Ended May 31,					Nine months ended February 28 *	
	2014	2015	2016	2017	2018	FY 2018	FY 2019
Revenues							
Net Fare Revenues	$861,846	$932,146	$1,030,115	$1,111,061	$1,196,606	$882,580	973,491
Concession Revenues	3,554	3,722	3,932	4,100	3,911	3,106	3,615
Senior Interest Income	11,482	9,459	9,511	11,664	13,808	10,376	12,419
Subordinate Interest Income	3,237	3,384	3,975	4,314	4,948	3,831	3,951
MLF Enhanced Interest Income	198	165	190	248	530	405	370
Miscellaneous	15,355	13,867	18,644	19,235	757	(709)	4,598
Total Revenues	$895,672	$962,743	$1,066,367	1,150,622	1,220,560	$899,589	998,444
Operating Expenditures (2)							
General & Administrative	$39,983	$39,541	$40,725	$47,861	$42,548	$35,608	37,884
Traffic Engineering and Operations	3,966	3,986	4,654	3,813	3,244	2,496	2,514
Service Centers	22,448	24,128	28,304	32,304	35,556	27,147	29,265
Employee Benefits	83,810	98,475	107,646	113,986	98,515	86,458	83,660
Toll Collection	59,139	60,429	59,387	60,112	59,669	44,290	43,488
Normal Maintenance	74,789	73,792	64,545	66,191	73,429	53,971	55,358
Facilities and Energy Mgmt. Operations	9,850	10,957	10,886	11,266	12,080	8,403	8,112
Turnpike Patrol	39,818	41,234	46,161	47,223	48,807	36,584	36,307
Total Operating Expenditures	$333,803	$352,542	$362,308	$382,756	$373,848	$294,957	296,588
Revenues less Operating Expenditures	$561,869	$610,201	$704,059	$767,866	$846,712	$604,632	701,856
Senior Annual Debt Service Requirement	$158,995	$170,155	$215,019	$237,010	$379,042		
Coverage Ratio (3)	3.51	3.57	3.26	3.22	2.22 ◊		
Annual Subordinate Debt Service Requirement	$196,475	$205,627	$222,064	$233,804	$256,817		
Coverage Ratio (4)	1.58	1.62	1.61	1.63	1.33 ◊		
Annual MLF Enhanced Debt Service Requiremen	$29,632	$36,027	$36,525	$43,348	$37,938		
Coverage Ratio (5)	1.46	1.48	1.49	1.49	1.26 ◊		

(1) This summary of revenues and operating expenditures is not intended to present results of operations in conformity with generally accepted accounting principles. Debt service is net of capital interest and receipt of Federal Subsidy.

(2) Certain expenditure amounts for fiscal years 2014 and 2015 have been reclassified between General & Administrative and Toll Collection. The Commission had a recent reorganization that combined the Fare Collection and ETC departments and created a "Toll Collection" functional area. The reclassifications were necessary so prior year numbers were presented in a manner that is consistent with the modified reporting beginning in FY 2016.

(3) Calculated using Senior Interest Income

(4) Calculated using Senior and Subordinate Interest Income

(5) Calculated using Senior, Subordinate and MLFE Interest Income

◊ FY 2018 debt service coverage ratios reflect the voluntary retirement at maturity of $100 million of Senior floating rate notes that were originally expected to be refunded. Had the PTC chosen to refund the $100 million in notes FY 2018 Senior, Subordinate and MLF Enhanced debt service coverage ratios would have been 3.04, 1.58 and 1.48 respectively.

*FY 2019 Unaudited.

Budget Process

The Commission's Finance and Administration Department develops preliminary budget information for all Commission departments. This information is provided to each of the respective departments for their review and to enable them to make any proposed revisions for their budget requests. The information is then returned to the Finance and Administration Department and a Commission wide preliminary budget is prepared. This budget is reviewed by senior management and, in cooperation with the respective departments, revisions are made when necessary to conform to the annual financial plan. The final recommended budget is then presented to the Board of Commissioners for formal approval.

In addition, Act 44 requires the Commission to prepare and submit an annual financial plan to the Secretary of the Budget of the Commonwealth no later than June 1 of each year for the ensuing Fiscal Year, describing its proposed operating and capital expenditures, borrowings, liquidity and other financial management covenants and policies, estimated toll rates and all other revenues and expenses. The purpose of the annual financial plan is to demonstrate that the Commission's operation in accordance with such plan can be reasonably anticipated to generate unencumbered funds sufficient to make all payments due to PennDOT under Act 44, Act 89 and the Amended Funding Agreement in the upcoming year after all other Commission obligations and interest thereon, sinking fund requirements of the Commission, and other requirements in any trust indenture, notes or resolutions have been met. Any deviations and the causes therefor in prior year plans must be explained. The Commission delivered to the Secretary of the Budget its Act 44 Financial Plan on June 1, 2018. See "THE COMMISSION – Enabling Acts – *Rules Relating to Governance and Accountability Under the Enabling Acts*" above.

Performance Audit by the Auditor General

The Enabling Acts require the Auditor General of the Commonwealth to conduct an audit of the accounts of the Commission and to review its performance, procedures, operating budget, capital budget and debt every two years. The Act of October 23, 1988, P. L. 1059, No. 122 ("***Act 122***") also requires the Auditor General to conduct a financial audit and a compliance audit of the Commission every four years.

On March 18, 2019, Auditor General Eugene A. DePasquale issued a final report presenting the results of the statutorily required financial and performance audits of the Commission under Act 44 and Act 122 (the "***March 2019 Performance Audit***"). The financial portion of the audit covered the period from June 1, 2015 to May 31, 2017, and the performance portion of the audit covered the period from June 1, 2015 to January 30, 2019. The Auditor General's office did not conduct its own financial audit but reviewed audits and supporting documentation of the independent firm that audits the Commission's financial statements annually, including working papers for the two Fiscal Years ended May 31, 2016 through May 31, 2017.

The performance audit had two objectives: (1) to review and evaluate the process of selecting and awarding construction contracts; and (2) to determine if the Commission's revenue collections are meeting projected toll revenue expectations in order to meet its payment obligations and planned capital improvement projects. The performance audit presented two findings and six recommendations with four directed to the Commission and two to the Pennsylvania General Assembly.

The audit report included findings with respect to the following areas:

- The Commission's ability to raise toll revenue to cover Act 44/89 payments to PennDOT and expenditures for capital projects remains potentially unsustainable; and

- The Commission awarded construction contracts and engineering consultant agreements in accordance with its policies and procedures.

The audit report also included recommendations to the Commission and the General Assembly.

The audit report recommended that the Commission should:

- Prioritize only capital projects requiring immediate attention;

- Ensure that traffic projections are conservative and realistic;

- Evaluate and scrutinize sources of revenue and operating expenses; and

- Evaluate ways to increase passenger car and commercial use of the Turnpike.

In addition, the Auditor General’s Performance Audit recommended that the Pennsylvania General Assembly immediately re-evaluate Acts 44/89 and consider drafting and enacting new legislation to closely focus on interim alternative revenue sources. New legislation could help to ensure the current debt burden placed on the Commission is considerably mitigated for the continued viability of the Commission and the toll system in Pennsylvania. The Auditor General also recommended that the General Assembly refrain from increasing the $50 million annual payment scheduled to begin during the fiscal year ending May 31, 2023.

The full text of the Department of Auditor General’s final report and the Commission’s response may be found on the Commission’s website at: https://www.paturnpike.com/pdfs/business/finance/AuditorGeneralsPeformanceAuditMar2019.pdf

The March 2019 Performance Audit followed a prior Performance Audit by the Auditor General issued on September 2, 2016 presenting the results of his quadrennial audit of the Commission under Act 44 and Act 122. The financial portion of the audit covered the period from June 1, 2010 to May 31, 2015, and the performance portion of the audit covered the period from June 1, 2014 to July 11, 2016. The Auditor General’s office did not conduct its own financial audit but reviewed audits and supporting documentation of the independent firm that audits the Commission’s financial statements annually, including working papers for the five Fiscal Years ended May 31, 2011 through May 31, 2015.

The audit report includes new findings with respect to the following areas:

- The Commission's ability to raise toll revenue to cover Act 44/89 payments to PennDOT and expenditures for capital projects is potentially unsustainable;
- Rapid increases in toll violations with little enforcement power may lead to additional financial problems for the Commission; and
- Compliance with Commission policies and procedures in connection with services and supplies contracts; compliance with Commonwealth's Procurement Code in connection with construction contracts.

The audit report also includes recommendations relating to prior audit findings with respect to the following areas:

- Non-revenue use of the Turnpike System by Commission employees;
- Non-revenue use of the Turnpike System by nearly 5,000 consultants, contractors, and other state government officials;
- Continued or expanded monitoring, review and inspection of the Turnpike System's tunnels; and
- Reimbursement of the travel and other expenses of Commissioners.

On August 18, 2016, in response to the release by the Auditor General of a draft report, the Commission's Chief Executive Officer responded by letter to the Auditor General, addressing the proposed recommendations of the Department of Auditor General. The full text of the Department of Auditor General's final report and the Commission's response may be found on the Commission's website at:

https://www.paturnpike.com/pdfs/business/finance/AuditorGeneralsPerformanceAuditSept2016.pdf.[20]

Financial Policies and Guidelines

The Commission's Investment Policy and Guidelines, adopted on June 6, 1997 and amended from time to time thereafter (the "***Investment Policy***"), sets forth the purpose, objectives and investment guidelines for eligible securities for the investment of financial assets of the Commission. Eligible securities include those that are consistent with the Senior Indenture. For a discussion of the Commission's concentration of credit risk to particular issuers, see Note 4 to the Financial Statements.

The Investment Policy provides that appropriate benchmarks shall be developed for the various funds invested by the Commission and that the returns of the Commission's individual

20 The information contained on such website link is not incorporated by reference in this Appendix A.

portfolio segments are to be compared to such benchmarks. Pursuant to the Investment Policy, the Commission's Investment Policy Committee must prepare an investment report for the Commissioners on a quarterly basis, including a management summary that provides a clear picture of the status of the current investment portfolio and transactions made over the latest reporting period. The report is to include investment performance and demonstrate conformity with the Investment Policy.

The Commission adopted three additional financial policies on April 20, 2004: a Liquidity Standard Policy, a Debt Management Policy and an Interest Rate Swap Management Policy (the "***Swap Policy***"). These financial management policies were developed in recognition of the increasing financial sophistication of the Commission with respect to its debt structure and to provide guidance governing the issuance, management, ongoing evaluation and reporting of all debt obligations.

The Liquidity Standard Policy requires that the Commission maintain sufficient year-end fund balances to ensure levels of uncommitted reserves necessary to secure and protect its long-term debt and other financial obligations. Under this policy, the Commission budgets and maintains cumulative fund balances, including balances in the Reserve Maintenance Fund and the General Reserve Fund, equal to the greater of maximum annual debt service on those bonds not secured by a debt service reserve fund or 10% of annual budgeted revenues.

The Debt Management Policy establishes parameters and provides guidance governing the issuance and management of Commission debt. It addresses such issues as usage of unhedged variable rate debt, rate covenants and limitations on additional bonds and disclosure. Notwithstanding the rate covenants in the Senior Indenture, the Commission's Debt Management Policy requires the Commission's management to maintain 2.00 debt service coverage on the Turnpike Revenue Bonds, 1.30 debt service coverage on the Subordinate Revenue Bonds and 1.20 debt service coverage on the Special Revenue Bonds. For a discussion of the rate covenant under the Senior Indenture, see "SECURITY FOR THE 2019A SUBORDINATE BONDS – Rate Covenant" in the forepart of this Official Statement. The Commission's Debt Management Policy is available on the Commission's website at https://www.paturnpike.com/pdfs/business/Debt%20Management%20Policy%20Letter.pdf.[21]

Currently, approximately 89% of the Commission's outstanding debt is fixed rate, seven percent is synthetic fixed and four percent is unhedged variable rate.

The Commission's Swap Policy establishes guidelines for the use and management of all interest rate management agreements, including, but not limited to, interest rate swaps, swaptions, caps, collars and floors (collectively, "***Swaps***") incurred in connection with the incurrence of debt. The Commission's Swap Policy was amended in October 2018 to reflect current regulations and best practices in the derivatives industry, particularly with respect to the selection requirements and on-going monitoring related to swap advisors.

The Swap Policy authorizes the Commission to use Swaps to hedge interest rate movement, basis risk and other risks, to lock in a fixed rate or, alternatively, to create synthetic variable rate

21 The information contained on such website link is not incorporated by reference in this Appendix A.

debt. Swaps may also be used to produce interest rate savings, limit or hedge variable rate payments, alter the pattern of debt service payments, manage exposure to changing market conditions in advance of anticipated bond issues (through the use of anticipatory hedging instruments) or for asset/liability matching purposes. Key elements of the Swap Policy include the following:

Swap Counterparties – Credit Criteria. The Commission will make its best efforts to work with qualified Swap counterparties that have a general credit rating of: (i) at least "A3" or "A-" by two of the nationally recognized rating agencies and not rated lower than "A3" or "A" by any nationally recognized rating agency, or (ii) have a "non-terminating" "AAA" subsidiary as rated by at least one nationally recognized credit rating agency.

Term and Notional Amount. For Swaps tied to an issued series of bonds, the term of the Swap agreement shall not extend beyond the final maturity date of the related bonds. The total net notional amount of all Swaps related to a bond issue should not exceed the aggregate principal amount of outstanding bonds. In calculating the net notional amount, netting credit shall be given to any Swaps that offset each other for a specific bond transaction.

Security and Source of Repayment. The Commission may use the same security and source of repayment (pledged revenues) for Swaps as is used for bonds that are hedged by the Swap, if any, but shall consider the economic costs and benefits of subordinating the Commission's payments and/or termination payment under the Swap. The Commission shall consult with Bond Counsel regarding the legal requirements associated with making the payments under the Swap on a parity or non-parity basis with outstanding Commission debt.

Prohibited Agreements. The Commission will not use Swaps that:

- Are speculative or create extraordinary leverage as risk;
- Lack adequate liquidity to terminate without incurring a significant bid/ask spread; or
- Provide insufficient price transparency to allow reasonable valuation.

Annual Swap Report. The Commission's Assistant Chief Financial Officer for Financial Management, in consultation with the Commission's Swap Advisor and legal counsel, will evaluate the risks associated with outstanding Swaps at least annually and provide to the senior executives and the Commissioners a written report of the findings based upon criteria set forth in the Swap Policy.

Disclosure and Financial Reporting. The Commission will ensure that there is full and complete disclosure of all Swaps to rating agencies and in disclosure documents. Disclosure in marketing documents, including bond offering documents, shall provide a clear summary of the special risks involved with Swaps and any potential exposure to interest rate volatility or unusually large and rapid changes in market value. With respect to its financial statements, the Commission will adhere to the guidelines for the financial reporting of Swaps, as set forth by the Governmental Accounting Standards Board ("***GASB***"), Commodity Futures Trading Commission, or other applicable regulatory agencies.

The Commission has interest rate exchange agreements with respect to its Turnpike Revenue Bonds, Series 2009A, 2010B, 2013B, 2014B, 2018A, 2018B and 2019R2. In addition, the Commission has interest rate exchange agreements with respect to its Subordinate Revenue Bonds Series 2017R-1, Registration Fee Revenue Bonds, Series 2005, and Oil Franchise Tax Revenue Bonds, Series 2009B and 2016A.

Interest Rate Exchange Agreements
31-May-19

Lien	Current Notional	Mark to Market Valuation
Senior Bonds	942,280,000	(146,860,712)
Subordinate Bonds	291,850,000	(5,572,613)
Motor Vehicle Registration	231,425,000	(83,394,062)
Oil Franchise Tax	320,000,000	1,020,202

See Note 4, Note 7 and Note 9 to the Financial Statements for additional information relating to the foregoing. The Commission does not have any interest rate exchange agreements associated with its Special Revenue Bonds.

There are a number of risks associated with Swaps that could affect the value of the Swaps, the ability of the Commission to accomplish its objectives in entering into the Swaps and the ability of the Commission to meet its obligations under the Swaps. These risks include, among others, the following: counterparty risk – the failure of the counterparty to make required payments; credit risk – the occurrence of an event modifying the credit rating of the Commission or its counterparty; termination risk – the need to terminate the transaction in a market that dictates a termination payment by the Commission; tax risk – the risk created by potential tax events that could affect Swap payments; and basis risk – the mismatch between actual variable rate debt service and variable rate indices used to determine Swap payments.

In addition, on July 27, 2017, the Financial Conduct Authority announced that it will no longer persuade or compel banks to submit rates for the calculation of LIBOR rates after 2021 (the "***FCA Announcement***"). Many of the Commission's Swaps use a LIBOR based rate as a reference rate for determining payments to be received or payments to be made thereunder. It is not possible to predict the effect of the FCA Announcement, any changes in the methods pursuant to which LIBOR rates are determined, or any other reforms to LIBOR that may be enacted, any of which may adversely affect the determination of LIBOR rates or result in the phasing out of LIBOR as a reference rate. Any such effects could result in a sudden or prolonged increase or decrease in reported LIBOR rates, or result in the replacement of LIBOR with other reference rates, and could have a negative impact on the market value of the Commission's swaps and the payment obligations of the Commission thereunder.

The Commission actively monitors the degree of risk and exposure associated with the Swaps to which it is a party but can offer no assurances that compliance with its Swap Policy will prevent the Commission from suffering adverse financial consequences as a result of these transactions.

The Commission has adopted additional financial policies related to post issuance compliance procedures and continuing disclosure.

The Tax-Exempt Debt, Build America Bonds and Other Tax-Advantaged Debt Post-Issuance Compliance Policies and Procedures (the "***Post Issuance Compliance Policy***") became effective on December 21, 2011 and implemented various policies and procedures to ensure that the Commission complies with all applicable federal tax rules related to its tax-exempt debt, Build America Bonds and other tax-advantaged debt issuances. Among other items, the policy requires compliance with all applicable federal tax documentation and filing requirements, yield restriction limitations, arbitrage rebate requirements, use of proceeds and financed projects limitations and recordkeeping requirements.

The Continuing Disclosure Policy was adopted by the Commission on February 2, 2016 and applies to all publicly offered Commission municipal securities that are subject to federal securities laws and/or continuing disclosure agreements. The policy requires the Commission to comply with all applicable securities laws, satisfy in a timely manner all contractual obligations undertaken pursuant to continuing disclosure agreements or otherwise, and to adhere to best practices for disclosure. The policy also requires the development, establishment and implementation of written procedures necessary to implement the Continuing Disclosure Policy, identifies key Commission participants responsible for disclosure, defines the role of Commission Disclosure Counsel and addresses training and document retention related to disclosure obligations.

Copies of the Commission's Investment Policy, Liquidity Standard Policy, Debt Management Policy, Swap Policy, Post Issuance Compliance Policy and Continuing Disclosure Policy can be found on the Commission's website at: https://www.paturnpike.com/pdfs/about/Policy_Letters.pdf.[22]

The policies of the Commission described above may be revised or amended at any time at the discretion of the Commission.

Future Financing Considerations

The Commission may issue additional bonds under the Senior Indenture and the Subordinate Indenture (in addition to the 2019A Subordinate Bonds).

In addition, the Commission may, from time to time, issue other notes and bonds payable from such sources as may be available so long as the Tolls, the Oil Franchise Tax Revenues securing the Oil Franchise Tax Revenue Bonds or the Registration Fee Revenues securing the Registration Fee Revenue Bonds are not pledged to such other notes and bonds or, if pledged, are pledged on a subordinate basis. The Commission anticipates that it will borrow substantial additional funds for the purpose of funding capital expenditures for the System pursuant to the Capital Plan. Borrowings for the Capital Plan are expected to be undertaken principally under the

22 The information contained on such website link is not incorporated by reference in this Appendix A.

Senior Indenture. In addition, pursuant to Act 89, the Commission anticipates that it will borrow substantial additional funds for purposes of funding payments under Act 44, Act 89 and the Amended Funding Agreement through Fiscal Year 2021-2022. Such borrowings are expected to be undertaken principally under the Subordinate Indenture. In addition, the Commission may from time to time increase toll rates to meet the debt, capital and operational obligations of the Commission. The most recent toll increase that has gone into effect was on January 6, 2019. See "CERTAIN FINANCIAL INFORMATION – Toll Schedule and Rates" above for further information.

The Commission's Act 44 Financial Plan anticipates multiple funding sources will be utilized to support the estimated $5.74 billion in net costs associated with the Capital Plan. These funding sources will include the use of current revenues (pay-as-you-go), proceeds of Turnpike Revenue Bonds and proceeds of loans issued through the Immigrant Investor Program (known as the EB-5 visa program) administered by the U.S. Citizenship and Immigration Services. Additionally, the Commission previously entered into a loan agreement dated August 4, 2016, (see http://emma.msrb.org/ES821235-ES644377-ES1039543.pdf [23] for a copy of such agreement) pursuant to which the Commission expects to borrow up to $800 million (in up to sixteen tranches during the years 2017 through 2024) through the Immigrant Investor Program, the proceeds of which would be used to fund costs of capital projects included in the Commission's Capital Plan. Any such debt issued under the Immigrant Investor Program (and the subsequent refinancing thereof) is accounted for in the Commission's current Act 44 Financial Plan and would be issued under the Senior Indenture on parity with the Turnpike Revenue Bonds. In February 2018, the Commission drew down the first tranche of $800 million in EB-5 loans for $50 million; and in November 2018, the Commission drew down another $45 million. See "CERTAIN FINANCIAL INFORMATION - Direct Purchase Obligations – *EB-5 Loans (Senior)"* above for further information.

The Commission expects to issue one or more additional series of bonds under the Subordinate Indenture, during Fiscal Year 2020, to finance all or a portion of its quarterly payments to PennDOT pursuant to the Amended Funding Agreement under the Enabling Acts (including the 2019A Subordinate Bonds). (See "THE COMMISSION—Enabling Acts – *Issuance of Bonds; Commission Payments*" above.) In addition, the Commission regularly evaluates market conditions with respect to the possible refunding of its outstanding Turnpike Revenue Bonds, Subordinate Revenue Bonds, Special Revenue Bonds, Oil Franchise Tax Revenue Bonds and Registration Fee Revenue Bonds.

The ability of the Commission to repay such borrowings could be adversely affected by many factors, some of which are beyond the control of the Commission. For example, economic circumstances which result in significant declines in motor vehicle acquisition or operating cost increases could adversely affect the number of motor vehicles in use. An increase in the cost of fuel could adversely affect both the number of motor vehicles using the System and the mileage that such vehicles travel. Government regulations, such as Clean Air Act requirements, might also significantly restrict motor vehicle use and therefore diminish Tolls.

---

23 The information contained on such website link is not incorporated by reference in this Appendix A.

CERTAIN OTHER INFORMATION

Insurance

The Commission maintains All-Risk Property, Builder's Risk, Public Official bonds, Crime and Fiduciary insurance coverage and is self-insured for Workers' Compensation, Auto Liability, and General Liability claims.

For capital projects, the Commission maintains Builders' Risk insurance that covers buildings and structures, including temporary structures, while being constructed, erected or fabricated on Commission property. This insurance provides coverage against risk of physical damage and/or loss (subject to policy exclusions) to all buildings and structures during construction. Upon completion, a project is then covered under an All Risk insurance policy that has a $200 million per occurrence policy limit. See "THE COMMISSION- Recent Developments and Pending Legislation--*Status of Delaware River Bridge*" herein.

Deductibles range in amount depending on the line of coverage and the nature of the claim. For bridges, tunnels, overpasses, underpasses and viaducts, the deductible is $5 million. For buildings (including contents), toll plazas and equipment, warehouses and similar facilities, the deductible is $1 million. The Commission's All Risk Insurance policy also includes loss of income coverage subject to a seven-day waiting period.

Certain pre-specified construction projects are insured under an "Owner Controlled Insurance Program" until completion. Under these programs, the Commission, contractors and subcontractors are insured for Workers' Compensation, General Liability, Builders Risk and other project-specific insurance with limits and large deductibles varying by project.

Personnel and Labor Relations

As of June 1, 2019, the Commission employed a total of 1,928 persons, consisting of 479 management employees, 1,379 full-time union employees and 70 supplemental union employees. Seventy percent (70.0%) of all employees are engaged in maintenance operations and fare collection. There are 754 field personnel located across 23 facilities, which is comprised of employees in the maintenance and facilities operations departments. As a result, the Commission currently employs 622, or 24.4%, fewer employees than it did at the peak employment year of 2002.

The civil service requirements applicable to the state government do not apply to employees of the Commission.

The Commission is a party to three collective bargaining agreements and one memorandum of understanding with Teamsters' Local Unions covering central office, field, professional and first level supervisory personnel. The three collective bargaining agreements became effective on October 1, 2007 and expired on September 30, 2011. An agreement was reached with one bargaining unit, which was effective as of November 19, 2013 and extends until September 30, 2019. Agreements were reached with the other two bargaining units, which were ratified on January 27, 2016. Those agreements expire on September 30, 2019. The memorandum of understanding, which became effective on October 1, 2007, has no termination date. Labor negotiations for the next contract began on November 28, 2018 with Teamsters Local Union Nos. 77 and 250 and on May 1, 2019 with Teamsters Local Union Nos. 30P and 30S. Since union representation began, the Commission has experienced one work stoppage which occurred on November 24, 2004 and lasted for seven days.

Retirement Plan

The State Employee's Retirement System of the Commonwealth ("***SERS***") is one of the nation's oldest and largest statewide retirement plans for public employees. SERS administers both a defined benefit plan and a defined contribution plan. The defined benefit plan is funded through a combination of employee contributions, employer contributions and investment earnings. The defined contribution plan (Commonwealth of Pennsylvania Deferred Compensation Program) is funded by voluntary employee contributions and investment earnings.

Substantially all employees of the Commission are covered by SERS. The costs of the defined benefit plan are paid by the Commission quarterly based upon a stipulated contribution rate. Participating agency contributions, including those for the Commission, are mandated by statute and are based upon an actuarially determined percentage of gross pay that is necessary to provide SERS with assets sufficient to meet the benefits to be paid to SERS members.

Article II of the Pennsylvania Constitution provides the General Assembly the authority to establish or amend benefit provisions. Act 2001-9, signed into law on May 17, 2001, established Class AA ("***Class AA***") membership whereby, generally, annual full retirement benefits for electing active members is 2.5% of the member's highest three-year average salary (final average salary) multiplied by years of service. Commission employees hired after June 30, 2001, but before January 1, 2011, are Class AA members. Members hired on or before June 30, 2001 had the option, but were not required, to elect Class AA membership.

Those members not electing Class AA membership are considered Class A ("***Class A***"). The general annual benefit for full retirement for Class A members is 2% of the member's final average salary multiplied by years of service. Retirement benefits for Class A and AA employees vest after 5 years of credited service. Class A and AA employees who retire at age 60 with three years of service or with 35 years of service if under age 60 are entitled to an unreduced annual retirement benefit.

On July 6, 2010, Pennsylvania Act 2010-46 was enacted which reduced the employer contribution rates for Fiscal Year 2010-2011, thus reducing the Commission's contribution rates for Fiscal Year 2010-2011 from 3.80% for Class A employees and 4.75% for Class AA employees to 3.29% for Class A employees and 4.11% for Class AA employees. This rate reduction was only for one year.

On November 23, 2010, Pennsylvania Act 120 of 2010 ("***Act 120***") was enacted. Under this legislation, effective January 1, 2011, benefit reductions are mandated for future SERS members; however, benefits for current members are preserved. New employees are subject to a higher contribution rate, an increase in the vesting period from five to ten years, elimination of lump-sum withdrawals, and an increase to the normal retirement age to obtain full, unreduced pension benefits. Rather than the current full benefit provision of 35 years of credited service, new employees' age and combined years of service must equal 92, including a minimum of 35 years of credited service, before they may receive full benefits. Act 120 established Class A-3 and Class A-4 memberships. Effective January 1, 2011, all new members to the System must elect one of these new membership classes. New members who elect Class A-3 will accrue benefits at 2% of their final average salary multiplied by years of service. Those members choosing Class A-4 will accrue benefits at 2.5% of their final average salary multiplied by years of service. Under Act 120, retirement benefits for Class A-3 and A-4 vest after 10 years of credited service. Class A-3 and A-4 members who retire at age 65 with three years of service or when the member's age (last birthday) plus their completed years of credit service total at least 92 (Rule of 92) are entitled to an unreduced annual retirement benefit. Members hired prior to January 1, 2011 retain their current full benefit provision of 35 years of credited service.

Covered Class A, Class AA, Class A-3 and A-4 employees are required by statute to contribute to SERS at a rate of 5.00%, 6.25%, 6.25% and 9.30% respectively, of their gross pay. Employees' contributions are recorded in individually identified accounts, which are also credited with interest, calculated quarterly to yield 4.00% per annum, as mandated by statute. Accumulated employee contributions and credited interest vest immediately and are returned to the employee upon termination of service if the employee is not eligible for other benefits.

Participating agency contributions, including those for the Commission, are also mandated by statute and are based upon an actuarially determined percentage of gross pay that is necessary to provide SERS with assets sufficient to meet the benefits to be paid to SERS members. The Commission's required retirement contribution, as a percentage of covered payroll, by class for Fiscal Years 2014-2018 of the Commonwealth, is as follows:

Year Ended June 30 (Commonwealth's Fiscal Year)	Class A	Class AA	Class A-3	Class A-4
2018	27.55%	34.44%	23.80%	23.80%
2017	23.96	29.95	20.70	20.70
2016	19.89	24.86	17.18	17.18
2015	15.94	19.92	13.77	13.77
2014	12.10	15.12	10.46	10.46

The Commission's required contributions and percentage contributed for Fiscal Years 2014-2018 of the Commission are as follows:

Year Ended May 31	Commission Required Contribution (in millions)	Percent Contributed
2018	$38.1	100%
2017	33.3	100
2016	27.9	100
2015	22.6	100
2014	17.4	100

The Commission has budgeted $55 million for pension expense for Fiscal Year 2018-2019. The SERS required contributions are expected to be approximately $40 million.

A copy of SERS's annual financial statements may be obtained by writing to: State Employees' Retirement System, 30 North Third Street, P.O. Box 1147, Harrisburg, Pennsylvania, 17108-1147. Additional information about SERS, including its Comprehensive Annual Financial Reports and actuarial valuation reports, are available at http://www.sers.state.pa.us.[24]

Act 120 also imposes limits referred to as "collars" on annual increases to employer contribution rates (i.e., the employer contribution rate for a particular year may not exceed the sum which results from adding the collar applicable for such year to the prior year's contribution rate). The collar for Commonwealth Fiscal Year 2015-2016 was 4.5% and will no longer apply effective July 1, 2017.

At Fiscal Year ended May 31, 2018, the Commission reported a liability of $329.1 million for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2016, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. See Note 8 to the Commission's Financial Statements for additional information on how such pension liability was calculated.

On June 12, 2017 Governor Wolf signed Act 5 of 2017 ("***Act 5***") into law that will fundamentally change retirement options for most new Commission employees beginning January 1, 2019. The legislation allows current Commission employees/SERS members to opt-in to one of the three new options between January 1, 2019 and March 31, 2019.

Among other changes, Act 5 creates three new classes of service which include: two new hybrid defined benefit/defined contribution tiers ("***A-5***" and "***A-6***"); and a straight defined contribution plan ("***DC***") for SERS. The new classes of service will apply to all Commission employees who first become SERS members on or after January 1, 2019. Benefit reductions and increased retirement ages are mandated for future SERS members. Beginning January 1, 2019, new A-5 employees will annually accrue benefits at a rate of 1.25% and A-6 employees will annually accrue benefits at a rate of 1.0%. A-5, A-6 and DC employees will be subject to different employee contribution rates for the defined benefit and defined contribution plans and the vesting period for the defined benefit portion will be ten years while the defined contribution portion vests after three years. Additionally, Act 5 increases the normal retirement age to obtain full, unreduced defined benefit pension benefits for new A-5 and A-6 employees to age 67 and it requires 35 years of service and utilizes the "Rule of 97" (i.e., years of service plus age equal or exceed 97) The final average salary used to calculate defined benefits will be the employee's five highest salary years. Employer contribution rates for A-5, A-6 and DC employees will be 2.25%, 2.0% and 3.5% respectively.

Act 5 does not affect current Commission retiree's pension benefits nor does it reduce benefits for Commission employees hired before January 1, 2019. Act 5 also provides special

24 The information contained on such website link is not incorporated by reference in this Appendix A.

benefit enhancements for current A-3 and A-4 Commission employees who will be allowed to take certain lump sum withdrawals upon retirement. Additionally, A-3 and A-4 employee pension contribution rates will go down when SERS investment returns exceed return targets ("***Shared-Gain***"). This provision balances the current downside risk-sharing required of A-3 and A-4 members as required by Act 120.

For more information on SERS, including Act 120 and Act 5, see the SERS website at http://sers.pa.gov/newsroom_facts.aspx[25], http://sers.pa.gov/about_legislation.aspx[26], and the disclosure beginning on page 45 of the Official Statement for the Commonwealth's General Obligation Bonds, First Series of 2018 dated May 16, 2018, which may be found at the EMMA website at https://emma.msrb.org/ES1158733-ES906130-ES1307380.pdf.[27] **See also Note 8 to the Commission's Financial Statements and related Required Supplementary Information for more information on the Commission's pension liabilities.**

Other Post-Employment Benefit Liabilities

The Commission maintains another postemployment welfare plan program (the "***Plan***") for the purpose of providing benefits to eligible retirees and their dependents. The Plan is a single employer, defined benefit plan. The Plan's financial statements are not included in the financial statements of a public employee retirement system. The Plan issues a stand-alone financial report, which can be obtained by contacting the Commission's Accounting and Financial Reporting Department.

The Commission established the Pennsylvania Turnpike Commission Retiree Medical Trust (the "***Trust***") on May 30, 2008 as an irrevocable trust, tax-exempt under the Internal Revenue Code, to provide funding for the Plan. The Trust is administered by five trustees appointed by the Commission, who each serve two-year terms. The chairman and vice chairman of the Trust are appointed by the Trustees and serve two-year terms. PNC Bank, N.A. serves as custodian of the assets of the Plan. Disbursement of Plan assets are made by the custodian at the direction of the Trustees.

Plan benefit provisions and retiree and dependent contribution rates are established and may be amended by the Commission.

<u>Management and Supervisory Union Employees/Retirees</u>. The Benefits funded by the Trust include certain post-employment medical, prescription drug, dental and vision benefits to management and supervisory union employees based upon their date of hire and years of service. Eligibility categories generally include:

---

25 The information contained on such website link is not incorporated by reference in this Appendix A.

26 The information contained on such website link is not incorporated by reference in this Appendix A.

27 The information contained on such website link is not incorporated by reference in this Appendix A.

- Employees hired before March 1, 2016, who have reached 20 years of service and are under age 60; benefit eligibility changes from 20 to 10 years for retirees 60 years of age or older. The last five years of service must be with the Commission.

- Employees hired on or after March 1, 2016, who have reached 30 years of service and are under age 60; benefit eligibility changes from 30 to 25 years for retirees 60 years of age or older. The last ten years of service must be with the Commission. (Some current and previous Commonwealth employees hired on or after this date would be grandfathered under the first eligibility category.)

The same coverage is provided to surviving spouses or domestic partners and dependents of management and supervisory union retirees who retired on or after March 1, 2001. Surviving spouses or domestic partners of retirees who retired prior to March 1, 2001, may purchase medical coverage at the group rate and dependents are offered coverage under COBRA. Medicare Part B premiums are paid by the retiree, spouse or dependent if age 65 or over, or under age 65 and disabled.

<u>Non-Supervisory Union Employees/Retirees</u>. The Benefits also include certain post-employment medical and prescription drug benefits to non-supervisory union employees who have satisfied the eligibility requirements in the applicable collective bargaining agreement.

- For Local 30 Professionals who were hired prior to January 1, 2011 and Local 250 and 77 employees who were hired prior to January 27, 2016, the earlier of completion of 20 years of credited service or the later of attainment of age 60 and completion of 10 years of credited service. The last 5 years of credited service must be with the Commission.

- For Local 30 Professionals who were hired on or after January 1, 2011 and Local 250 and 77 employees who were hired on or after January 27, 2016, the earlier of completion of 30 years of credited service or the later of attainment of age 60 and completion of 25 years of credited service. The last 10 years of credited service must be with the Commission.

The same coverage is provided to spouses or domestic partners and dependents of eligible non-supervisory union retirees until the death of the retiree. Surviving spouses or domestic partners are required to contribute the full cost of coverage and dependents are offered coverage under COBRA.

The Trust began making payments to benefit providers for retiree claims and related administrative fees in October 2008. Prior to that time, the Commission made such payments. For the year ended May 31, 2018, preliminary and unaudited claims and administration expenses totaled $18.0 million.

In accordance with the pronouncements of the GASB (Governmental Accounting Standards Board), the Commission implemented GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions during fiscal year 2008*. Pursuant to GASB Statement No. 45, the Commission is required to have biennial actuarial valuations of its OPEB obligations. The most recent actuarial valuation, under GASB Statement No. 45, was completed as of January 1, 2016. Based on this valuation, the value of the Plan's assets is $331.6 million and the actuarial accrued liability is $330.4 million which nets to a funding excess of $1.2 million and a funded percentage of 100.4%, using a 6.5% discount rate and assuming that the annual required contribution would be invested in an irrevocable separate trust account.

Prior to implementing GASB Statement No. 45, the Commission funded its post-employment benefit liabilities on a pay-as-you-go basis. As a result of GASB Statement No. 45, the Commission adopted a Retiree Medical Trust Funding Policy, effective September 17, 2008, whereby the Commission anticipates approving an annual contribution to the Trust in the amount of the annual required contribution ("***ARC***") as determined by the Commission's actuary during the approval of its annual operating budget. The Commission's annual required contributions for Fiscal Year 2017 and Fiscal Year 2018, which includes the normal costs for the year, a Trust expense assumption, a component for the level dollar amortization of the total UAAL and a mid-year contribution interest component, were $11.14 million and $8.4 million, respectively. The Commission's actual contributions to the Trust for Fiscal Year 2017 and Fiscal Year 2018 were $28.18 million and $28.17 million, respectively.

The Plan's financial statements are not included in the financial statements of the Commission. For additional information regarding the Benefits and the Plan, including funding status and actuarial methods and assumptions, see Note 11 to the Commission's Financial Statements.

Commission Compliance Department

In 2009, an Office of Inspector General (the "***OIG***") was created within the Commission to maintain integrity and efficiency at the Commission and to further maintain public confidence in the Commission. In 2012, the OIG merged into the newly created Compliance Department. The functions of the former OIG currently fall under the Compliance Department and the Special Investigations unit within the Compliance Department. The primary mission of the Compliance Department is developing, managing, and executing comprehensive audit and investigation programs that examine and promote the adequacy and effectiveness of the Commission's internal control system. The Compliance Department includes the office of Chief Compliance Officer and the departments of Toll Revenue Audit, Internal Audit Services, and Special Investigations. As head of the department, the Chief Compliance Officer oversees all aspects of operations auditing, toll revenue auditing, and internal and external investigations to include working with the local District Attorneys' Offices in pursuing criminal prosecutions of the Commission's most egregious toll violators, enforcement of Commission rules, regulations, policies and strategic planning, and the Commission's Code of Conduct. The Compliance Department has conducted numerous investigations of fraud, waste, abuse and misconduct that have resulted in the termination of Commission employees and a vendor contract. The Compliance Department, in response to the Advisory Committee's Report dated, October 21, 2014, has conducted Code of Conduct and Business Conduct Guidelines training to all Commission employees, construction contractors, and vendors, consultants and other business partners in the construction services sector. When appropriate, the Compliance Department refers cases to law enforcement authorities for possible criminal prosecution.

EXHIBIT I

PENNSYLVANIA TURNPIKE COMMISSION
FISCAL YEAR 2020 TEN-YEAR CAPITAL PLAN

FY 2020 Ten Year Capital Plan (YOE)

Program	Category	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	Total FINAL PLAN
Highway	Roadway/Safety	170,052,500	121,665,660	40,501,979	62,760,775	91,683,948	106,722,771	75,893,964	109,409,579	106,864,724	90,929,643	976,485,544
Highway	Bridge,Tunnels & Misc Structure	68,476,640	77,790,750	79,917,597	48,254,824	57,794,877	64,165,820	76,240,239	78,527,446	80,503,239	94,843,963	726,515,396
Highway	Total Reconstruction	148,433,200	156,692,190	162,678,406	191,370,438	140,744,877	161,753,512	260,900,427	280,657,216	317,832,613	314,580,815	2,135,643,693
Highway	Interchanges (w/o Cashless)	37,345,000	72,779,800	92,043,684	116,714,171	112,730,962	100,810,474	38,758,938	12,618,506	6,663,211	78,286	590,543,031
Highway	Highway Miscellaneous	38,403,879	29,492,290	34,318,047	38,000,019	37,969,490	37,659,482	39,350,471	40,530,985	28,825,860	29,690,636	354,241,158
Highway	Total (w/o Cashless)	462,711,219	458,420,690	409,459,714	457,100,227	440,924,154	471,112,058	491,144,038	521,743,733	540,689,647	530,123,343	4,783,428,822
FEMO	Re-capitalization	1,465,000	185,400	190,962	196,691	202,592	208,669	214,929	221,377	228,019	234,859	3,348,498
FEMO	Sustainment	9,250,000	5,572,300	10,301,339	10,610,379	11,603,996	11,952,116	12,310,679	12,680,000	13,060,400	16,844,622	114,185,830
FEMO	Compliance	3,720,000	1,133,000	4,068,552	4,059,481	3,866,123	3,999,496	4,400,083	4,550,533	4,687,049	4,827,661	39,311,977
FEMO	New Energy Initiative	6,368,136	9,928,310	2,115,579	2,179,046	1,906,765	1,848,041	1,903,482	1,960,586	2,019,404	2,079,986	32,309,334
FEMO	Facilities Design	11,465,000	6,525,050	18,277,162	24,848,612	15,247,217	20,797,377	29,540,854	19,481,202	28,806,352	22,624,767	197,613,592
FEMO	Total	32,268,136	23,344,060	34,953,593	41,894,209	32,826,692	38,805,698	48,370,027	38,893,698	48,801,223	46,611,895	386,769,232
Fleet Equipment	Fleet Equipment	14,000,000	14,420,000	14,852,600	15,298,178	15,757,123	17,389,111	17,910,784	18,448,108	19,001,551	19,571,598	166,649,054
Technology	Functional Business Software	15,397,994	4,969,750	9,335,920	9,998,452	5,796,370	6,202,116	6,625,796	6,568,756	4,929,002	7,541,719	77,365,877
Technology	Infrastructure HW / SW	7,002,006	7,931,000	6,073,653	6,255,862	7,569,047	7,796,118	8,030,002	8,270,902	7,928,596	10,046,754	76,903,939
Technology	Toll Collection / Operations	2,600,000	2,935,500	3,023,565	2,731,818	2,813,772	2,666,330	2,746,320	2,828,710	380,031	0	22,726,046
Technology	Total	25,000,000	15,836,250	18,433,138	18,986,132	16,179,189	16,664,565	17,402,118	17,668,368	13,237,630	17,588,473	176,995,862
EN-00115	Cashless Tolling Conversion	18,228,000	54,847,500	75,132,938	43,162,717	74,171,031	46,486,890	56,836,889	40,093,888	18,494,843	3,131,456	430,586,152
	Grand Total (PSEXP)	552,207,355	566,868,500	552,831,982	576,441,462	579,858,190	590,458,323	631,663,857	636,847,795	640,224,894	617,026,764	5,944,429,121
	Reimbursed Funds	15,600,000	20,000,000	20,000,000	0	0	0	0	0	0	0	55,600,000
	Grand Total (PSNET)	536,607,355	546,868,500	532,831,982	576,441,462	579,858,190	590,458,323	631,663,857	636,847,795	640,224,894	617,026,764	5,888,829,121

[1] Capital plans from prior years back to Fiscal year 2005-2006 are available on the Commission's website at https://www.paturnpike.com/business/capital_plans.aspx (The information contained on such website link is not incorporated by reference in this Appendix A).

FY 2020 Ten Year Capital Plan - Percentage of Capital Expenditures by Funding Source[2]

	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2020-29
PAY GO %	30%	40%	40%	45%	50%	55%	60%	65%	70%	80%	55%
Bond Proceeds %	59%	57%	56%	52%	50%	45%	40%	35%	30%	20%	45%
Federal Reimbursements % [3]	11%	3%	4%	3%	0%	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

[2] Totals may not add due to rounding

[3] Federal Funds receipt assumed in subsequent year for cash flow purposes

APPENDIX B

AUDITED FINANCIAL STATEMENTS: 2018 AND 2017

[THIS PAGE INTENTIONALLY LEFT BLANK]

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania

Basic Financial Statements
Fiscal Years Ended May 31, 2018 and 2017
With Independent Auditor's Report

Prepared by:

Justin R. Simmons, Senior General Accountant
Christopher G. Will, Portfolio Manager
Darla S. Kelchner, Accounting Manager
Catherine L. Sabo, Accounting Manager
Theodore A. Rusenko, Accounting and Financial Reporting Manager
Jamie L. May, Technical Accounting Manager
Anthony Q. Maun, Assistant CFO/Accounting and Budget

MITCHELL TITUS
ACHIEVING EXCELLENCE TOGETHER

[THIS PAGE INTENTIONALLY LEFT BLANK]

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Basic Financial Statements
Fiscal Years Ended May 31, 2018 and 2017

TABLE OF CONTENTS

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Basic Financial Statements
Fiscal Years Ended May 31, 2018 and 2017

TABLE OF CONTENTS *(continued)*

MITCHELL TITUS

INDEPENDENT AUDITOR'S REPORT

The Commissioners
Pennsylvania Turnpike Commission

Report on the Financial Statements

We have audited the accompanying financial statements of the Pennsylvania Turnpike Commission (the Commission), a component unit of the Commonwealth of Pennsylvania, as of and for the years ended May 31, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the Commission's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

The Commission's management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

1818 Market Street
Philadelphia, PA 19103
T +1 215 561 7300
F +1 215 569 8709
mitchelltitus.com

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Commission as of May 31, 2018 and 2017, and the changes in its financial position and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As more fully explained in Note 9, the Commission has committed to making significant payments under an Amended Lease and Funding Agreement as required under the terms of Acts 44 and 89. The Commission's ability to make such payments is dependent on its continuing capability to issue bonds to fund such payments and ultimately to raise tolls sufficient to repay its bonded debt and current lease payments. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, the Schedule of Commission's Proportionate Share of Net Pension Liability – Pennsylvania State Employees' Retirement System, the Schedule of Commission's Contributions – Pennsylvania State Employees' Retirement System, and the Schedule of Funding Progress – Postemployment Healthcare Benefits on pages 4 through 19 and pages 98 through 100 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

MITCHELL TITUS

Other Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Commission's basic financial statements. The Section Information on pages 101 through 114 is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The Section Information is the responsibility of management and was derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Section Information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Mitchell & Titus, LLP

September 6, 2018

The management of the Pennsylvania Turnpike Commission (hereinafter referred to as the Commission) offers this narrative overview and analysis of the Commission's financial activities for the years ended May 31, 2018 and 2017, which should be read in conjunction with the Commission's basic financial statements.

Overview of the Basic Financial Statements

This Management's Discussion and Analysis (MD&A) is intended to serve as an introduction to the Commission's basic financial statements. While the Commission is considered a component unit of the Commonwealth of Pennsylvania, it is also an enterprise fund. Therefore, the Commission's financial statements are presented in a manner similar to a private-sector business and have been prepared according to accounting principles generally accepted in the United States of America (U.S. GAAP). All of the current year's revenues are recorded when earned and expenses are recorded as they are incurred, regardless of when the cash is received or disbursed.

The statements of net position present information on all of the Commission's assets and deferred outflows of resources, liabilities and deferred inflows of resources, with the differences being reported as net position. Over time, increases or decreases in net position serve as a relative indicator of the change in financial position of the Commission.

The statements of revenues, expenses, and changes in net position show the result of the Commission's total operations during the fiscal year and reflect both operating and nonoperating activities and capital contributions. Changes in net position (increases or decreases) reflect current year activities and the impact on the overall financial position of the Commission.

The statements of cash flows provide a detailed analysis of all sources and uses of cash. The direct method of cash flows is presented, along with a reconciliation of operating income to net cash provided by operating activities. The statements of cash flows are divided into the following activities sections – operating, investing, capital and related financing, and noncapital financing.

Notes to the basic financial statements contain information and offer explanations to the basic financial statements. The notes are intended to assist the reader in understanding the Commission's basic financial statements.

Financial Analysis

Comparative Condensed Statements of Net Position

	May 31		
	2018	**2017**	**2016**
		(In Thousands)	
Assets and deferred outflows of resources			
Current assets	$ 1,502,874	$ 1,398,596	$ 1,273,754
Long-term investments	708,304	843,616	935,770
Capital assets, net of accumulated depreciation	6,016,996	5,728,882	5,517,326
Other assets	168,267	159,666	155,908
Total assets	8,396,441	8,130,760	7,882,758
Total deferred outflows of resources	533,478	534,504	396,350
Total assets and deferred outflows of resources	8,929,919	8,665,264	8,279,108
Liabilities and deferred inflows of resources			
Current liabilities	921,771	913,350	740,063
Debt, net of unamortized premium	12,956,241	12,177,627	11,431,859
Net pension liability	329,112	379,173	346,946
Other noncurrent liabilities	197,627	246,896	269,409
Total liabilities	14,404,751	13,717,046	12,788,277
Total deferred inflows of resources	163,930	146,890	137,490
Total liabilities and deferred inflows of resources	14,568,681	13,863,936	12,925,767
Net position			
Net investment in capital assets	(250,112)	(258,038)	(24,520)
Restricted for construction purposes	260,524	330,048	332,920
Restricted for debt service	43,954	44,727	28,878
Unrestricted	(5,693,128)	(5,315,409)	(4,983,937)
Total net position	$ (5,638,762)	$ (5,198,672)	$ (4,646,659)

The Commission's total net position decreased $440.1 million and $552.0 million for the fiscal years ended May 31, 2018 and 2017, respectively. The large decreases in net position in both fiscal years were largely due to the requirements of Act 44, Act 89 and the Amended Lease and Funding Agreement (Amended Funding Agreement) between the Commission and Pennsylvania Department of Transportation (PennDOT) and costs associated with the related debt. Please refer to Note 9, Commitments and Contingencies, of the financial statements and to the Events That Will Impact Financial Position section of this MD&A for additional information regarding Act 44, Act 89 and the Amended Funding Agreement between the Commission and PennDOT. See also Note 7, Debt, in reference to the related debt.

Restricted net position is restricted for construction projects and debt service as defined in Trust Indentures and applicable bond issue official statements.

Financial Analysis *(continued)*

The Commission's total assets and deferred outflows of resources increased by $264.7 million in fiscal year 2018. This 2018 increase is mostly related to an increase in capital assets of $288.1 million. The increase in capital assets is mostly related to capital asset additions of $667.9 million, offset by $379.4 million of depreciation expense. For additional information, see: Note 5, Capital Assets.

The Commission's total assets and deferred outflows of resources increased by $386.2 million in fiscal year 2017. This 2017 increase is mostly related to an increase in capital assets of $211.6 million and a $138.2 million increase in deferred outflows of resources. The increase in capital assets is mostly related to capital asset additions of $621.0 million, offset by assets transferred to PennDOT with a net book value of $54.7 million and $354.3 million of depreciation expense. The increase in deferred outflows of resources is primarily the result of refundings of debt. For additional information, see: Note 5, Capital Assets; Note 7, Debt; and the Capital Assets and Debt Administration section of this MD&A.

Total liabilities and deferred inflows of resources increased by $704.7 million in fiscal year 2018 and by $938.2 million in fiscal year 2017. The increases for both fiscal year 2018 and fiscal year 2017 were mainly related to the issuance of senior debt to finance the costs of various capital expenditures set forth in the Commission's current Ten-Year Capital Plan and the issuance of subordinate debt to finance the costs of making payments to PennDOT in accordance with Act 44, Act 89, and the Amended Funding Agreement. See Note 7, Debt, for additional information regarding the new issuances of debt.

Financial Analysis *(continued)*

	Year ended May 31		
	2018	**2017**	**2016**
		(In Thousands)	
Operating			
Operating revenues	$ 1,201,274	$ 1,134,396	$ 1,052,691
Cost of services	(494,742)	(517,103)	(471,132)
Depreciation	(379,401)	(354,343)	(332,941)
Operating income	327,131	262,950	248,618
Nonoperating revenues (expenses)			
Investment earnings	18,809	14,225	29,069
Other nonoperating revenues	22,303	21,532	21,651
Act 44 payments to PennDOT	(450,000)	(450,000)	(450,000)
Capital assets transferred to PennDOT	-	(54,724)	(40,937)
Interest and bond expense	(566,137)	(560,660)	(521,021)
Nonoperating expenses, net	(975,025)	(1,029,627)	(961,238)
Loss before capital contributions	(647,894)	(766,677)	(712,620)
Capital contributions	207,804	214,664	180,906
Decrease in net position	(440,090)	(552,013)	(531,714)
Net position at beginning of year	(5,198,672)	(4,646,659)	(4,114,945)
Net position at end of year	$ (5,638,762)	$ (5,198,672)	$ (4,646,659)

For fiscal years ended May 31, 2018, and 2017, operating and nonoperating revenues totaled $1,242.4 million and $1,170.2 million, respectively, while operating and nonoperating expenses totaled $1,890.3 million and $1,936.8 million, respectively.

Total operating and nonoperating revenues for fiscal year 2018 were $72.2 million or 6.2% higher than fiscal year 2017. This increase in revenue was mainly related to an $85.5 million increase in net fare revenues resulting from a January 2018 toll increase of 6.0% for both cash and E-ZPass customers and the full year impact of the January 2017 toll increase of 6.0% for both cash and E-ZPass customers. In addition, total traffic volumes were up slightly, 0.4%, in fiscal year 2018 compared to fiscal year 2017.

Total operating and nonoperating revenues for fiscal year 2017 were $66.8 million or 6.1% higher than fiscal year 2016. This increase in revenue was mainly related to a $80.9 million increase in net fare revenues resulting from a January 2017 toll increase of 6.0% for both cash and E-ZPass customers and the full year impact of the January 2016 toll increase of 6.0% for both cash and E-ZPass customers. In addition, total traffic volumes were up slightly, 0.7%, in fiscal year 2017 compared to fiscal year 2016.

Financial Analysis *(continued)*

Total operating and nonoperating expenses for fiscal year 2018 were $46.5 million lower than fiscal year 2017 primarily due to a decrease in capital assets transferred to PennDOT of $54.7 million. In addition, cost of services decreased $22.4 million which is mainly related to a decrease in maintenance costs of $11.7 million to maintain the System and a decrease in employee benefits of $12.5 million primarily due to a decrease in pension expense of $11.3 million. These decreases were partially offset by a $25.1 million increase in depreciation expense.

Total operating and nonoperating expenses for fiscal year 2017 were $120.8 million higher than fiscal year 2016 primarily due to increases in cost of services of $46.0 million, increases in interest and bond expenses of $39.6 million related to the increase in debt (see Note 7, Debt), an increase in depreciation expense of $21.4 million and an increase in capital assets transferred to PennDOT of $13.8 million. The increase in cost of services is mainly related to an increase in maintenance costs of $12.6 million to maintain the System, an increase in employee benefits due to an increase in pension expense of $10.7 million and an increase in professional fees and services of $7.1 million.

Capital contributions decreased by $6.9 million in fiscal year 2018 primarily due to a $25.3 million decrease in reimbursements from other governments offset by an increase in Oil Company Franchise Tax revenue of $18.3 million. Capital contributions increased by $33.8 million in fiscal year 2017 primarily due to an increase in reimbursements from other governments. (See Note 2.)

Capital Assets and Debt Administration

Capital Assets

Capital assets consist of land and intangible assets (right-of-way easements), buildings, improvements, equipment, infrastructure, and assets under construction. Infrastructure assets are typically items that are immovable such as highways, bridges and tunnels. The Commission's investment in capital assets at May 31, 2018 amounted to $12.4 billion of gross asset value with accumulated depreciation of $6.4 billion, leaving a net book value of $6.0 billion. The net book value of capital assets at May 31, 2017 was $5.7 billion. Capital assets represented 67.4% and 66.1% of the Commission's total assets and deferred outflows of resources at May 31, 2018 and May 31, 2017, respectively.

Assets under construction at the end of fiscal year 2018 were $1,517.7 million, which was $160.7 million more than in fiscal year 2017. Assets under construction at the end of fiscal year 2017 were $1,357.0 million, which was $26.4 million more than in fiscal year 2016. In fiscal year 2018, $451.7 million of constructed capital assets were completed, which was $82.1 million less than the $533.8 million of constructed capital assets completed in fiscal year 2017. In addition to constructed capital assets, the Commission had capital assets additions of approximately $55.5 million and $60.9 million in fiscal years 2018 and 2017, respectively, related to purchases, capital contributions and capitalized interest.

Financial Analysis *(continued)*

Capital Assets and Debt Administration *(continued)*

Capital Assets (continued)

The highest priority highway program for the Commission is the ongoing full depth roadway total reconstruction of the east/west Turnpike Mainline and Northeast Extension. This work includes the reconstruction and widening of the roadway, the widening of the median, replacement of both mainline and overhead bridges as well as many safety enhancements. To date, approximately 125 miles of total reconstruction have been completed. Currently, approximately 18 miles are in construction and approximately 93 miles are in design. Also, the Commission completed another 13 miles of full depth roadway total reconstruction and 59 miles of roadway resurfacing during fiscal year 2018, helping to maintain a quality-riding surface with a Turnpike System-wide median IRI (International Roughness Index) of 84, which is rated as good.

The Commission completely replaced 26 aging original bridges with new bridges, rehabilitated another three bridges, constructed one new culvert, replaced two culverts and extended another 12 culverts. Of the Commission's bridges, 4.2% are rated structurally deficient which is below the national average of 9.2%. All 36 bridges currently rated structurally deficient are either in construction or design for rehabilitation.

The Commission also constructed 39 new noise walls, 36 new retaining walls and completed one major slide remediation project in calendar year 2017.

Facility projects continue to focus on environmental and safety compliance, and on the maintenance and repair of existing buildings including HVAC, electrical and plumbing systems based on deficiencies identified during facility condition assessments. The construction for the Kegg Maintenance Renovation and Lehigh Tunnel Lighting Replacement is currently underway and is scheduled to be completed in December 2018 and October 2019, respectively. The design for the Southern Beltway Maintenance Facility is scheduled to be completed in the fall of 2018 with construction completion anticipated in June 2020. The Devault Maintenance Facility Reconstruction is slated to begin design in the fall of 2018 with construction estimated to be completed in the spring of 2021.

Through collaboration with the Department of General Services and other Commonwealth agencies, the Commission has implemented a utility bill management system, "EnergyCap," to provide effective utility bill data collection and analytics for electricity and natural gas utility usage at Commission facilities, and to facilitate energy procurement activities that reduce energy costs. The Commission continues to utilize alternative fuels such as the public CNG Fueling Station at New Stanton Service Plaza and electric vehicle (EV) charging stations at Oakmont, New Stanton, Bowmansville, Peter J. Camiel and King of Prussia service plazas.

Financial Analysis *(continued)*

Capital Assets and Debt Administration *(continued)*

Capital Assets (continued)

The Mon/Fayette Expressway is open to traffic from the Pennsylvania/West Virginia line to PA 51 in Jefferson Hills Borough, a distance of 53 miles. The preliminary design for the remainder of the Mon/Fayette Expressway project, extending from PA Route 51 to Interstate Route 376 in Pittsburgh, has been completed. The current estimates to complete the final 14 miles of the Mon/Fayette Expressway to Interstate Route 376 are in excess of $2.0 billion. Limited funding provided through Act 89 will be used to advance this project.

The Southern Beltway is a series of three independent projects that extend from the Mon/Fayette Expressway near Finleyville to Interstate 376 (I-376) at the Pittsburgh International Airport. One project constructed as part of the Southern Beltway, a six-mile section of toll road in Allegheny County that connects I-376 to U.S. Route 22 (U.S. 22), is in operation. The project from U.S. 22 to Interstate 79 (I-79) has started construction with expected completion in late 2020 or early 2021. The project from I-79 to Mon/Fayette Expressway is currently in the final design phase. When completed, the entire Southern Beltway will utilize cashless tolling.

The Commission has no legal obligation to complete the unfinished portions of the Mon/Fayette Expressway and Southern beltway projects at this time.

The PA Turnpike/I-95 Interchange Project involves the construction of a direct interchange connecting the Turnpike Mainline to I-95. The project also includes tolling modifications and reconstruction and widening of the interstates.

The first phase of the Interchange Project includes preparatory work and construction of a portion of the interchange between I-95 and the Turnpike Mainline, including northbound I-95 to the eastbound Turnpike Mainline and westbound Turnpike Mainline to southbound I-95, and is currently under construction. This phase included construction of a new mainline toll plaza and a cashless tolling plaza westbound, both of which opened in January 2016. This first phase of the Interchange Project is expected to be completed and open to traffic in the fall of 2018. The second phase will include the completion of the reconstruction and widening of the remaining interchange connectors. The third phase will be the construction of a new wider bridge over the Delaware River, replacing the existing bridge.

The above paragraphs describe the changes in capital assets occurring during the fiscal years ended May 31, 2018 and 2017. Please refer to the capital assets section in the notes to the financial statements (Note 5) for more detailed capital asset schedules.

Financial Analysis *(continued)*

Capital Assets and Debt Administration *(continued)*

Debt Administration – Mainline

In June 2016, the Commission issued $447,850,000 2016 Series A-1 Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2046. The 2016 Series A-1 Senior Revenue Bonds were issued primarily to provide funds for various capital expenditures set forth in the Commission's current or any prior Ten-Year Capital Plan, including, but not limited to, the reconstruction of roadbed and roadway, the widening, replacing and redecking of certain bridges and the rehabilitation of certain interchanges. The bonds were also issued for payment of the costs of issuance for the 2016 Series A-1 Senior Revenue Bonds.

In June 2016, the Commission issued $140,590,000 2016 Series A-2 Senior Revenue Bonds at a variable rate with a maturity date of December 1, 2018. The 2016 Series A-2 Senior Revenue Bonds were issued primarily for the current refunding of existing variable rate debt, which included the Commission's 2012 Series B Variable Rate Revenue Bonds ($70,060,000), the Commission's 2014 Series B-1 Variable Rate Revenue Bonds ($35,050,000) and the Commission's 2014 Series B-2 Variable Rate Revenue Bonds ($34,950,000). The bonds were also issued for payment of the costs of issuance for the 2016 Series A-2 Senior Revenue Bonds.

In June 2016, the Commission issued $649,545,000 2016 Second Series Subordinate Revenue Refunding Bonds at a fixed rate with a maturity date of June 1, 2039. The 2016 Second Series Subordinate Revenue Refunding Bonds were issued to provide funds for the advance refunding of a portion of the Commission's 2008 Series A-1 Subordinate Revenue Bonds ($105,065,000), 2008 Series B-1 Subordinate Revenue Bonds ($50,665,000), 2009 Series A Subordinate Revenue Bonds ($43,355,000), 2009 Series B Subordinate Revenue Bonds ($288,185,000), 2009 Series D Subordinate Revenue Bonds ($16,575,000), 2010 Series B-1 Subordinate Revenue Bonds ($11,850,000), 2010 Series B-2 Subordinate Revenue Bonds ($87,475,000), 2010 Series C-2 Subordinate Revenue Bonds ($17,670,000), 2011 Series A Subordinate Revenue Bonds ($53,375,000), and for paying the cost of issuing the 2016 Second Series Subordinate Revenue Refunding Bonds.

In October 2016, the Commission issued $255,455,000 2016 Third Series Sub-Series A Subordinate Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2041. The 2016 Third Series Sub-Series A Subordinate Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2009 Series A Subordinate Revenue Bonds ($20,990,000), 2009 Series B Subordinate Revenue Bonds ($112,560,000), 2009 Series D Subordinate Revenue Bonds ($75,700,000), 2010 Series B-2 Subordinate Revenue Bonds ($35,545,000), 2011 Series A Subordinate Revenue Bonds ($7,925,000), and for paying the cost of issuing the 2016 Third Series Sub-Series A Subordinate Revenue Refunding Bonds.

Financial Analysis *(continued)*

Capital Assets and Debt Administration *(continued)*

Debt Administration – Mainline (continued)

In October 2016, the Commission issued $75,755,000 2016 Third Series Sub-Series B Subordinate Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2025. The 2016 Third Series Sub-Series B Subordinate Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2008 Series A-2 Subordinate Revenue Bonds ($18,905,000), 2008 Series B-2 Subordinate Revenue Bonds ($47,785,000) and for paying the cost of issuing the 2016 Third Series Sub-Series B Subordinate Revenue Refunding Bonds.

In October 2016, the Commission issued $79,865,000 2016 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2036. The 2016 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2010 Series A-2 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($16,520,000), 2010 Series B-2 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($9,705,000), 2011 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($56,860,000) and for paying the cost of issuing 2016 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds.

In January 2017, the Commission issued $284,275,000 2017 Series A Subordinate Revenue Bonds at a fixed rate with a maturity date of December 1, 2046. The 2017 Series A Subordinate Revenue Bonds were issued primarily to provide funds to finance the costs of making payments to PennDOT in accordance with Act 44 and Act 89, including reimbursing the Commission for certain payments previously made by the Commission to PennDOT and for paying the cost of issuing the 2017 Series A Subordinate Revenue Bonds.

In May 2017, the Commission issued $291,850,000 2017 First Series Subordinate Revenue Refunding Bonds at a variable rate with a maturity date of December 1, 2041. The 2017 First Series Subordinate Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2009 Series A Subordinate Revenue Bonds ($71,475,000) and 2009 Series D Subordinate Revenue Bonds ($215,130,000) and for paying the cost of issuing the 2017 First Series Subordinate Revenue Refunding Bonds.

In July 2017, the Commission issued $379,115,000 2017 Series B-1 Subordinate Revenue Bonds at a fixed rate with a maturity date of June 1, 2047. The 2017 Series B-1 Subordinate Revenue Bonds were issued primarily to finance a portion of the cost of making payments to PennDOT in accordance with Act 44 and Act 89 and paying the cost of issuing the 2017 Series B-1 Subordinate Revenue Bonds.

Financial Analysis *(continued)*

Capital Assets and Debt Administration *(continued)*

Debt Administration – Mainline (continued)

In July 2017, the Commission issued $371,395,000 2017 Series B-2 Subordinate Revenue Bonds at a fixed rate with a maturity date of June 1, 2039. The 2017 Series B-2 Subordinate Revenue Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2008 Series A-1 Subordinate Revenue Bonds ($2,820,000), 2009 Series A Subordinate Revenue Bonds ($62,675,000), 2009 Series B Subordinate Revenue Bonds ($138,605,000), 2010 Series B-2 Subordinate Revenue Bonds ($106,615,000), 2010 Series C-2 Subordinate Revenue Bonds ($19,575,000), 2011 Series A Subordinate Revenue Bonds ($18,190,000), 2012 Series A Subordinate Revenue Bonds ($9,310,000), 2015 Series B Subordinate Revenue Bonds ($12,940,000) and for paying the cost of issuing the 2017 Series B-2 Subordinate Revenue Bonds.

In July 2017, the Commission issued $45,390,000 2017 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds at a fixed rate with a maturity date of June 1, 2028. The 2017 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2010 Series B-2 Motor License Fund-Enhanced Subordinate Special Revenue Bonds, ($5,220,000), 2011 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($4,015,000), 2011 Series B Motor License Fund-Enhanced Special Subordinate Revenue Bonds ($12,560,000), 2012 Series A Motor License Fund-Enhanced Special Subordinate Revenue Bonds ($9,845,000), 2012 Series B Motor License Fund-Enhanced Special Subordinate Revenue Bonds ($6,430,000), 2013 Series A Motor License Fund-Enhanced Special Subordinate Revenue Bonds ($6,080,000), 2013 Series B Motor License Fund-Enhanced Special Subordinate Revenue Bonds ($3,410,000) and for paying the cost of issuing the 2017 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds.

In October 2017, the Commission issued $365,895,000 2017 Series A-1 Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2047. The 2017 Series A-1 Senior Revenue Bonds were issued to finance the cost of various capital expenditures set forth in the Commission's Ten-Year Capital Plan, including but not limited to the reconstruction of roadbed and roadway, the widening, replacing and redecking of certain bridges and/or rehabilitation of certain interchanges and paying the costs of issuing the 2017 Series A-1 Senior Revenue Bonds.

In October 2017, the Commission issued $133,060,000 2017 Series A-2 Senior Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2030. The 2017 Series A-2 Senior Revenue Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2014 Series C Senior Revenue Bonds ($7,015,000), 2014 Series A Senior Revenue Bonds ($4,145,000), 2013 Series C Senior Revenue Bonds ($18,240,000), 2012 Series A Senior Revenue Bonds ($26,970,000), 2011 Series E Senior Revenue Bonds ($84,295,000), and paying the costs of issuing the 2017 Series A-2 Senior Revenue Bonds.

Financial Analysis *(continued)*

Capital Assets and Debt Administration *(continued)*

Debt Administration – Mainline (continued)

In October 2017, the Commission issued $40,000,000 2017 Series B-1 Senior Revenue Bonds at a variable rate with a maturity of December 1, 2020. The 2017 Series B-1 Senior Revenue Bonds were issued primarily for the current refunding of the December 1, 2017 maturity of the Commission's 2014 Series B-1 Variable Rate Senior Revenue Bonds ($40,000,000).

In October 2017, the Commission issued $100,320,000 2017 Series B-2 Senior Revenue Bonds at a variable rate with a maturity of December 1, 2021. The 2017 Series B-2 Senior Revenue Bonds were issued primarily for the current refunding of the December 1, 2017 maturity of the Commission's 2016 Series A-2 Variable Rate Senior Revenue Bonds ($100,000,000) and for paying the cost of issuing the 2017 Series B-1 Senior Revenue Bonds and the 2017 Series B-2 Senior Revenue Bonds.

In November 2017, the Commission issued $150,425,000 2017 Second Series Subordinate Revenue Refunding Bonds at a fixed rate with a maturity of December 1, 2037. The 2017 Second Series Subordinate Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2010 Series B-1 Subordinate Revenue Bonds ($81,350,000), 2010 Series C-2 Subordinate Revenue Bonds ($54,775,000), 2011 Series A Subordinate Revenue Bonds ($6,135,000), 2015 Series B Subordinate Revenue Bonds ($18,245,000) and for paying the costs of issuing the 2017 Second Series Subordinate Refunding Bonds.

In November 2017, the Commission issued $243,675,000 2017 Second Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2041. The 2017 Second Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2010 Series A-1 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($66,495,000), 2010 Series A-2 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($75,670,000), 2010 Series B-2 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($44,695,000), 2011 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($41,745,000), 2011 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($6,815,000), 2012 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($6,010,000), 2013 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($4,270,000), 2013 Series B-3 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($12,835,000) and for paying the cost of issuing the 2017 Second Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds.

In December 2017, the Commission issued $103,330,000 2017 Series C Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2021. The 2017 Series C Senior Revenue Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2011 Series E Senior Revenue Bonds ($25,785,000), 2012 Series A Senior Revenue Bonds ($26,985,000), 2013 Series C Senior Revenue Bonds ($38,385,000) and to pay the cost of issuing the 2017 Series C Senior Revenue Bonds.

Financial Analysis *(continued)*

Capital Assets and Debt Administration *(continued)*

Debt Administration – Mainline (continued)

In December 2017, the Commission issued $143,585,000 2017 Third Series Subordinate Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2040. The 2017 Third Series Subordinate Revenue Refunding Bonds were issued to provide funds for the advanced refunding a portion of the Commission's 2010 Series C-1 Subordinate Revenue Bonds ($51,595,0000), 2011 Series B Subordinate Revenue Bonds ($39,605,000), 2012 Series A Subordinate Revenue Bonds ($21,610,000), 2012 Series B Subordinate Revenue Bonds ($1,055,000), 2013 Series B-3 Subordinate Revenue Bonds ($5,375,000), 2015 Series B Subordinate Revenue Bonds ($29,870,000) and for paying the cost of issuing the 2017 Third Series Subordinate Revenue Refunding Bonds.

In December 2017, the Commission issued $164,240,000 2017 Third Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2040. The 2017 Third Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds were issued to provide funds for the advanced refunding a portion of the Commission's 2010 Series A-1 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($26,360,000), 2010 Series B-1 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($20,000,000), 2011 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($45,930,000), 2012 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($39,960,000), 2012 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($13,915,000), 2013 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($13,010,000), 2013 Series B-3 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($7,255,000) and for paying the cost of issuing the 2017 Third Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds.

In February 2018, the Commission issued $50,000,000 EB-5 Loan (First Tranche) at a fixed rate with a maturity of February 21, 2023. The Commission is borrowing this money to fund a portion of the costs of certain capital projects included in the Commission's current Ten-Year Capital Plan and for paying the cost of issuing the EB-5 Loan.

Debt Administration – Oil Company Franchise Tax

In September 2016, the Commission issued $198,595,000 2016 Series A Oil Franchise Tax Senior Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2032. The 2016 Series A Oil Franchise Tax Senior Revenue Refunding Bonds were issued to provide funds for the advanced refunding of the Commission's 2003 Series C Oil Franchise Tax Senior Revenue Bonds ($160,000,000), the advanced refunding of a portion of 2009 Series A-2 Oil Franchise Tax Senior Revenue Bonds ($2,120,000), the current refunding of 2006 Series A Oil Franchise Tax Senior Revenue Bonds ($66,025,000) and for paying the cost of issuing the 2016 Series A Oil Franchise Tax Senior Revenue Refunding Bonds.

Financial Analysis *(continued)*

Capital Assets and Debt Administration *(continued)*

Debt Administration – Oil Company Franchise Tax (continued)

In September 2016, the Commission issued $115,395,000 2016 Series B Oil Franchise Tax Subordinate Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2032. The 2016 Series B Oil Franchise Tax Subordinate Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the 2009 Series D-2 Oil Franchise Tax Subordinate Revenue Bonds ($860,000), the current refunding of the 2006 Series B Oil Franchise Tax Subordinate Revenue Bonds ($122,205,000), the current refunding of 2003 Series B Oil Franchise Tax Subordinate Revenue Bonds ($16,440,000) and for paying the cost of issuing the 2016 Series B Oil Franchise Tax Subordinate Revenue Refunding Bonds.

The preceding paragraphs describe debt activity occurring during the fiscal years ended May 31, 2018 and 2017. Please refer to the debt and commitments and contingencies sections in the notes to the financial statements (Notes 7 and 9) for more detailed schedules and descriptions of long-term debt and swap activity.

Events That Will Impact Financial Position

On July 18, 2007, Act 44 was enacted, creating a "public-public partnership" between the Commission and PennDOT to provide funding for roads, bridges and transit throughout the Commonwealth. Subsequently, in order to, among other things, effectuate the provisions of Act 44 requiring the Commission to make substantial annual payments to PennDOT, as described below, the Commission and PennDOT entered into a Lease and Funding Agreement (the Funding Agreement), incorporating many of the terms of Act 44. The term of the Funding Agreement is fifty (50) years from October 14, 2007, its effective date.

The Funding Agreement also granted the Commission the option to lease the portion of Interstate 80 (I-80) located in the Commonwealth from PennDOT upon, among other things, the approval of the Federal Highway Administration (FHWA) of the conversion of such portion into a toll road (the Conversion). The Conversion was not approved by FHWA and neither the Commission nor PennDOT appealed the decision. The Commission did not exercise its option to lease such portion of I-80, and the period during which the Commission could exercise its option under the Funding Agreement lapsed on October 14, 2010 without the Commission effectuating Conversion or having the ability to do so in the future. Under existing law, including Act 89, all legal, financial and operational responsibility for I-80 remains with PennDOT.

Pursuant to Act 44 and the Funding Agreement, because the Conversion did not occur, the Commission was obligated to make scheduled annual payments, payable in equal quarterly installments, of $450 million to PennDOT through 2057 with $200 million of the scheduled annual payment supporting road and bridge projects and $250 million supporting transit projects throughout the Commonwealth. See the following paragraphs for subsequent changes to such annual payments.

Events That Will Impact Financial Position *(continued)*

On November 25, 2013, Act 89 was enacted providing substantial revision to the Commission's transportation funding obligations under Act 44 and authorized the Commission and PennDOT to immediately amend the Funding Agreement to reflect the statutory provisions of Act 89. On April 4, 2014, the Commission and PennDOT executed Amendment Number One to the Lease and Funding Agreement (the *Act 89 Amendment* and together with the Act 44 Funding Agreement, the *Amended Funding Agreement*). The Amended Funding Agreement terminates on October 14, 2057. In accordance with Act 89 and the Amended Funding Agreement, the Commission's aggregate annual payment to PennDOT for fiscal year 2014 through fiscal year 2022 is $450 million and, in accordance with Act 89, the Commission must pay at least $30 million of such amount from current revenues. Commencing in fiscal year 2023 through the term of the Amended Funding Agreement, the Commission's aggregate annual payment to PennDOT is $50 million, which amount shall be paid from then current revenues of the Commission.

The provisions of Act 44 and the Funding Agreement require that the Commission provide a financial plan to the Secretary of the Budget of the Commonwealth on or before June 1 of each year that describes the Commission's proposed operating and capital expenditures, borrowings, liquidity and other financial management covenants and policies, estimated toll rates and all other revenue and expenditures for the ensuing fiscal year. Act 44 provides that the financial plan shall demonstrate that the operation of the Commission can reasonably be anticipated to result in having sufficient funds to make payments due to PennDOT pursuant to the Funding Agreement and Act 44 during the ensuing and future fiscal years. It is important to note that the financial plan does not cover the funding needs for the Mon/Fayette or the Southern Beltway projects.

On June 1, 2018, the Commission submitted its financial plan for fiscal year 2019 (the Financial Plan). The Financial Plan incorporates the Commission's adopted Ten-Year Capital Plan, which provides for approximately $5.8 billion, net of federal reimbursements, in capital spending over the coming decade. The Ten-Year Capital Plan authorizes the Commission to undertake a number of capital improvements and to pursue new initiatives to maintain and improve the Turnpike System ensuring that it remains in a state of good repair. The Financial Plan indicates that in fiscal year 2018 the Commission was able to meet all of its financial covenants and obligations under Act 44 and Act 89 and progressed with its Ten-Year Capital Plan. Given the ongoing and moderate recovery of both the national and state economies, the Commission plans to continue the cost containment and efficiency measures it implemented within the past few years. These measures, together with future toll increases, are expected to allow the Commission to meet its financial covenants, Act 44 and Act 89 obligations, and capital needs during fiscal year 2019.

Events That Will Impact Financial Position *(continued)*

The Financial Plan concludes that the Commission will continue to meet all of its indenture covenants and all of its other obligations through fiscal year 2057. However, as a forward-looking report, the Financial Plan makes certain assumptions, including future toll increases, to reach its conclusion that the financial covenants, Act 44 and Act 89 obligations and capital needs will be met beyond fiscal year 2018. Key among these assumptions is the Commission's ability to raise tolls throughout the Turnpike System. The Financial Plan reflects the full year effects of the January 2018 toll increase and the partial year impacts of a January 2019 toll increase. The Financial Plan assumes the $450 million reduced level of funding obligations required by Act 44 and Act 89 through fiscal year 2022 and the $50 million funding level from fiscal year 2023 through fiscal year 2057. No assurances can be made by the Commission with respect to the assumptions made or conclusions reached in the Financial Plan. A complete copy of the Financial Plan is available on the Commission's website.

The preceding paragraphs provide a brief overview of Act 44 and Act 89 and their requirements. Please refer to the commitments and contingencies section in the notes to the financial statements (Note 9) for additional information regarding the Commission's commitments under the Amended Funding Agreement. See Note 15 (Subsequent Events) regarding an additional Amendment to this agreement. Furthermore, legislation may be introduced that could affect the Commission and its obligations pursuant to Act 44 and Act 89. However, the Commission cannot predict what other legislation may be considered by the General Assembly during the 2018-2019 or future legislative sessions or if any other proposals or initiatives may lead to the adoption of legislation that may affect the Commission.

On March 15, 2018, several individuals, entities and associations involved in or related to the commercial trucking industry (the Trucking Plaintiffs) filed a class action lawsuit against the Commission, several individuals in their individual capacity and in their official capacity related to the Commission, an individual in her individual capacity and in her official capacity as Chair of the Commission and as Secretary of Transportation, and Governor Wolf, in both his individual and official capacity. The litigation is captioned Owner Operator Independent Drivers Association, Inc. et al. v. Pennsylvania Turnpike Commission et al., No. 1:18-cv-00608-SHR (United States District Court for the Middle District of Pennsylvania). The Trucking Plaintiffs allege that Act 44, as amended by Act 89 (Act 44/89), violates the Commerce Clause and the right to travel under the U.S. Constitution, either facially or as applied, because the Commission improperly imposes Turnpike tolls beyond that which is necessary for the operation and maintenance of the Turnpike System and that the Commission expends toll revenues for purposes other than the operation and maintenance of the Turnpike System.

Events That Will Impact Financial Position *(continued)*

The lawsuit seeks, among other things, the following injunctive remedies: (1) a permanent injunction enjoining the Commission from issuing any further bonds or incurring any additional debt for the purpose of making Act 44/89 payments; and (2) a permanent injunction prohibiting the Commission from using toll revenues to make payments on outstanding bonds issued to meeting Act 44/89 obligations. Moreover, the lawsuit seeks certain monetary damages including a refund of a portion of certain tolls allegedly imposed up on the Trucking Plaintiffs' use of the Turnpike System in excess of what was reasonably necessary to pay for the cost of operating and maintaining the Turnpike System, together with any legally applicable interest and other compensation.

The Commission along with all of the Commonwealth parties are vigorously defending Act 44/89 and the propriety of its use of the Turnpike toll revenues in court. All defendants have filed motions to dismiss the complaint. In addition, the Commission has filed an alternative motion for summary judgement. The Commission's motions assert that Act 44/89, the amount of the tolls and the use of the toll revenues violate neither the Commerce Clause nor the Constitutional right to travel. The Commission also asserts that the uses of toll revenues fall with in Congressional authorization. As of May 31, 2018, no specific liability has been recorded for this lawsuit.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Statements of Net Position
May 31, 2018 and 2017
(in thousands)

	2018	2017
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES		
Current assets		
Cash and cash equivalents	$ 211,437	$ 215,949
Short-term investments	91,361	67,764
Accounts receivable - net of allowance of $106.5 million and $55.7 million for the years ended May 31, 2018 and 2017, respectively	68,246	69,181
Accrued interest receivable	1,331	1,268
Inventories	17,396	18,973
Restricted current assets		
Cash and cash equivalents	904,570	701,841
Short-term investments	188,143	303,421
Accounts receivable	17,216	16,686
Accrued interest receivable	3,174	3,513
Total current assets	1,502,874	1,398,596
Noncurrent assets		
Long-term investments		
Long-term investments unrestricted	221,063	278,202
Long-term investments restricted	487,241	565,414
Total long-term investments	708,304	843,616
Capital assets not being depreciated		
Land and intangibles	380,837	359,210
Assets under construction	1,517,692	1,356,951
Capital assets being depreciated		
Buildings	980,744	978,186
Improvements other than buildings	124,960	121,137
Equipment	621,430	638,300
Infrastructure	8,809,493	8,380,745
Total capital assets before accumulated depreciation	12,435,156	11,834,529
Less: Accumulated depreciation	6,418,160	6,105,647
Total capital assets after accumulated depreciation	6,016,996	5,728,882
Other assets		
Prepaid bond insurance costs	4,821	5,377
OPEB asset	133,248	122,542
Other assets	30,198	31,747
Total other assets	168,267	159,666
Total noncurrent assets	6,893,567	6,732,164
Total assets	8,396,441	8,130,760
Deferred outflows of resources from hedging derivatives	71,003	106,825
Deferred outflows of resources from refunding bonds	415,773	343,320
Deferred outflows of resources from pensions	46,702	84,359
Total deferred outflows of resources	533,478	534,504
Total assets and deferred outflows of resources	$ 8,929,919	$ 8,665,264

The accompanying notes are an integral part of these financial statements.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Statements of Net Position *(continued)*
May 31, 2018 and 2017
(in thousands)

	2018	2017
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES		
Current liabilities		
Accounts payable and accrued liabilities	$ 491,114	$ 449,301
Current portion of debt	356,030	391,375
Unearned Income	74,627	72,674
Total current liabilities	921,771	913,350
Noncurrent liabilities		
Debt, less current portion, net of unamortized premium of $1,009,927 and $808,031 in 2018 and 2017, respectively	12,956,241	12,177,627
Net pension liability	329,112	379,173
Other noncurrent liabilities	197,627	246,896
Total noncurrent liabilities	13,482,980	12,803,696
Total liabilities	14,404,751	13,717,046
Deferred inflows of resources from hedging derivatives	4,573	2,700
Deferred inflows of resources from service concession arrangements	121,674	122,694
Deferred inflows of resources from refunding bonds	2,896	3,207
Deferred inflows of resources from pensions	34,787	18,289
Total deferred inflows of resources	163,930	146,890
Total liabilities and deferred inflows of resources	14,568,681	13,863,936
NET POSITION		
Net investment in capital assets	(250,112)	(258,038)
Restricted for construction purposes	260,524	330,048
Restricted for debt service	43,954	44,727
Unrestricted	(5,693,128)	(5,315,409)
Total net position	$ (5,638,762)	$ (5,198,672)

The accompanying notes are an integral part of these financial statements.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Statements of Revenues, Expenses, and Changes in Net Position
Years Ended May 31, 2018 and 2017
(in thousands)

	2018	2017
Operating revenues		
Fares - net of discounts of $6,552 and $3,915 for the years ended May 31, 2018 and 2017, respectively	$ 1,196,606	$ 1,111,061
Other	4,668	23,335
Total operating revenues	1,201,274	1,134,396
Operating expenses		
Cost of services	494,742	517,103
Depreciation	379,401	354,343
Total operating expenses	874,143	871,446
Operating income	327,131	262,950
Nonoperating revenues (expenses)		
Investment earnings	18,809	14,225
Other nonoperating revenues	22,303	21,532
Act 44 and Act 89 payments to PennDOT	(450,000)	(450,000)
Capital assets transferred to PennDOT	-	(54,724)
Interest and bond expense	(566,137)	(560,660)
Nonoperating expenses, net	(975,025)	(1,029,627)
Loss before capital contributions	(647,894)	(766,677)
Capital contributions	207,804	214,664
Decrease in net position	(440,090)	(552,013)
Net position at beginning of year	(5,198,672)	(4,646,659)
Net position at end of year	$(5,638,762)	$(5,198,672)

The accompanying notes are an integral part of these financial statements.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Statements of Cash Flows
Years Ended May 31, 2018 and 2017
(in thousands)

	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash received from customer tolls and deposits	$ 1,189,955	$ 1,117,714
Cash payments for goods and services	(321,166)	(328,522)
Cash payments to employees	(182,302)	(158,134)
Cash received from other operating activities	12,846	8,926
Net cash provided by operating activities	699,333	639,984
CASH FLOWS FROM INVESTING ACTIVITIES		
Proceeds from sales and maturities of investments	4,258,179	4,841,067
Interest received on investments	21,980	22,255
Purchase of investments	(4,030,569)	(4,910,891)
Net cash provided by (used in) investing activities	249,590	(47,569)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Capital grants received from other governments	31,273	55,265
Proceeds from Motor License Registration fees	28,000	28,000
Proceeds from Oil Company Franchise Tax	142,794	120,754
Construction and acquisition of capital assets	(628,744)	(599,083)
Proceeds from sale of capital assets	1,449	993
Payments for bond and swap expenses	(3,049)	(4,337)
Payments for debt refundings	(407,296)	(525,419)
Payments for debt maturities	(194,370)	(68,200)
Interest paid on debt	(281,423)	(270,070)
Interest subsidy from Build America Bonds	20,909	20,843
Proceeds from debt issuances	880,543	1,055,718
Net cash used in capital and related financing activities	(409,914)	(185,536)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES		
Cash payments to PennDOT	(450,000)	(450,000)
Payments for bond and swap expenses	(8,207)	(8,128)
Payments for debt refundings	(1,283,282)	(1,549,690)
Payments for debt maturities	(57,005)	(54,430)
Interest paid on debt	(237,750)	(224,231)
Proceeds from debt issuances	1,695,452	1,823,095
Net cash used in noncapital financing activities	(340,792)	(463,384)
Increase (decrease) in cash and cash equivalents	198,217	(56,505)
Cash and cash equivalents at beginning of year	917,790	974,295
Cash and cash equivalents at end of year	$ 1,116,007	$ 917,790

The accompanying notes are an integral part of these financial statements.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Statements of Cash Flows *(continued)*
Years Ended May 31, 2018 and 2017
(in thousands)

	2018	2017
Reconciliation of operating income to net cash provided by operating activities		
Operating income	$ 327,131	$ 262,950
Adjustments to reconcile operating income to net cash provided by operating activities		
Depreciation	379,401	354,343
Change in operating assets and liabilities		
Accounts receivable	677	(11,924)
Inventories	1,577	1,520
Other assets	(10,724)	(8,606)
Deferred outflows of resources from pensions	37,657	(18,078)
Accounts payable and accrued liabilities	1,954	17,042
Net pension liability	(50,061)	32,227
Other noncurrent liabilities	(4,777)	4,414
Deferred inflows of resources from pensions	16,498	6,096
Net cash provided by operating activities	$ 699,333	$ 639,984
Reconciliation of cash and cash equivalents to the statements of net position		
Cash and cash equivalents	$ 211,437	$ 215,949
Restricted cash and cash equivalents	904,570	701,841
Total cash and cash equivalents	$ 1,116,007	$ 917,790

Noncash Investing, Capital and Related Financing and Noncapital Financing Activities

The Commission recorded a net increase of $6.8 million and $9.5 in the fair value of its investments not reported as cash equivalents for the years ended May 31, 2018 and 2017, respectively.

The Commission recorded $44.6 million and $34.8 million for the amortization of bond premiums for the years ended May 31, 2018 and 2017, respectively.

As indicated in Note 7, the Commission refunded various bonds in both fiscal years 2018 and 2017. The fiscal year 2018 refundings resulted in a $32.8 million reclassification from bond premiums (discounts) to deferred outflows of resources from refunding bonds and a $6.2 million reclassification from bond premiums (discounts) to deferred inflows of resources from refundings. The fiscal year 2017 refundings resulted in a $8.1 million reclassification from bond premiums (discounts) to deferred outflows of resources from refunding bonds and a $3.1 million reclassification from bond premiums (discounts) to deferred inflows of resources from refundings. Additionally, the Commission recorded $33.5 million and $36.4 million in expenses for amortization of deferred outflows/inflows of resources from refunding bonds for the years ended May 31, 2018 and 2017, respectively.

The accompanying notes are an integral part of these financial statements.

Noncash Investing, Capital and Related Financing and Noncapital Financing Activities *(continued)*

The Commission recorded $0.5 million and $4.6 million in expenses for amortization of prepaid bond insurance costs for the years ended May 31, 2018 and 2017, respectively.

The Commission recorded an interest expense reduction of $3.2 million and $3.1 million for the years ended May 31, 2018 and 2017, respectively, related to GASB 53 entries.

The Commission recognized total capital contributions of $207.8 million for fiscal year ended May 31, 2018. Cash received of $202.1 million for fiscal year ended May 31, 2018 is reported in the capital and related financing activities of this statement. The $5.7 million difference between capital contributions and cash received is the result of a $0.3 million increase in receivables related to these capital contributions and a $5.4 million noncash capital contribution related to capital assets provided by service plaza operators. The Commission recognized total capital contributions of $214.7 million for fiscal year ended May 31, 2017. Cash received of $204.0 million for fiscal year ended May 31, 2017 is reported in the capital and related financing activities of this statement. The $10.7 million difference between capital contributions and cash received is the result of a $5.5 million increase in receivables related to these capital contributions and a $5.2 million noncash capital contribution related to capital assets provided by service plaza operators. The Commission entered into agreements with a food and fuel provider to totally reconstruct the service plazas; the service plaza operators provide the capital for the reconstruction in exchange for lower rental rates. See Note 2 for further discussion on capital contributions and Note 6 for further discussion on the service plazas.

The Commission and PennDOT entered into an agreement regarding ownership of overhead bridges that carry state roads. Per the agreement, once the Commission replaces these overhead bridges, and after final inspections and supplemental agreements are signed by both parties, ownership and maintenance responsibilities of the bridges are transferred from the Commission to PennDOT. The Commission did not transfer any assets to PennDOT during fiscal year ended May 31, 2018. The Commission transferred assets with a net book value of $54.7 million to PennDOT during the fiscal year ended May 31, 2017.

NOTE 1 FINANCIAL REPORTING ENTITY

Generally accepted accounting principles require government financial statements to include the primary government and its component units. Component units of a governmental entity are legally separate entities for which the primary government is considered to be financially accountable and for which the nature and significance of their relationship with the primary government are such that exclusion would cause the combined financial statements to be misleading. The primary government is considered to be financially accountable if it appoints a majority of an organization's governing body and is able to impose its will on that organization or there is a potential for the organization to provide specific financial benefits to or impose specific financial burdens on the primary government.

The Pennsylvania Turnpike Commission (the Commission) was created as an instrumentality of the Commonwealth of Pennsylvania on May 21, 1937, with powers to construct, operate, and maintain the Turnpike System and to issue Turnpike revenue bonds, repayable solely from tolls and other Commission revenues. The Commission is considered a component unit of the Commonwealth of Pennsylvania (the Commonwealth).

Based on the application of the criteria set forth by the Governmental Accounting Standards Board (GASB), the Commission has determined that it has no component units based on its review of GASB Statements No. 14, *The Financial Reporting Entity*, No. 39, *Determining Whether Certain Organizations are Component Units – an amendment of GASB Statement No. 14*, No. 61, *The Financial Reporting Entity: Omnibus – an amendment of GASB Statements No. 14 and No. 34*, and No. 80, *Blending Requirements for Certain Component Units – an amendment of GASB Statement No. 14*.

The Commission is composed of five members, one of whom is the Secretary of Transportation. The others are appointed by the Governor with the approval of two-thirds of the Senate.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The financial statements of the Pennsylvania Turnpike Commission have been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP) as applied to government units. The GASB is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. The more significant of the Commission's accounting policies are described in the following paragraphs:

Basis of Accounting

The Commission's basic financial statements are presented on the accrual basis of accounting.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Cash Equivalents

For purposes of the statements of cash flows, the Commission considers all highly liquid debt investment securities that mature within three months of acquisition to be cash equivalents.

Investments

Investments are stated at fair value with the exception of certain nonparticipating contracts such as repurchase agreements and other agreements structured as repurchase agreements that are reported at cost, which does not materially differ from fair value. The Commission categorizes its fair value measurements within the fair value hierarchy established by GAAP. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. See Note 4 for further discussion.

Accounts Receivable

Accounts receivable consist primarily of toll revenue receivables from customers and other E-ZPass agencies, fee revenue receivables from customers and reimbursement receivables from other governments. A reserve for uncollectible accounts receivable is established based on specific identification and historical experience.

Capital Assets

Capital assets consist of land and intangible assets (right-of-way easements), buildings, improvements, equipment, infrastructure, and assets under construction. Infrastructure assets are typically items that are immovable such as highways, bridges, and tunnels. Capital assets are stated at cost. Donated capital assets and capital assets received in a service concession arrangement are measured at acquisition value. Interest is capitalized based on average construction costs and the average bond interest rate, less interest earned on invested construction funds. Acquisitions of capital assets valued at $15,000 or greater are capitalized. Depreciation is computed using the straight-line method over the estimated useful lives of the assets. Intangible assets have an indefinite life and, thus, are not depreciated. The following lives are used:

Buildings	10 – 45 years
Improvements other than buildings	15 – 20 years
Equipment	3 – 40 years
Infrastructure	10 – 50 years

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Inventories

Inventories are valued at average cost.

Debt Premium/Discount and Prepaid Insurance Costs

Debt premium/discount is being amortized using the effective interest rate method over the varying terms of the bonds issued. Prepaid bond insurance costs (incurred through bond issuances) are being amortized using the straight-line method over the varying terms of the bonds issued.

Unearned Income

Unearned income is primarily related to E-ZPass customer deposits. E-ZPass customers of the Commission are required to deposit funds in advance of anticipated travel. Since this money is collected prior to the customers' travel and revenue recognition, it is recorded as unearned income. The Commission also had unearned income related to microwave tower leases and an upfront payment from a CMS swap in fiscal year 2015. The Commission had total unearned income of \$75.3 million and \$73.8 million for fiscal years ended May 31, 2018 and 2017, respectively. Unearned income recorded as current liabilities is \$74.6 million and \$72.7 million for fiscal years ended May 31, 2018 and 2017, respectively. Unearned income recorded as other noncurrent liabilities is \$0.7 million and \$1.1 million for the fiscal years ended May 31, 2018 and 2017, respectively.

Accounting Estimates

The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual amounts may differ from those estimates.

Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Pennsylvania State Employees' Retirement System (SERS) and additions to / deductions from SERS' fiduciary net position have been determined on the same basis as they are reported by SERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Deferred Outflows/Inflows of Resources

The Statements of Net Position report separate sections for deferred outflows and deferred inflows of resources. These separate financial statement elements represent a consumption or acquisition of net position that applies to a future period(s) and so will not be recognized as an outflow or inflow of resources (expense/revenue) until then. The Commission has four items that qualify for reporting in these categories: deferred outflows/inflows from its hedging derivative instruments, deferred inflows from its service concession arrangements, deferred outflows/inflows on refunding bonds and deferred outflows/inflows related to pensions.

The deferred outflows/inflows of resources related to hedging derivative instruments represent the cumulative change in their fair values. Deferred inflows from the Commission's service concession arrangements represent unamortized capital contributions from service plaza operators and the present value of minimum guaranteed rent payments. Deferred outflows/inflows on refundings are the result of differences in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt. Deferred outflows/inflows of resources related to pensions are described further in Note 8. The components of deferred outflows of resources and deferred inflows of resources, other than the difference between the projected and actual earnings on investments, are amortized into pension expense over a closed period, which reflects the weighted average remaining service life of all SERS members beginning the year in which the deferred amount occurs (current year). The annual difference between the projected and actual earnings on SERS investments is amortized over a five-year closed period beginning the year in which the difference occurs (current year).

Net Position

GASB Statement No. 63 requires the classification of net position into three components – net investment in capital assets; restricted; and unrestricted. These classifications are defined as follows:

Net Investment in Capital Assets – This component of net position consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt are included.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Net Position *(continued)*

Restricted – This component of net position consists of restricted assets and deferred outflows of resources reduced by liabilities and deferred inflows of resources related to those assets. The restrictions would be imposed by:

- External parties such as creditors, grantors and contributors,
- Laws or regulations of other governments, or
- Restrictions imposed by law through constitutional provisions or enabling legislation.

Unrestricted – This component of net position consists of the net amount of the assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are not included in the determination of net investment in capital assets or the restricted component of net position.

Operating Revenues

Revenues associated with operations of the Turnpike System are considered operating revenues. The principal operating revenues of the Commission are fare revenues from customers. Other operating revenues include: service station, restaurant, property and other rental income as well as revenue from various sponsorship agreements. Also included are electronic toll collection and violation enforcement fees related to the E-ZPass program as well as bad debt expense.

Fare Revenues

Fare revenues are recognized when vehicles exit the Turnpike System. For fiscal years 2018 and 2017, approximately 79.7% and 77.1%, respectively, of the fare revenues were realized through electronic toll collection. For fiscal years 2018 and 2017, approximately 20.3% and 22.9%, respectively, of the fare revenues were realized through cash or credit card collection.

During fiscal year 2016, the Commission implemented Toll By Plate (TBP), a license plate tolling system for customers without a valid E-ZPass. The TBP program offers cashless, nonstop travel at several tolling points throughout the Turnpike System; current locations include: Delaware River Bridge, Beaver Valley Expressway, Keyser Avenue/Clarks Summit and Findlay Connector (as of June 2018). This system utilizes high speed cameras over the roadway that capture license plate images as vehicles pass through the tolling point. The registered owner of the vehicle then receives a flat rate invoice in the mail. For fiscal years 2018 and 2017, approximately 0.8% and 0.6%, respectively, of the fare revenues were realized through TBP, which are included as part of electronic toll collection.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Operating Expenses

Operating expenses relate directly to operating and maintaining the Turnpike System. The principal operating expenses of the Commission are cost of services and depreciation. Other expenses are considered nonoperating expenses.

Cost of Services

Cost of services includes: wages and salaries, benefits, utilities, fuels, professional fees and services, PA State Police services, and purchased goods, including materials and supplies.

Utilization of Resources

When both restricted and unrestricted resources are available for use, it is the Commission's policy to use restricted resources first and then unrestricted resources as needed.

Nonoperating Revenues (Expenses)

Nonoperating revenues include: net investment earnings and other miscellaneous revenues not associated with the operations of the Turnpike System. Nonoperating expenses include: Act 44 and Act 89 payments to PennDOT, capital assets transferred to PennDOT, interest and bond expenses, and other miscellaneous expenses not associated with the operations of the Turnpike System.

Act 44 and Act 89 Payments to PennDOT

The Commission and PennDOT entered into a Lease and Funding Agreement, as amended, as required under the terms of Act 44 and Act 89. See Note 9 for more information regarding Act 44 and Act 89.

Capital Assets Transferred to PennDOT

The Commission and PennDOT entered into an agreement regarding ownership of overhead bridges that carry state roads. Per the agreement, once the Commission replaces these overhead bridges, and after final inspections and supplemental agreements are signed by both parties, ownership and maintenance responsibilities of the bridges are transferred from the Commission to PennDOT. The Commission did not transfer any assets to PennDOT during the fiscal year ended May 31, 2018. The Commission transferred assets with a net book value of $54.7 million to PennDOT during the fiscal year ended May 31, 2017.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Capital Contributions

Capital contributions include: Oil Company Franchise Tax revenues, Motor License Registration Fee revenues, grants from other governments for reimbursement of capital costs for various highway construction projects, capital assets received from other third parties and amortization of deferred inflows of resources for service concession agreements.

Oil Company Franchise Tax Revenues

The Commission receives 14% of the additional 55 mills of the Commonwealth's Oil Company Franchise Tax revenues pursuant to Act 26 established in 1991. The revenues totaled $142.0 million and $123.7 million for the fiscal years ended May 31, 2018 and 2017, respectively. These revenues are kept in a separate fund as required by the applicable bond indenture.

Motor License Registration Fee Revenues

The Commission received $28.0 million in registration fee revenue during each of the fiscal years ended May 31, 2018 and 2017 from the Commonwealth's Motor License Fund. These revenues are kept in a separate fund as required by the applicable bond indenture.

Reimbursements from Other Governments

The Commission receives grants from other governments for reimbursement of costs for various highway construction projects. During the fiscal years ended May 31, 2018 and 2017, the Commission recognized $32.4 million and $57.7 million, respectively, as capital contributions from the other governments. In fiscal year 2018, $1.1 million of the reimbursements were received from the Commonwealth of Pennsylvania with the remainder received from the Federal government. In fiscal year 2017, all of the reimbursements were received from the Federal government.

Other Capital Contributions

The Commission entered into contracts with a food and a fuel provider to totally reconstruct the service plazas. The service plaza operators provide the capital for the reconstruction in exchange for lower rental rates. The Commission recognized capital contribution revenues of $5.4 million and $5.2 million, related to these agreements for the years ended May 31, 2018 and 2017, respectively. See Note 6 for further discussion on the service plazas.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Adoption of Accounting Pronouncements

In August 2015, the GASB issued Statement No. 77, *Tax Abatement Disclosures*. The Commission adopted this Statement for its fiscal year ended May 31, 2017. The adoption of this Statement had no impact on the Commission's financial statements for fiscal year ending May 31, 2017.

In December 2015, the GASB issued Statement No. 78, *Pensions Provided through Certain Multiple-Employer Defined Benefit Pension Plans*. The Commission adopted this Statement for its fiscal year ended May 31, 2017. The adoption of this Statement had no impact on the Commission's financial statements for fiscal year ending May 31, 2017.

In January 2016, the GASB issued Statement No. 80, *Blending Requirements for Certain Component Units – An Amendment of GASB Statement No. 14*. The Commission adopted this Statement for its fiscal year ended May 31, 2017. The adoption of this Statement had no impact on the Commission's financial statements for fiscal year ending May 31, 2017.

In March 2016, the GASB issued Statement No. 82, *Pension Issues – an amendment of GASB Statements No. 67, No. 68, and No. 73*. The Commission adopted this Statement for its fiscal year ended May 31, 2017. The adoption of this Statement had no impact on the Commission's financial statements for fiscal year ending May 31, 2017. See the Required Supplementary Information section of these financial statements for disclosures.

In March 2016, the GASB issued Statement No. 81, *Irrevocable Split-Interest Agreements*. The Commission adopted this Statement for its fiscal year ended May 31, 2018. The adoption of this Statement had no impact on the Commission's financial statements for fiscal years ending May 31, 2018 and 2017.

In May 2017, the GASB issued Statement No. 86, *Certain Debt Extinguishment Issues*. The Commission adopted this Statement for its fiscal year ended May 31, 2018. The adoption of this Statement had no significant impact on the Commission's financial statements for fiscal years ending May 31, 2018 and 2017.

Pending Changes in Accounting Principles

In June 2015, the GASB issued Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* and Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The Pennsylvania Turnpike Commission Retiree Medical Trust is required to adopt Statement No. 74 for its fiscal year ended May 31, 2018. The stand-alone Trust financial statements for the fiscal year ending May 31, 2018 will be issued subsequent to these Commission financial statements. The Commission is required to adopt Statement No. 75 for its fiscal year ended May 31, 2019.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Pending Changes in Accounting Principles *(continued)*

In November 2016, the GASB issued Statement No. 83, *Certain Asset Retirement Obligations*. The Commission is required to adopt Statement No. 83 for its fiscal year ended May 31, 2020.

In January 2017, the GASB issued Statement No. 84, *Fiduciary Activities*. The Commission is required to adopt Statement No. 84 for its fiscal year ended May 31, 2020.

In March 2017, the GASB issued Statement No. 85, *Omnibus 2017*. The Commission is required to adopt Statement No. 85 for its fiscal year ended May 31, 2019.

In June 2017, the GASB issued Statement No. 87, *Leases*. The Commission is required to adopt Statement No. 87 for its fiscal year ended May 31, 2021.

In April 2018, the GASB issued Statement No. 88, *Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements*. The Commission is required to adopt Statement No. 88 for its fiscal year ended May 31, 2020.

In June 2018, the GASB issued Statement No. 89, *Accounting for Interest Cost Incurred Before the End of a Construction Period*. The Commission is required to adopt Statement No. 89 for its fiscal year ended May 31, 2021.

The Commission has not yet completed the various analyses required to estimate the financial statement impact of these new pronouncements.

NOTE 3 INDENTURE REQUIREMENTS AND RESTRICTIONS

The Commission's debt has been issued under the provisions of five separate Trust Indentures (collectively referred to as Indentures):

- A Senior Trust Indenture dated July 1, 1986 which was amended and restated as of March 1, 2001, as supplemented, between the Commission and U.S. Bank, N.A., as successor Trustee;
- An Oil Franchise Tax Trust Indenture dated August 1, 1998, as supplemented, between the Commission and U.S. Bank, N.A., as successor Trustee;
- A Registration Fee Revenue Trust Indenture dated August 1, 2005 between the Commission and U.S. Bank, N.A., as successor Trustee;

NOTE 3 INDENTURE REQUIREMENTS AND RESTRICTIONS *(continued)*

- A Subordinate Trust Indenture dated April 1, 2008, as supplemented, between the Commission and Wells Fargo Bank, N.A., as successor Trustee; and

- A Special Obligation Trust Indenture dated September 1, 2014 between the Commission and U.S. Bank, N.A., as successor Trustee.

Accordingly, certain activities of the Commission are restricted by these Indentures.

NOTE 4 CASH AND INVESTMENTS

Following is a summary of cash and cash equivalents and investments by type:

	May 31,	
	2018	**2017**
	(In Thousands)	
Cash and cash equivalent and investment types		
U.S. Treasuries	$ 361,692	$ 383,019
GNMA mortgages	1,627	2,340
Government agency securities	115,528	164,276
Municipal bonds	91,274	99,557
Corporate obligations	406,115	555,789
Total investment securities	976,236	1,204,981
Investment derivatives	11,572	9,820
Cash and cash equivalents	1,116,007	917,790
Total cash and cash equivalents and investments	$ 2,103,815	$ 2,132,591

Cash and Cash Equivalents

Cash and cash equivalents are held in various financial institutions. Cash and cash equivalents are comprised of demand deposits, money market funds and other highly liquid investments that mature within three months of acquisition. The demand deposits are secured under Pennsylvania Act 72 which secures public deposits in excess of the FDIC insurance limits. Cash equivalents consist of permitted investments in accordance with the Indentures as noted under cash equivalents and investment securities.

NOTE 4 CASH AND INVESTMENTS *(continued)*

Cash and Cash Equivalents *(continued)*

The following summary presents the Commission's cash and cash equivalents:

	Bank Balance	Book Balance
	(In Thousands)	
May 31, 2018		
Demand deposits	$ 18,707	$ 21,846
Money market funds	739,543	739,543
Cash equivalents	354,618	354,618
Total cash and cash equivalents	$ 1,112,868	$ 1,116,007
May 31, 2017		
Demand deposits	$ 33,009	$ 32,924
Money market funds	562,013	562,086
Cash equivalents	322,780	322,780
Total cash and cash equivalents	$ 917,802	$ 917,790

Cash Equivalents and Investment Securities

Following is a description of the valuation methodologies used for investment securities measured at fair value.

- For fiscal years ended May 31, 2018 and 2017, U.S. Treasuries of $361.7 and $383.0 million, respectively, categorized as Level 1 are valued using quoted market prices.

- For fiscal years ended May 31, 2018 and 2017, GNMA mortgages of $1.6 and $2.3 million, respectively, categorized as Level 2 are valued using models based on spreads of comparable securities.

- For fiscal years ended May 31, 2018 and 2017, government agency securities of $115.5 and $164.3 million, respectively, categorized as Level 2 are valued using various market and industry inputs. Callable agency-issued debt securities are valued by benchmarking model-derived prices to quoted market prices and trade data for identical or comparable securities. The fair value of agency mortgage pass-through pool securities is model-driven based on spreads of a comparable security. Collateralized mortgage obligations are valued using quoted market prices and trade data adjusted by subsequent changes in related indices for identical or comparable securities.

NOTE 4 CASH AND INVESTMENTS *(continued)*

Cash Equivalents and Investment Securities *(continued)*

- For fiscal years ended May 31, 2018 and 2017, municipal bonds of $91.3 and $99.6 million, respectively, categorized as Level 2 are valued using recently executed transactions, market price quotations and pricing models that factor in, where applicable, interest rates, bond or credit default swap spreads and volatility.

- For fiscal years ended May 31, 2018 and 2017, corporate obligations of $406.1 and $555.8 million, respectively, categorized as Level 2 are valued using recently executed transactions, market price quotations (where observable), bond spreads, credit default swap spreads, at the money volatility and/or volatility skew obtained from independent external parties such as vendors and brokers adjusted for any basis difference between cash and derivative instruments. The spread data used are for the same maturity as the bond.

- For fiscal years ended May 31, 2018 and 2017, investment derivatives of $11.6 and $9.8 million, respectively, categorized as Level 2 are valued using discounted future net cash flows, mid-market values, nonperformance risk and bid/offer spreads. See Note 9 for further discussion.

The Indentures (as listed in Note 3) permit investments in obligations of, or guaranteed by, the United States of America, its agencies, and its instrumentalities (United States Government obligations); certificates of deposit issued by institutions insured by the FDIC or fully collateralized with United States Government obligations; investment agreements with certain financial institutions; commercial paper and asset-backed securities rated in the highest category by applicable rating agencies; money market funds and auction rate certificates rated in one of the two highest categories by applicable rating agencies; corporate bonds and medium term notes with a minimum rating of “AA-“; investments in bonds or notes issued by any state or municipality which are rated by Moody’s, S&P and Fitch in one of their two highest rating categories; and repurchase agreements with banks or primary government dealers reporting to the Federal Reserve Bank of New York collateralized with obligations of, or guaranteed by, the United States of America.

NOTE 4 CASH AND INVESTMENTS *(continued)*

Cash Equivalents and Investment Securities *(continued)*

The Commission has an investment policy that defines guidelines and operational factors governing the investment of financial assets. The policy generally has the same restrictions regarding permitted investments as the Indentures. Permitted investments include:

- U.S. Treasury Bills, Notes, Bonds, Strips;
- Time Deposits issued by a banking association organized and doing business under the laws of the United States of America or of any state that may have a combined capital and surplus of at least $50,000,000;
- Certificates of Deposit that are fully collateralized and issued by a bank, savings and loan or trust company organized under the laws of the United States or any state thereof;
- Investment Agreements with a bank, a bank holding company or a financial institution that has outstanding long-term indebtedness rated “AA” or better by Moody’s and S&P;
- Obligations of any federal agencies which obligations are backed by the full faith and credit of the United States of America;
- Senior debt obligations rated a minimum “Aa2” by Moody’s and “AA” by S&P and issued by government-sponsored enterprises which include Federal Home Loan Bank, Federal Farm Credit Bank, Federal Home Loan Mortgage Corporation; and Federal National Mortgage Association;
- Mortgage-backed securities issued by an approved federal agency and collateralized mortgage obligations so long as such securities are rated a minimum of “Aa2” by Moody’s and “AA” by S&P;
- Debt obligations of any state or local government entity with securities rated in the “Aa/AA” category;
- Commercial paper rated not less than “A-1/P-1/F-1”, corporate bonds rated “Aa3/AA-“ or better, and asset-backed securities rated “AAA”;
- Repurchase agreements with banks or primary government dealers reporting to the Federal Reserve Bank of New York, collateralized by investments with a minimum 102% valuation in securities of U.S. Treasury bills, notes, bonds, strips, or obligations of any federal agencies or senior debt obligations described above; and

NOTE 4 CASH AND INVESTMENTS *(continued)*

Cash Equivalents and Investment Securities *(continued)*

- Share or Certificates in any short-term investment fund investing not less than 90% of its assets in obligations of U.S. Treasury bills, notes, bonds, strips or time deposits.

All investment ratings shall be based on security ratings at the time of purchase. The portfolio's average credit quality should be rated "Aa3/AA-" or better by Moody's/S&P. Investments are generally purchased with the intent of holding to maturity with flexibility to restructure and rebalance portfolio holdings to manage risk and benefit from market opportunities. The investment policy imposes the following additional limitations:

- Investments in any single federal agency, not carrying the full faith and credit of the U.S. Government, are limited to 35% of the portfolio.

- Investments in certificates of deposit and investment agreements are limited to 30% of the portfolio.

- Combined exposure to commercial paper, corporate bonds, and asset-backed securities, in aggregate, is limited to 35% of the total portfolio.

- Investments in any single issuer, excluding U.S. Treasury and federal agencies, are limited to 5% of the portfolio.

The Commission's investment policy also limits investments to those issues expected to mature within five years, taking into consideration call, prepayment, or other features that may impact maturity. At May 31, 2018 and 2017, the Commission held one security totaling $14.0 million and three securities totaling $21.9 million, respectively, which had a maturity greater than five years. All of these securities were purchased prior to the Commission's adoption of an Investment Policy.

NOTE 4 CASH AND INVESTMENTS *(continued)*

Credit Risk

The Commission's exposure to credit risk for investment securities is as follows:

	Quality Rating as of May 31, 2018					
Investment Type	**AAA**	**AA**	**A**	**A-1**	**Below A**	**Total**
			(In Thousands)			
Government agency securities	$ 1,470	$ 114,058	$ -	$ -	$ -	$ 115,528
Municipal bonds	6,191	27,323	18,421	39,339	-	91,274
Corporate obligations	70,016	310,308	25,506	-	285	406,115
	$ 77,677	$ 451,689	$ 43,927	$ 39,339	$ 285	$ 612,917

	Quality Rating as of May 31, 2017					
Investment Type	**AAA**	**AA**	**A**	**A-1**	**Below A**	**Total**
			(In Thousands)			
Government agency securities	$ 4,870	$ 159,406	$ -	$ -	$ -	$ 164,276
Municipal bonds	9,020	78,741	11,796	-	-	99,557
Corporate obligations	91,567	376,607	32,520	54,713	382	555,789
	$ 105,457	$ 614,754	$ 44,316	$ 54,713	$ 382	$ 819,622

Concentration of Credit Risk

Investments guaranteed by the full faith of the U.S. Government, such as U.S. Treasuries and GNMA mortgages, are not considered to have credit risk and do not require disclosure of credit quality.

As of May 31, 2018 and 2017, the Commission did not have any investments of more than 5% of its consolidated portfolio.

NOTE 4 CASH AND INVESTMENTS *(continued)*

Interest Rate Risk

The effective duration of the Commission's investments, by type, was as follows:

	As of May 31, 2018	
Investment Type	**Fair Value**	**Effective Duration**
	(In Thousands)	*(In Years)*
U.S. Treasuries	$ 361,692	2.8631
GNMA mortgages	1,627	3.8923
Government agency securities	115,528	1.5158
Municipal bonds	91,274	1.7169
Corporate obligations	406,115	1.3215
Total investment securities	$ 976,236	

	As of May 31, 2017	
Investment Type	**Fair Value**	**Effective Duration**
	(In Thousands)	*(In Years)*
U.S. Treasuries	$ 383,019	2.5304
GNMA mortgages	2,340	3.6307
Government agency securities	164,276	2.2602
Municipal bonds	99,557	2.3438
Corporate obligations	555,789	1.5028
Total investment securities	$ 1,204,981	

Custodial Credit Risk

For deposits and investments, custodial credit risk is the risk that in the event of the failure of the counterparty, the Commission will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. At May 31, 2018 and 2017, $18.2 million and $32.5 million, respectively, of the Commission's demand deposits were exposed to custodial credit risk, as they were uninsured and collateralized with securities held by an agent of the pledging financial institution but not in the Commission's name. None of the Commission's investments were exposed to custodial credit risk at May 31, 2018 or 2017.

NOTE 4 CASH AND INVESTMENTS *(continued)*

Investment Derivatives

Following is a summary of the Commission's investment derivatives at May 31, 2018:

	Notional Amount *(Thousands)*	Weighted Avg. Mat. *(Years)*	Effective Date	Maturity Date	Terms	Fair Value *(Thousands)*	Counterparty	Credit Ratings Moody's/ S&P's/Fitch
	$ 67,452	6.4				$ 102	JPMorgan Chase Bank	Aa3/A+/AA-
	60,384	7.1			Pay 67% of 1-month LIBOR, receive	27	Merrill Lynch CS*	A3/A-/A
	67,452	6.4			60.08% of the 10 year maturity of the	102	PNC Bank	A2/A/A+
	75,478	7.1			USD-ISDA Swap Rate	35	Bank of New York Mellon	Aa2/AA-/AA
A	270,766		7/1/2007	12/1/2030		266		
	112,000				Pay SIFMA, receive 63% of 1-month	(2,952)	JPMorgan Chase Bank	Aa3/A+/AA-
	48,000				LIBOR + 20 bps	(1,264)	Bank of New York Mellon	Aa2/AA-/AA
B	160,000	11.1	8/14/2003	12/1/2032		(4,216)		
	80,000				Pay 67% of 1-month LIBOR, receive	213	JPMorgan Chase Bank	Aa3/A+/AA-
	80,000				60.15% of the 10 year maturity of the	213	Royal Bank of Canada	A1/AA-/AA
C	160,000	11.0	9/19/2006	11/15/2032	USD-ISDA Swap rate	426		
D	80,000	0.5	5/15/2014	11/15/2018	Pay 60.15% of the 10 year maturity of the USD-ISDA Swap Rate, receive 67% of 1-month LIBOR	(139)	Wells Fargo	Aa2/A+/AA-
E	127,020	12.8	6/1/2010	6/1/2039	Pay SIFMA, receive 99.68% of 3-month LIBOR	7,103	Goldman Sachs MMDP	Aa2/AA-/NR
F	127,020	12.8	6/1/2010	6/1/2039	Pay SIFMA, receive 99.80% of 3-month LIBOR	8,132	Deutsche Bank	Baa2/A-/BBB+
						$ 11,572		

1-month LIBOR was 2.00070% at May 31, 2018.
3-month LIBOR was 2.32125% at May 31, 2018.
10-year maturity of the USD-ISDA swap rate was 2.884% at May 31, 2018.
SIFMA was 1.06% at May 31, 2018.

* On November 15, 2012, the Commission executed an amendment to the swap agreements to include Merrill Lynch Derivative Products as guarantor. Merrill Lynch Derivative Products credit ratings were Aa3/AA/NR (Moody's/Standard & Poor's/Fitch) as of May 31, 2018.

NOTE 4 CASH AND INVESTMENTS *(continued)*

Investment Derivatives *(continued)*

Following is a summary of the Commission's investment derivatives at May 31, 2017:

Notional Amount *(Thousands)*	Weighted Avg. Mat. *(Years)*	Effective Date	Maturity Date	Terms	Fair Value *(Thousands)*	Counterparty	Credit Ratings Moody's/ S&P's/Fitch
$ 67,452	7.4				$ 782	JPMorgan Chase Bank	Aa3/A+/AA-
60,384	8.1			Pay 67% of 1-month LIBOR, receive 60.08% of the 10 year maturity of the USD-ISDA Swap Rate	672	Merrill Lynch CS*	Baa1/BBB+/A
67,452	7.4				782	PNC Bank	A2/A/A+
75,478	8.1				840	Bank of New York Mellon	Aa2/AA-/AA
270,766		7/1/2007	12/1/2030		3,076		
112,000				Pay SIFMA, receive 63% of 1-month LIBOR + 20 bps	(3,362)	JPMorgan Chase Bank	Aa3/A+/AA-
48,000					(1,442)	Bank of New York Mellon	Aa2/AA-/AA
160,000	12.1	8/14/2003	12/1/2032		(4,804)		
80,000				Pay 67% of 1-month LIBOR, receive 60.15% of the 10 year maturity of the USD-ISDA Swap rate	1,707	JPMorgan Chase Bank	Aa3/A+/AA-
80,000					1,326	Royal Bank of Canada	A1/AA-/AA
160,000	12.0	9/19/2006	11/15/2032		3,033		
80,000	1.0	5/15/2014	5/15/2018	Pay 60.15% of the 10 year maturity of the USD-ISDA Swap Rate, receive 67% of 1-month LIBOR	(400)	Wells Fargo	Aa2/AA-/AA
127,020	13.8	6/1/2010	6/1/2039	Pay SIFMA, receive 99.68% of 3-month LIBOR	4,118	Goldman Sachs MMDP	Aa2/AA-/NR
127,020	13.8	6/1/2010	6/1/2039	Pay SIFMA, receive 99.80% of 3-month LIBOR	4,797	Deutsche Bank	Baa2/A-/A-
					$ 9,820		

1-month LIBOR was 1.06033% at May 31, 2017.
3-month LIBOR was 1.21000% at May 31, 2017.
10-year maturity of the USD-ISDA swap rate was 2.150% at May 31, 2017.
SIFMA was 0.76% at May 31, 2017.

* On November 15, 2012, the Commission executed an amendment to the swap agreements to include Merrill Lynch Derivative Products as guarantor. Merrill Lynch Derivative Products credit ratings were Aa3/AA/NR (Moody's/Standard & Poor's/Fitch) as of May 31, 2017.

See Note 9 for additional disclosures regarding derivative instruments, including a rollforward from the prior-year balances.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Notes to the Financial Statements
Years Ended May 31, 2018 and 2017

NOTE 5 CAPITAL ASSETS

Summaries of changes to capital assets for the years ended May 31, 2018 and 2017 are as follows:

	Balance May 31, 2017 (In Thousands)	Additions	Transfers	Reductions	Balance May 31, 2018
Capital assets not being depreciated (cost)					
Land and intangibles	$ 359,210	$ 21,627	$ -	$ -	$ 380,837
Assets under construction	1,356,951	612,449	(451,708)	-	1,517,692
Total capital assets not being depreciated	1,716,161	634,076	(451,708)	-	1,898,529
Capital assets being depreciated (cost)					
Buildings	978,186	2,061	497	-	980,744
Improvements other than buildings	121,137	3,952	2	131	124,960
Equipment	638,300	8,320	9,156	34,346	621,430
Infrastructure	8,380,745	19,535	442,053	32,840	8,809,493
Total capital assets being depreciated	10,118,368	33,868	451,708	67,317	10,536,627
Less accumulated depreciation for					
Buildings	399,831	22,722	-	-	422,553
Improvements other than buildings	82,984	4,062	-	130	86,916
Equipment	513,449	34,794	-	33,918	514,325
Infrastructure	5,109,383	317,823	-	32,840	5,394,366
Total accumulated depreciation	6,105,647	379,401	-	66,888	6,418,160
Total capital assets being depreciated, net	4,012,721	(345,533)	451,708	429	4,118,467
Total capital assets	$ 5,728,882	$ 288,543	$ -	$ 429	$ 6,016,996

	Balance May 31, 2016 (In Thousands)	Additions	Transfers	Reductions	Balance May 31, 2017
Capital assets not being depreciated (cost)					
Land and intangibles	$ 333,934	$ 25,276	$ -	$ -	$ 359,210
Assets under construction	1,330,627	560,091	(533,767)	-	1,356,951
Total capital assets not being depreciated	1,664,561	585,367	(533,767)	-	1,716,161
Capital assets being depreciated (cost)					
Buildings	968,902	2,457	6,827	-	978,186
Improvements other than buildings	119,256	1,876	5	-	121,137
Equipment	619,779	10,329	12,748	4,556	638,300
Infrastructure	7,908,360	20,969	514,187	62,771	8,380,745
Total capital assets being depreciated	9,616,297	35,631	533,767	67,327	10,118,368
Less accumulated depreciation for					
Buildings	377,111	22,720	-	-	399,831
Improvements other than buildings	78,579	4,405	-	-	82,984
Equipment	481,056	36,575	-	4,182	513,449
Infrastructure	4,826,786	290,643	-	8,046	5,109,383
Total accumulated depreciation	5,763,532	354,343	-	12,228	6,105,647
Total capital assets being depreciated, net	3,852,765	(318,712)	533,767	55,099	4,012,721
Total capital assets	$ 5,517,326	$ 266,655	$ -	$ 55,099	$ 5,728,882

NOTE 5 CAPITAL ASSETS *(continued)*

The Commission incurred interest costs of $20.2 million and $22.3 million for the fiscal years ended May 31, 2018 and 2017, respectively, which qualified for capitalization. For fiscal year 2018, there was a $0.7 million interest income offset; therefore, $19.5 million was capitalized. For fiscal year 2017, there was a $1.3 million interest income offset; therefore, $21.0 million was capitalized.

NOTE 6 SERVICE CONCESSION ARRANGEMENTS

There are 17 service plazas along the Turnpike System providing gasoline and diesel fuel, other automotive supplies and services, and restaurant services. The Commission has entered into long term service plaza redevelopment agreements with HMSHost Restaurants, LLC and Sunoco Retail LLC to design, reconstruct, finance, operate and maintain all of the service plazas. During fiscal year 2018, the agreement with Sunoco Retail LLC was assigned to 7-Eleven, Inc. All terms of the contract remained the same. The Commission has no responsibility for maintaining the service plazas under the agreements. The Commission maintains the ability to approve and/or modify the services that the operators can provide and the rates that can be charged. The service plaza operators are compensated by the users of the services and share a portion of the revenue with the Commission as rental payments. Upon completion of construction, the reconstructed assets are recognized by the Commission. The current contracts with HMSHost Restaurants, LLC and 7-Eleven, Inc. expire on August 25, 2036 and January 31, 2022, respectively. 7-Eleven Inc.'s lease may be extended for three additional five-year periods. The first extension shall be at the discretion of 7-Eleven Inc., and the second and third extensions shall be mutually agreed to by both parties.

As of May 31, 2018, the Commission had capitalized $125.4 million in capital assets representing all 17 service plazas that had fully completed construction and recorded deferred inflows of resources of $91.5 million related to these assets in accordance with GASB Statement No. 60. Also, as of May 31, 2018 and in accordance with GASB Statement No. 60, the Commission recognized a receivable and deferred inflow of resources in the amount of $30.2 million for the present value of guaranteed minimum rent payments scheduled to begin upon completion of all construction. Since the final service plaza was completed at the end of fiscal year 2018, guaranteed minimum rental payment requirements will begin in fiscal year 2019.

As of May 31, 2017, the Commission had capitalized $119.4 million in capital assets representing 16 service plazas that had fully completed construction and recorded deferred inflows of resources of $91.0 million related to these assets in accordance with GASB Statement No. 60. Also, as of May 31, 2017 and in accordance with GASB Statement No. 60, the Commission recognized a receivable and deferred inflow of resources in the amount of $31.7 million for the present value of guaranteed minimum rent payments scheduled to begin upon completion of all construction.

NOTE 7 DEBT

Following is a summary of debt outstanding:

	May 31, 2018	May 31, 2017
	(In Thousands)	
Mainline Senior Debt		
2009 Series A Build America Bonds: Issued $275,000 in July 2009 at 6.105%, due in varying installments through June 1, 2039. Interest paid each June 1 and December 1.	$ 275,000	$ 275,000
2009 Series B: Issued $375,010 in December 2009 at 3.00% to 5.00%, due in varying installments through December 1, 2025. Interest paid each June 1 and December 1.	272,655	312,085
2010 Series B Build America Bonds: Issued $600,000 in September 2010 at 5.5%, due in varying installments through December 1, 2049. Interest paid each June 1 and December 1.	600,000	600,000
2011 Series A: Issued $68,660 in April 2011 at 4.00% to 5.00% due in varying installments through December 1, 2023. Interest paid each June 1 and December 1.	68,660	68,660
2011 Series E: Issued $110,080 in November 2011 at 3.63% to 5.00%, due in varying installments through December 1, 2030. Interest paid each June 1 and December 1. Partially refunded in October 2017. Final refunding in December 2017.	-	110,080
2012 Series A: Issued $200,215 in July 2012 at 3.00% to 5.00%, due in varying installments through December 1, 2042. Interest paid each June 1 and December 1. Partially refunded in October 2017 and December 2017.	131,765	189,550
2013 Series A: Issued $176,075 in January 2013 at a variable rate (based on SIFMA + .60% and .68%, reset weekly, paid the 1st of each month). Due in varying installments through December 1, 2018.	76,075	176,075
2013 Series B: Issued $265,155 in July 2013 at a variable rate (based on SIFMA + .40% to 1.27%, reset weekly, paid the 1st of each month). Due in varying installments through December 1, 2020. Partially refunded in June 2015.	200,000	200,000
2013 Series C: Issued $222,935 in August 2013 at 3.00% to 5.50%, due in varying installments through December 1, 2043. Interest paid each June 1 and December 1. Partially refunded in October 2017 and December 2017.	165,645	222,750
2014 Series A: Issued $236,115 in April 2014 at 4.00% to 5.00%, due in varying installments through December 1, 2044. Interest paid each June 1 and December 1. Partially refunded in October 2017.	231,970	236,115
2014 Series B-1: Issued $444,280 in May 2014 at a variable rate (based on SIFMA + .05% to .98%, reset weekly, paid the 1st of each month). Due in varying installments through December 1, 2021. Partially refunded in June 2015, June 2016 and October 2017.	354,150	394,150
2014 Series Refunding: Issued $239,620 in November 2014 at 5.00%, due in varying installments through December 1, 2034. Interest paid each June 1 and December 1.	239,620	239,620
2014 Series C: Issued $294,225 in December 2014 at 2.25% to 5.00%, due in varying installments through December 1, 2044. Interest paid each June 1 and December 1. Partially refunded in October 2017.	287,210	294,225
2015 Series A-1: Issued $385,095 in June 2015 at 4.00% to 5.00%, due in varying installments through December 1, 2045. Interest paid each June 1 and December 1.	385,095	385,095
2015 Series A-2: Issued $115,635 in June 2015 at a variable rate (based on SIFMA + .15% to .90%, reset weekly, paid the 1st of each month). Due in varying installments through December 1, 2021.	75,000	100,000
2015 Series B: Issued $304,005 in December 2015 at 2.50% to 5.00%, due in varying installments through December 1, 2045. Interest paid each June 1 and December 1.	304,005	304,005
2016 EB-5 Loan (1st-3rd Tranches): Issued $150,000 in March 2016 at 2.00% due on March 18, 2021. Interest is paid each June 1 and December 1.	150,000	150,000
2016 EB-5 Loan (4th Tranche): Issued $50,000 in May 2016 at 2.00%, due on May 12, 2021. Interest is paid each June 1 and December 1.	50,000	50,000
2016 Series A-1: Issued $447,850 in June 2016 at 3.00% to 5.00% due in varying installments through December 1, 2046. Interest is paid each June 1 and December 1.	447,850	447,850
2016 Series A-2: Issued $140,590 in June 2016 at a variable rate (based on 70% of 1-month LIBOR + .60% to .70%, reset weekly, paid the 1st of each month). Due in varying installments through December 1, 2018. Partially refunded in October 2017.	40,590	140,590
2017 Series A-1: Issued $365,895 in October 2017 at 3.00% to 5.00% due in varying installments through December 1, 2047. Interest is paid each June 1 and December 1.	365,895	-
2017 Series A-2 Refunding: Issued $133,060 in October 2017 at 5.00% due in varying installments through December 1, 2030. Interest is paid each June 1 and December 1.	133,060	-
2017 Series B-1: Issued $40,000 in October 2017 at a variable rate (based on 70% of 1-month LIBOR + .40%, reset weekly, paid the 1st of each month). Due on December 1, 2020.	40,000	-

NOTE 7 DEBT *(continued)*

Following is a summary of debt outstanding: *(continued)*

	May 31, 2018	May 31, 2017
	(In Thousands)	
2017 Series B-2: Issued $100,320 in October 2017 at a variable rate (based on 70% of 1-month LIBOR + .50%, reset weekly, paid the 1st of each month). Due on December 1, 2021.	$ 100,320	$ -
2017 Series C: Issued $103,330 in December 2017 at 2.57% due on December 1, 2021. Interest paid each June 1 and December 1.	103,330	-
2018 EB-5 Loan (1st Tranche): Issued $50,000 in February 2018 at 2.00% due on February 21, 2023. Interest is paid each June 1 and December 1.	50,000	-
Total Mainline Senior Debt Payable	5,147,895	4,895,850
Mainline Subordinate Debt (consisting of Subordinate Revenue Debt and Motor License Fund-Enhanced Subordinate Special Revenue Debt)		
Mainline Subordinate Revenue Debt		
2008 Sub-Series A-1 Subordinate Revenue: Issued $176,565 in April 2008 at 4.125% to 5.00%, due in varying installments through June 1, 2038. Interest paid each June 1 and December 1. Partially refunded in February 2016, April 2016 and June 2016. Final refunding in July 2017.	-	2,820
2008 Sub-Series A-2 Subordinate Revenue (Federally Taxable): Issued $68,290 in April 2008 at 3.74% to 6.41%, due in varying installments through June 1, 2022. Interest paid each June 1 and December 1. Partially refunded in October 2016.	11,365	16,610
2008 Sub-Series B-1, B-2 Subordinate Revenue (B-2 Federally Taxable): Issued $233,905 in July 2008 at 5.00% to 7.47%, due in varying installments through June 1, 2036. Interest paid each June 1 and December 1. Sub-series B-1 was partially refunded in February 2016, April 2016, and final refunding in June 2016. Sub-series B-2 was partially refunded in October 2016.	21,205	21,205
2008 Sub-Series C-1, C-3, C-4 Subordinate Revenue (C-4 Federally Taxable): Issued $411,110 in October 2008 at 4.00% to 6.25%, due in varying installments through June 1, 2038. Interest paid each June 1 and December 1. Sub-Series C-3 refunded July 2009 and Sub-Series C-4 refunded June 2010. Sub-Series C-1 was partially refunded in February 2016.	6,550	12,790
2009 Series A Subordinate Revenue: Issued $308,035 in January 2009 at 3.00% to 5.00%, due in varying installments through June 1, 2039. Interest paid each June 1 and December 1. Partially refunded in February 2016, April 2016, June 2016, October 2016, May 2017 and July 2017.	13,940	83,100
2009 Series B Subordinate Revenue: Issued $856,735 in July 2009 at 3.00% to 5.75%, due in varying installments through June 1, 2039. Interest paid each June 1 and December 1. Partially refunded in February 2016, April 2016, June 2016, October 2016 and July 2017.	45,050	204,585
2009 Series C Subordinate Revenue: Issued $99,998 in July 2009 at 6.25%, due in varying installments through June 1, 2033. Interest compounded semi-annually until June 1, 2016, thereafter paid each June 1 and December 1. Series C issued as Capital Appreciation Bonds (CABs). Compounded interest to be paid at maturity or earlier redemption.	152,355	152,355
2009 Series D Subordinate Revenue: Issued $324,745 in October 2009 at 4.00% to 5.50%, due in varying installments through December 1, 2041. Interest paid each June 1 and December 1. Partially refunded in February 2016, June 2016, October 2016, and May 2017.	7,365	7,365
2009 Series E Subordinate Revenue: Issued $200,005 in October 2009 at 6.00% to 6.375%, due in varying installments through December 1, 2038. Interest compounded semi-annually until December 1, 2017, thereafter paid each June 1 and December 1. Series E issued as CABs. The compounded interest to be paid at maturity or earlier redemption.	329,975	319,922
2010 Sub-Series B-1, B-2 Subordinate Revenue: Issued $273,526 in July 2010 at 5.00%. Sub-Series B-1 due in varying installments through December 1, 2037. Sub-Series B-2 issued as convertible CABs. Interest compounded semi-annually until December 1, 2015, thereafter paid each June 1 and December 1. Compounded interest paid at maturity or earlier redemption. Sub-Series B-1 was partially refunded in June 2016 and November 2017. Sub-Series B-2 was partially refunded in June 2016 and October 2016 and final refunding in July 2017.	11,285	199,250
2010 Sub-Series C-1, C-2, C-3 Subordinate Revenue: Issued $138,916 in October 2010 at 4.25% to 5.45%. Sub-Series C-1 due in varying installments through December 1, 2040. Sub-Series C-2 issued as convertible CABs. Interest compounded semi-annually until December 1, 2015, thereafter paid each June 1 and December 1. Compound interest paid at maturity or earlier redemption. Sub Series C-3 issued as CABs with interest paid at maturity or earlier redemption. Sub-series C-2 partially refunded in June 2016, July 2017 and final refunding in November 2017. Sub-Series C-1 partially refunded in December 2017.	23,689	148,636
2011 Series A Subordinate Revenue: Issued $135,655 in April 2011 at 5.00% to 6.50%, due in varying installments through December 1, 2041. Interest paid each June 1 and December 1. Partially refunded in April 2015, June 2016, October 2016 and July 2017. Final refunding in November 2017.	-	24,325

NOTE 7 DEBT *(continued)*

Following is a summary of debt outstanding: *(continued)*

	May 31, 2018	May 31, 2017
	(In Thousands)	
2011 Series B Subordinate Revenue: Issued $126,740 in October 2011 at 2.00% to 5.25%, due in varying installments through December 1, 2041. Interest paid each June 1 and December 1. Partially refunded in December 2017.	$ 66,315	$ 109,510
2012 Series A Subordinate Revenue: Issued $123,545 in April 2012 at 3.00% to 5.00%, due in varying installments through December 1, 2042. Interest paid each June 1 and December 1. Partially refunded in July 2017 and December 2017.	75,240	109,640
2012 Series B Subordinate Revenue: Issued $121,065 in October 2012 at 2.00% to 5.00%, due in varying installments through December 1, 2042. Interest paid each June 1 and December 1. Partially refunded in December 2017.	104,295	108,910
2013 Series A Subordinate Revenue: Issued $71,702 in April 2013 at 3.125% to 5.00%, due in varying installments through December 1, 2043. Sub-Series A-1 Serial bond interest paid each June 1 and December 1. Sub-Series A-1 Term bond interest paid each June 1 and December 1. Sub-Series A-2 issued as convertible CABs. Interest to be compounded semi-annually until December 1, 2018, thereafter paid each June 1 and December 1.	81,719	79,550
2013 Sub-Series B-1, B-2, B-3 Subordinate Revenue: Issued $108,708 in October 2013 at 2.00% to 6.10%, due in varying installments through December 1, 2043. Sub-Series B-1 interest paid each June 1 and December 1. Sub-Series B-2 issued as convertible CABs. Interest to be compounded semi-annually until December 1, 2028, thereafter paid each June 1 and December 1. Compound interest paid at maturity or earlier redemption. Sub-Series B-3 interest paid each June 1 and December 1. Sub-Series B-3 partially refunded in December 2017.	109,775	114,022
2014 Sub-Series A-1, A-2, A-3 Subordinate Revenue: Issued $148,300 in April 2014 at 2.00% to 5.44%, due in varying installments through December 1, 2043. Sub-Series A-1 interest paid each June 1 and December 1. Sub-Series A-2 issued as convertible CABs. Interest to be compounded semi-annually until June 1, 2024, thereafter paid each June 1 and December 1. Compound interest paid at maturity or earlier redemption. Sub-Series B-3 issued as CABs with interest paid at maturity or earlier redemption.	155,626	154,152
2014 Series B Subordinate Revenue: Issued $201,395 in October 2014 at 5.00% to 5.25% due in varying installments through December 1, 2044. Interest paid each June 1 and December 1.	201,395	201,395
2015 Series A-1 Subordinate Revenue: Issued $209,010 in April 2015 at 3.00% to 5.25% due in varying installments through December 1, 2045. Interest is paid each June 1 and December 1.	209,010	209,010
2015 Series A-2 Subordinate Revenue: Issued $50,000 in April 2015 at a variable rate (based on SIFMA + .80%, reset weekly, paid the 1st of each month commencing on December 1, 2015). Due in varying installments through December 1, 2045.	50,000	50,000
2015 Series B Subordinate Revenue: Issued $192,215 in October 2015 at 4.00% to 5.00% due in varying installments through December 1, 2045. Interest is paid each June 1 and December 1. Partially refunded in July 2017, November 2017 and December 2017.	131,160	192,215
2016 First Series Subordinate Revenue Refunding: Issued $360,990 in February 2016 at 3.00% to 5.00% due in varying installments through June 1, 2038. Interest is paid each June 1 and December 1.	360,780	360,990
2016 Series A-1 Subordinate Revenue: Issued $203,700 in April 2016 at 3.00% to 5.00% due in varying installments through December 1, 2046. Interest is paid each June 1 and December 1.	203,700	203,700
2016 Series A-2 Subordinate Revenue: Issued $185,455 in April 2016 at 5.00% due in varying installments through June 1, 2033. Interest is paid each June 1 and December 1.	185,455	185,455
2016 Second Series Subordinate Revenue Refunding: Issued $649,545 in June 2016 at 3.00% to 5.00% due in varying installments through June 1, 2039. Interest is paid each June 1 and December 1.	649,545	649,545
2016 Third Series Sub-Series A Subordinate Revenue Refunding: Issued $255,455 in October 2016 at 3.375% to 5.00% due in varying installments through December 1, 2041. Interest is paid June 1 and December 1.	255,455	255,455
2016 Third Series Sub-Series B Subordinate Revenue Refunding (Federally Taxable): Issued $75,755 in October 2016 at 1.175% to 2.928% due in varying installments through December 1, 2025. Interest is paid June 1 and December 1.	73,750	75,755
2017 Series A Subordinate Revenue: Issued $284,275 in January 2017 at 4.00% to 5.50% due in varying installments through December 1, 2046. Interest is paid each June 1 and December 1.	284,275	284,275
2017 First Series Subordinate Revenue Refunding: Issued $291,850 in May 2017 at a variable rate (based on SIFMA + .60% reset weekly, paid the 1st of each month commencing on June 1, 2017). Due in varying installments through December 1, 2041.	291,850	291,850
2017 Series B-1 Subordinate Revenue: Issued $379,115 in July 2017 at 5.00% To 5.25%. Due in varying installments through June 1, 2047. Interest paid each June 1 and December 1.	379,115	-

NOTE 7 DEBT *(continued)*

Following is a summary of debt outstanding: *(continued)*

	May 31, 2018	May 31, 2017
	(In Thousands)	
2017 Series B-2 Subordinate Revenue: Issued $371,395 in July 2017 at 4.00% to 5.00%. Due in varying installments through June 1, 2039. Interest paid each June 1 and December 1.	$ 371,395	$ -
2017 Second Series Subordinate Revenue Refunding: Issued $150,425 in November 2017 at 5.00%. Due in varying installments through December 1, 2037. Interest paid each June 1 and December 1.	150,425	-
2017 Third Series Subordinate Revenue Refunding: Issued $143,585 in December 2017 at 4.00% to 5.00%. Due in varying installments through December 1, 2040. Interest paid each June 1 and December 1.	143,585	-
Total Mainline Subordinate Revenue Debt Payable	5,156,644	4,828,392
Motor License Fund-Enhanced Subordinate Special Revenue Debt		
2010 Sub-Series A-1, A-2, A-3 Subordinate Motor License Fund-Enhanced Special Revenue: Issued $187,816 in July 2010 at 4.50% to 5.50%. Sub-Series A-1 due in varying installments through December 1, 2038. Interest paid each June 1 and December 1. Sub-Series A-2 issued as convertible CABs. Interest compounded semi-annually until December 1, 2015, thereafter paid each June 1 and December 1. Compound interest paid at maturity or earlier redemption. Sub-Series A-3 issued as CABs. Compounded interest to be paid at maturity or earlier redemption. Sub-Series A-2 was partially refunded in October 2016 and final refunding in November 2017. Sub-Series A-1 was partially refunded in November 2017 and final refunding in December 2017.	39,157	205,684
2010 Sub-Series B-1, B-2, B-3 Subordinate Motor License Fund-Enhanced Special Revenue: Issued $105,299 in October 2010 at 3.95% to 5.125%, due in varying installments through December 1, 2040. Sub-Series B-1 interest paid each June 1 and December 1. Sub-Series B-2 issued as convertible CABs. Interest compounded semi-annually until December 1, 2015, thereafter paid each June 1 and December 1. Compound interest paid at maturity or earlier redemption. Sub-Series B-3 issued as CABs with interest paid at maturity or earlier redemption. Sub-Series B-2 was partially refunded in October 2016 and July 2017 and final refunding in November 2017. Sub-Series B-1 was partially refunded in December 2017.	45,462	114,415
2011 Series A Subordinate Motor License Fund-Enhanced Special Revenue: Issued $102,620 in April 2011 at 5.00% to 6.00%, due in varying installments through December 1, 2041. Interest paid each June 1 and December 1. Partially refunded in October 2016 and July 2017. Final refunding in November 2017.	-	45,760
2011 Series B Subordinate Motor License Fund-Enhanced Special Revenue: Issued $98,910 in October 2011 at 3.00% to 5.00%, due in varying installments through December 1, 2041. Interest paid each June 1 and December 1. Partially refunded in July 2017, November 2017 and December 2017.	30,635	96,855
2012 Series A Subordinate Motor License Fund-Enhanced Special Revenue: Issued $94,935 in April 2012 at 2.00% to 5.00%, due in varying installments through December 1, 2042. Interest paid each June 1 and December 1. Partially refunded in July 2017, November 2017 and December 2017.	37,085	93,570
2012 Series B Subordinate Motor License Fund-Enhanced Special Revenue: Issued $92,780 in October 2012 at 3.00% to 5.00%, due in varying installments through December 1, 2042. Interest paid each June 1 and December 1. Partially refunded in July 2017 and December 2017	70,370	91,440
2013 Series A Subordinate Motor License Fund-Enhanced Special Revenue: Issued $92,465 in April 2013 at 3.00% to 5.00%, due in varying installments through December 1, 2043. Interest paid each June 1 and December 1. Partially refunded in July 2017, November 2017 and December 2017.	69,105	92,465
2013 Sub-Series B-1, B-2, B-3 Subordinate Motor License Fund-Enhanced Special Revenue: Issued $101,731 in October 2013 at 2.00% to 5.875%, due in varying installments through December 1, 2043. Sub-Series B-1 interest paid each June 1 and December 1. Sub-Series B-2 issued as convertible CABs. Interest to be compounded semi-annually until December 1, 2028, thereafter paid each June 1 and December 1. Compound interest paid at maturity or earlier redemption. Sub-Series B-3 interest paid each June 1 and December 1. Partially refunded in July 2017, November 2017 and December 2017.	83,045	105,779
2014 Series A Subordinate Motor License Fund-Enhanced Special Revenue: Issued $59,740 in April 2014 at 4.50% to 4.90%, due in varying installments through December 1, 2044. Series A were issued as convertible CABs. Interest to be compounded semi-annually until December 1, 2021, thereafter paid each June 1 and December 1. Compound interest paid at maturity or earlier redemption.	72,212	68,940
2016 First Series Subordinate Motor License Fund-Enhanced Special Revenue Refunding: Issued $79,865 in October 2016 at 5.00% due in varying installments through December 1, 2036. Interest is paid each June 1 and December 1.	79,865	79,865
2017 First Series Subordinate Motor License Fund-Enhanced Special Revenue Refunding: Issued $45,390 in July 2017 at 5.00%, due in varying installments through June 1, 2028. Interest due each June 1 and December 1.	45,390	-

NOTE 7 DEBT *(continued)*

Following is a summary of debt outstanding: *(continued)*

	May 31, 2018	May 31, 2017
	(In Thousands)	
2017 Second Series Subordinate Motor License Fund-Enhanced Special Revenue Refunding: Issued $243,675 in November 2017 at 5.00%, due in varying installments through December 1, 2041. Interest due each June 1 and December 1.	$ 243,675	$ -
2017 Third Series Subordinate Motor License Fund-Enhanced Special Revenue Refunding: Issued $164,240 in December 2017 at 4.00% to 5.00%, due in varying installments through December 1, 2040. Interest due each June 1 and December 1.	164,240	-
Total Motor License Fund-Enhanced Subordinate Special Revenue Debt	980,241	994,773
Total Mainline Subordinate Debt (consisting of Subordinate Revenue Debt and Motor License Fund-Enhanced Subordinate Special Revenue Debt)	6,136,885	5,823,165
Total Mainline Senior and Subordinate Debt Payable	11,284,780	10,719,015
Oil Company Franchise Tax Senior Debt		
2009 Series A, B, C Oil Company Franchise Tax Revenue: Issued $164,181 in October 2009. Series A issued at 2.00% to 5.85%, due in varying installments through December 1, 2023. Series B (Build America Bonds, Issuer Subsidy, Federally Taxable) issued at 5.85%, due in varying installments through December 1, 2037. Interest paid each June 1 and December 1. Series C issued as CABs at 5.30%. Interest on the CABs is deferred until maturity on December 1, 2039. Sub-Series A-2 partially refunded in September 2016.	159,654	159,901
2013 Series A Oil Company Franchise Tax Revenue Refunding: Issued $27,785 in October 2013 at 2.50% to 5.00%, due in varying installments through December 1, 2024. Interest paid each June 1 and December 1.	23,120	23,120
2016 Series A Oil Company Franchise Tax Revenue Refunding: Issued $198,595 in September 2016 at 4.00% to 5.00% due in varying installments through December 1, 2032. Interest paid each June 1 and December 1.	189,800	198,595
Total Oil Company Franchise Tax Senior Debt Payable	372,574	381,616
Oil Company Franchise Tax Subordinate Debt		
2009 Series D, E Subordinate Oil Company Franchise Tax Revenue: Issued $134,065 in October 2009. Series D issued at 2.00% to 5.00%, due in varying installments through December 1, 2027. Series E (Build America Bonds, Issuer Subsidy, Federally Taxable) issued at 6.378%, due in varying installments through December 1, 2037. Sub-Series D-2 partially refunded in September 2016.	125,075	126,035
2013 Series B Subordinate Oil Company Franchise Tax Revenue: Issued $32,035 in October 2013 at 2.00% and 5.00%, due in varying installments through December 1, 2025. Interest paid each June 1 and December 1.	24,215	24,215
2016 Series B Subordinate Oil Company Franchise Tax Revenue Refunding: Issued $115,395 in September 2016 at 4.00% to 5.00% due in varying installments through December 1, 2032. Interest paid each June 1 and December 1.	109,190	115,395
Total Oil Company Franchise Tax Subordinate Debt Payable	258,480	265,645
Total Oil Company Franchise Tax Senior and Subordinate Debt Payable	631,054	647,261
Motor License Registration Fee Debt		
2005 Series A: Issued $234,135 in August 2005 at 3.25% to 5.25%, due in varying installments through July 15, 2030. Interest paid each January 15 and July 15.	155,085	163,270
2005 Series B, C, D: Issued $231,425 in August 2005 and remarketed in October 2015 with a direct placement at a variable rate (based on 70% of 1-month LIBOR + .85%, reset monthly, paid the 15th of each month), due in varying installments through July 15, 2041.	231,425	231,425
Total Motor License Registration Fee Debt Payable	386,510	394,695
Total Debt Payable	12,302,344	11,760,971
Unamortized premium/discount	1,009,927	808,031
Total debt, net of unamortized premium/discount	13,312,271	12,569,002
Less: Current portion	356,030	391,375
Debt, noncurrent portion	$ 12,956,241	$ 12,177,627

SIFMA was 1.06% on May 31, 2018
1-month LIBOR was 2.00070% on May 31, 2018

SIFMA was 0.76% on May 31, 2017
1-month LIBOR was 1.06033% on May 31, 2017

NOTE 7 DEBT *(continued)*

Changes in debt are as follows:

	Balance at June 1, 2017	Additions	Reductions	Balance at May 31, 2018	Due Within One Year
			(In Thousands)		
Mainline debt	$ 10,719,015	$ 2,316,200	$ 1,750,435	$ 11,284,780	$ 329,245
Oil Company Franchise Tax debt	647,261	1,238	17,445	631,054	18,170
Motor License Registration Fee debt	394,695	-	8,185	386,510	8,615
	11,760,971	2,317,438	1,776,065	12,302,344	356,030
Premium (discount), net	808,031	285,565	83,669	1,009,927	-
Totals	$ 12,569,002	$ 2,603,003	$ 1,859,734	$ 13,312,271	$ 356,030

	Balance at June 1, 2016	Additions	Reductions	Balance at May 31, 2017	Due Within One Year
			(In Thousands)		
Mainline debt	$ 10,059,052	$ 2,259,308	$ 1,599,345	$ 10,719,015	$ 365,745
Oil Company Franchise Tax debt	718,631	315,165	386,535	647,261	17,445
Motor License Registration Fee debt	402,470	-	7,775	394,695	8,185
	11,180,153	2,574,473	1,993,655	11,760,971	391,375
Premium (discount), net	514,396	339,637	46,002	808,031	-
Totals	$ 11,694,549	$ 2,914,110	$ 2,039,657	$ 12,569,002	$ 391,375

Debt service requirements subsequent to May 31, 2018 related to all sections of debt are as follows:

Year Ending May 31	Principal Maturities	Interest	Total
		(In Thousands)	
2019	$ 356,030	$ 545,360	$ 901,390
2020	325,205	538,193	863,398
2021	632,370	527,315	1,159,685
2022	586,435	507,524	1,093,959
2023	295,290	496,595	791,885
2024-2028	1,427,173	2,310,315	3,737,488
2029-2033	1,847,406	1,970,059	3,817,465
2034-2038	2,803,603	1,408,445	4,212,048
2039-2043	2,652,300	843,736	3,496,036
2044-2048	1,238,657	204,603	1,443,260
2049-2053	137,875	11,570	149,445
	$ 12,302,344	$ 9,363,715	$ 21,666,059

NOTE 7 DEBT *(continued)*

The Commission's purpose for issuing debt is as follows:

- Mainline Senior Debt is issued for the purpose of financing the costs of various capital projects in the Commission's Ten-Year Capital Plan and for refunding outstanding Mainline Senior Debt.

- Mainline Subordinate Debt is issued for the purpose of financing a portion of the costs of making payments to the Pennsylvania Department of Transportation in accordance with Act 44 and Act 89 and for refunding outstanding Subordinate Debt. See Note 9 for additional information regarding Act 44 and Act 89.

- Oil Company Franchise Tax Debt and Motor License Registration Fee Debt are issued for the purpose of financing the costs of capital expenditures related to the Mon/Fayette and Southern Beltway expansion projects and to refund outstanding Oil Company Franchise Tax Debt and Motor License Registration Fee Debt.

The issuance of new debt is conducted in accordance with the terms of the applicable Trust Indenture and approval of the Commissioners.

Mainline Debt Requirements and Recent Activity

The Amended and Restated Trust Indenture of 2001 requires that tolls be adequate to provide funds to cover current expenses and (1) provide funds in an amount not less than the greater of 130% of the maximum principal and interest requirements for the succeeding year, or (2) 100% of the maximum principal and interest payments for the next fiscal year plus the amount required for maintenance of the Turnpike System as determined by the Commission's Consulting Engineer. If any deficiencies occur, the Commission is obligated to raise tolls accordingly.

As disclosed in Note 3, the Commission's Trust Indentures impose certain restrictions and requirements. The Commission's Trust Indenture for the Turnpike Subordinate Revenue Bonds requires that the Commission establish and maintain schedules of tolls for traffic over the Turnpike System as required by the Senior Indenture, and in addition, the amount paid into the General Reserve Fund of the Senior Indenture in each fiscal year and for each Commission Payment, will be at least sufficient to provide funds in an amount not less than: (1) 115% of the Annual Debt Service for each fiscal year on account of all outstanding Revenue Bonds and Revenue Bonds Parity Obligations; (2) 100% of the Annual Debt Service for such fiscal year on account of all Outstanding Guaranteed Bonds, Guaranteed Bonds Parity Obligations and Subordinated Indebtedness; and (3) any payment by the Commission required by the Subordinate Indenture for restoring a deficiency in the Debt Service Fund within an 18 month period.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

In fiscal year 2013, the Commission entered into a loan agreement to borrow up to $200 million in four tranches of up to $50 million each through the Immigrant Investor Program (known as the EB-5 visa program) administered by the U.S. Citizenship and Immigration Services. The Commission is borrowing this money to fund a portion of the I-95 Interchange Project. Such debt is issued under the Senior Indenture on parity with the Turnpike Revenue Bonds. As of May 31, 2018, and 2017, the Commission has borrowed all $200 million under the agreement.

In fiscal year 2017, the Commission entered into a second loan agreement to borrow, over a possible eight-year period, up to $800 million in 16 tranches of up to $50 million each through the EB-5 visa program. The Commission is borrowing this money to fund a portion of the costs of certain capital projects included in the Commission's current Ten-Year Capital Plan. Such debt, if borrowed, would be issued under the Senior Indenture on parity with the Turnpike Revenue Bonds. As of May 31, 2018, the Commission has borrowed $50 million under the $800 million loan agreement.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

Under the Commonwealth of Pennsylvania's Act 44 of 2007 (Act 44), the Commission may issue up to $5 billion of Special Revenue Bonds guaranteed by the Commonwealth of Pennsylvania's Motor License Fund. The Special Revenue Bonds authorized by Act 44 are subject to various limitations, including, among others, the following: the aggregate amount of such Special Revenue Bonds is limited to $5 billion; no more than $600 million of Special Revenue Bonds may be issued in any calendar year; debt service on the Special Revenue Bonds shall be payable from any available funds of the Commission, but are additionally secured by amounts payable from the Commonwealth of Pennsylvania's Motor License Fund which is required to pay any debt service shortfall. All Special Revenue Bond debt service payments are subordinate obligations of the Commission payable solely from certain money in, or periodically released from, the General Reserve Fund after meeting all other Commission requirements pursuant to any financial documents, financial covenants, insurance policies, liquidity policies or agreements in effect at the Commission. Pursuant to the Commonwealth of Pennsylvania's Act 89 of 2013, Special Revenue Bonds may not be issued by the Commission to fund any portion of its annual payments obligation to PennDOT after July 1, 2014, although Special Revenue Refunding Bonds may be issued. The outstanding principal related to these Special Revenue Bonds was $980.2 million and $994.8 million at May 31, 2018 and 2017, respectively. The commitment of the Commonwealth of Pennsylvania's Motor License Fund to provide additional security to pay any Special Revenue Bond debt service shortfall shall continue until the retirement or defeasance of any Special Revenue Bonds or until October 13, 2057, whichever is sooner. To date, the Commission has made all required Special Revenue Bond debt service payments. No funds have been drawn or requested from the Commonwealth's Motor License Fund for Special Revenue Bond debt service during the current reporting period or any prior reporting periods. In the event that the Commonwealth's Motor License Fund would be required to make a Special Revenue Bond debt service payment, a provision of the Amended Lease and Funding Agreement, executed between the Commission and PennDOT, requires the Commission to reimburse the Motor License Fund for any Special Revenue Bond debt service payments plus interest accruing to the date of the Commission's failure to pay the debt service. The obligation of the Commission to reimburse the Motor License Fund for any Special Revenue Bond debt service payment is a subordinate obligation of the Commission and is payable only from amounts, if any, in the Commission's General Reserve Fund as permitted by any Commission financing documents, financial covenants, insurance policies, liquidity policies or agreements in effect at the Commission.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

In June 2016, the Commission issued $447,850,000 2016 Series A-1 Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2046. The 2016 Series A-1 Senior Revenue Bonds were issued primarily to provide funds for various capital expenditures set forth in the Commission's current or any prior Ten--Year Capital Plan, including, but not limited to, the reconstruction of roadbed and roadway, the widening, replacing and redecking or certain bridges and the rehabilitation of certain interchanges. The bonds were also issued for payment of the costs of issuance for the 2016 Series A-1 Senior Revenue Bonds.

In June 2016, the Commission issued $140,590,000 2016 Series A-2 Senior Revenue Bonds at a variable rate with a maturity date of December 1, 2018. The 2016 Series A-2 Senior Revenue Bonds were issued primarily for the current refunding of existing variable rate debt which included the Commission's 2012 Series B Variable Rate Revenue Bonds ($70,060,000), the Commission's 2014 Series B-1 Variable Rate Revenue Bonds ($35,050,000) and the Commission's 2014 Series B-2 Variable Rate Revenue Bonds ($34,950,000). The bonds were also issued for payment of the costs of issuance for the 2016 Series A-2 Senior Revenue Bonds.

In June 2016, the Commission issued $649,545,000 2016 Second Series Subordinate Revenue Refunding Bonds at a fixed rate with a maturity date of June 1, 2039. The 2016 Second Series Subordinate Revenue Refunding Bonds were issued to provide funds for the advance refunding of a portion of the Commission's 2008 Series A-1 Subordinate Revenue Bonds ($105,065,000), 2008 Series B-1 Subordinate Revenue Bonds ($50,665,000), 2009 Series A Subordinate Revenue Bonds ($43,355,000), 2009 Series B Subordinate Revenue Bonds ($288,185,000), 2009 Series D Subordinate Revenue Bonds ($16,575,000), 2010 Series B-1 Subordinate Revenue Bonds ($11,850,000), 2010 Series B-2 Subordinate Revenue Bonds ($87,475,000), 2010 Series C-2 Subordinate Revenue Bonds ($17,670,000), 2011 Series A Subordinate Revenue Bonds ($53,375,000), and for paying the cost of issuing the 2016 Second Series Subordinate Revenue Refunding Bonds. The advance refunding of the 2008 Series A-1 Subordinate Revenue Bonds, 2008 Series B-1 Subordinate Revenue Bonds, 2009 Series A Subordinate Revenue Bonds, 2009 Series B Subordinate Revenue Bonds, 2009 Series D Subordinate Revenue Bonds, 2010 Series B-1 Subordinate Revenue Bonds, 2010 Series B-2 Subordinate Revenue Bonds, 2010 Series C-2 Subordinate Revenue Bonds, and 2011 Series A Subordinate Revenue Bonds allowed the Commission to reduce its debt service by approximately $113.5 million. The transaction resulted in an economic gain of approximately $74.4 million.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

In October 2016, the Commission issued $255,455,000 2016 Third Series Sub-Series A Subordinate Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2041. The 2016 Third Series Sub-Series A Subordinate Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2009 Series A Subordinate Revenue Bonds ($20,990,000), 2009 Series B Subordinate Revenue Bonds ($112,560,000), 2009 Series D Subordinate Revenue Bonds ($75,700,000), 2010 Series B-2 Subordinate Revenue Bonds ($35,545,000), 2011 Series A Subordinate Revenue Bonds ($7,925,000), and for paying the cost of issuing the 2016 Third Series Sub-Series A Subordinate Revenue Refunding Bonds. The advance refunding of the 2009 Series A Subordinate Revenue Bonds, 2009 Series B Subordinate Revenue Bonds, 2009 Series D Subordinate Revenue Bonds, 2010 Series B-2 Subordinate Revenue Bonds, and 2011 Series A Subordinate Revenue Bonds allowed the Commission to reduce its debt service by approximately $43.6 million. The transaction resulted in an economic gain of approximately $30.4 million.

In October 2016, the Commission issued $75,755,000 2016 Third Series Sub-Series B Subordinate Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2025. The 2016 Third Series Sub-Series B Subordinate Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2008 Series A-2 Subordinate Revenue Bonds ($18,905,000), 2008 Series B-2 Subordinate Revenue Bonds ($47,785,000) and for paying the cost of issuing the 2016 Third Series Sub-Series B Subordinate Revenue Refunding Bonds. The advance refunding of the 2008 Series A-2 Subordinate Revenue Bonds and 2008 Series B-2 Subordinate Revenue Bonds allowed the Commission to reduce its debt service by approximately $8.7 million. The transaction resulted in an economic gain of approximately $8.0 million.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

In October 2016, the Commission issued $79,865,000 2016 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2036. The 2016 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2010 Series A-2 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($16,520,000), 2010 Series B-2 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($9,705,000), 2011 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($56,860,000) and for paying the cost of issuing 2016 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds. The advanced refunding of the 2010 Series A-2 Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2010 Series B-2 Motor License Fund-Enhanced Subordinate Special Revenue Bonds and 2011 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds allowed the Commission to reduce its debt service by approximately $13.0 million. The transaction resulted in an economic gain of approximately $9.5 million.

In January 2017, the Commission issued $284,275,000 2017 Series A Subordinate Revenue Bonds at a fixed rate with a maturity date of December 1, 2046. The 2017 Series A Subordinate Revenue Bonds were issued primarily to provide funds to finance the costs of making payments to PennDOT in accordance with Act 44 and Act 89, including reimbursing the Commission for certain payments previously made by the Commission to PennDOT and for paying the cost of issuing the 2017 Series A Subordinate Revenue Bonds.

In May 2017, the Commission issued $291,850,000 2017 First Series Subordinate Revenue Refunding Bonds at a variable rate with a maturity date of December 1, 2041. The 2017 First Series Subordinate Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2009 Series A Subordinate Revenue Bonds ($71,475,000) and 2009 Series D Subordinate Revenue Bonds ($215,130,000) and for paying the cost of issuing the 2017 First Series Subordinate Revenue Refunding Bonds. The advance refunding of the 2009 Series A Subordinate Revenue Bonds and 2009 Series D Subordinate Revenue Bonds allowed the Commission to reduce its debt service by approximately $125.6 million. The transaction resulted in an economic gain of approximately $66.5 million.

In July 2017, the Commission issued $379,115,000 2017 Series B-1 Subordinate Revenue Bonds at a fixed rate with a maturity date of June 1, 2047. The 2017 Series B-1 Subordinate Revenue Bonds were issued primarily to finance a portion of the cost of making payments to PennDOT in accordance with Act 44 and Act 89 and paying the cost of issuing the 2017 Series B-1 Subordinate Revenue Bonds.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

In July 2017, the Commission issued $371,395,000 2017 Series B-2 Subordinate Revenue Bonds at a fixed rate with a maturity date of June 1, 2039. The 2017 Series B-2 Subordinate Revenue Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2008 Series A-1 Subordinate Revenue Bonds ($2,820,000), 2009 Series A Subordinate Revenue Bonds ($62,675,000), 2009 Series B Subordinate Revenue Bonds ($138,605,000), 2010 Series B-2 Subordinate Revenue Bonds ($106,615,000), 2010 Series C-2 Subordinate Revenue Bonds ($19,575,000), 2011 Series A Subordinate Revenue Bonds ($18,190,000), 2012 Series A Subordinate Revenue Bonds ($9,310,000), 2015 Series B Subordinate Revenue Bonds ($12,940,000) and for paying the cost of issuing the 2017 Series B-2 Subordinate Revenue Bonds. The advanced refunding of 2008 Series A-1 Subordinate Revenue Bonds, 2009 Series A Subordinate Revenue Bonds, 2009 Series B Subordinate Revenue Bonds, 2010 Series B-2 Subordinate Revenue Bonds, 2010 Series C-2 Subordinate Revenue Bonds, 2011 Series A Subordinate Revenue Bonds, 2012 Series A Subordinate Revenue Bonds and 2015 Series B Subordinate Revenue Bonds allowed the Commission to reduce its debt service by approximately $58.8 million. The transaction resulted in an economic gain of $38.6 million.

In July 2017, the Commission issued $45,390,000 2017 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds at a fixed rate with a maturity date of June 1, 2028. The 2017 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2010 Series B-2 Motor License Fund-Enhanced Subordinate Special Revenue Bonds, ($5,220,000), 2011 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($4,015,000), 2011 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($12,560,000), 2012 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($9,845,000), 2012 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($6,430,000), 2013 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($6,080,000), 2013 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($3,410,000) and for paying the cost of issuing the 2017 First Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds. The advanced refunding of 2010 Series B-2 Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2011 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2011 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2012 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2012 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2013 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2013 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds allowed the Commission to reduce its debt service by approximately $4.4 million. The transaction resulted in an economic gain of $3.2 million.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

In October 2017, the Commission issued $365,895,000 2017 Series A-1 Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2047. The 2017 Series A-1 Senior Revenue Bonds were issued to finance the cost of various capital expenditures set forth in the Commission's Ten-Year Capital Plan, including but not limited to the reconstruction of roadbed and roadway, the widening, replacing and redecking of certain bridges and/or rehabilitation of certain interchanges and paying the costs of issuing the 2017 Series A-1 Senior Revenue Bonds.

In October 2017, the Commission issued $133,060,000 2017 Series A-2 Senior Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2030. The 2017 Series A-2 Senior Revenue Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2014 Series C Senior Revenue Bonds ($7,015,000), 2014 Series A Senior Revenue Bonds ($4,145,000), 2013 Series C Senior Revenue Bonds ($18,240,000), 2012 Series A Senior Revenue Bonds ($26,970,000), 2011 Series E Senior Revenue Bonds ($84,295,000), and paying the costs of issuing the 2017 Series A-2 Senior Revenue Bonds. The advanced refunding of 2014 Series C Senior Revenue Bonds, 2014 Series A Senior Revenue Bonds, 2013 Series C Senior Revenue Bonds, 2012 Series A Senior Revenue Bonds, and 2011 Series E Senior Revenue Bonds allowed the Commission to reduce its debt service by approximately $11.6 million. The transaction resulted in an economic gain of $9.1 million.

In October 2017, the Commission issued $40,000,000 2017 Series B-1 Senior Revenue Bonds at a variable rate with a maturity of December 1, 2020. The 2017 Series B-1 Senior Revenue Bonds were issued primarily for the current refunding of the December 1, 2017 maturity of the Commission's 2014 Series B-1 Variable Rate Senior Revenue Bonds ($40,000,000).

In October 2017, the Commission issued $100,320,000 2017 Series B-2 Senior Revenue Bonds at a variable rate with a maturity of December 1, 2021. The 2017 Series B-2 Senior Revenue Bonds were issued primarily for the current refunding of the December 1, 2017 maturity of the Commission's 2016 Series A-2 Variable Rate Senior Revenue Bonds ($100,000,000) and for paying the cost of issuing the 2017 Series B-1 Senior Revenue Bonds and the 2017 Series B-2 Senior Revenue Bonds.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

In November 2017, the Commission issued $150,425,000 2017 Second Series Subordinate Revenue Refunding Bonds at a fixed rate with a maturity of December 1, 2037. The 2017 Second Series Subordinate Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2010 Series B-1 Subordinate Revenue Bonds ($81,350,000), 2010 Series C-2 Subordinate Revenue Bonds ($54,775,000), 2011 Series A Subordinate Revenue Bonds ($6,135,000), 2015 Series B Subordinate Revenue Bonds ($18,245,000) and for paying the costs of issuing the 2017 Second Series Subordinate Revenue Refunding Bonds. The advanced refunding of 2010 Series B-1 Subordinate Revenue Bonds, 2010 Series C-2 Subordinate Revenue Bonds, 2011 Series A Subordinate Revenue Bond and 2015 Series B Subordinate Revenue Bonds allowed the Commission to reduce its debt service by approximately $22.3 million. The transaction resulted in an economic gain of $13.7 million.

In November 2017, the Commission issued $243,675,000 2017 Second Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2041. The 2017 Second Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2010 Series A-1 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($66,495,000), 2010 Series A-2 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($75,670,000), 2010 Series B-2 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($44,695,000), 2011 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($41,745,000), 2011 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($6,815,000), 2012 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($6,010,000), 2013 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($4,270,000), 2013 Series B-3 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($12,835,000) and for paying the cost of issuing the 2017 Second Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds. The advanced refunding of 2010 Series A-1 Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2010 Series A-2 Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2010 Series B-2 Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2011 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2011 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2012 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2013 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2013 Series B-3 Motor License Fund-Enhanced Subordinate Special Revenue Bonds allowed the Commission to reduce its debt service by approximately $40.1 million. The transaction resulted in an economic gain of $26.5 million.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

In December 2017, the Commission issued $103,330,000 2017 Series C Senior Revenue Bonds at a fixed rate with a maturity date of December 1, 2021. The 2017 Series C Senior Revenue Bonds were issued to provide funds for the advanced refunding of a portion of the Commission's 2011 Series E Senior Revenue Bonds ($25,785,000), 2012 Series A Senior Revenue Bonds ($26,985,000), 2013 Series C Senior Revenue Bonds ($38,385,000) and to pay the cost of issuing the 2017 Series C Senior Revenue Bonds. The refunding of 2011 Series E Senior Revenue Bonds, 2012 Series A Senior Revenue Bonds and 2013 Series C Senior Revenue Bonds allowed the Commission to reduce its debt service by approximately $39.5 million. The transaction resulted in an economic gain of $12.8 million.

In December 2017, the Commission issued $143,585,000 2017 Third Series Subordinate Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2040. The 2017 Third Series Subordinate Revenue Refunding Bonds were issued to provide funds for the advanced refunding a portion of the Commission's 2010 Series C-1 Subordinate Revenue Bonds ($51,595,0000), 2011 Series B Subordinate Revenue Bonds ($39,605,000), 2012 Series A Subordinate Revenue Bonds ($21,610,000), 2012 Series B Subordinate Revenue Bonds ($1,055,000), 2013 Series B-3 Subordinate Revenue Bonds ($5,375,000), 2015 Series B Subordinate Revenue Bonds ($29,870,000) and for paying the cost of issuing the 2017 Third Series Subordinate Revenue Refunding Bonds. The advanced refunding of 2010 Series C-1 Subordinate Revenue Bonds, 2011 Series B Subordinate Revenue Bonds, 2012 Series A Subordinate Revenue Bonds, 2012 Series B Subordinate Revenue Bonds, 2013 Series B-3 Subordinate Revenue Bonds and 2015 Series B Subordinate Revenue Bonds allowed the Commission to reduce its debt service by approximately $22.1 million. The transaction resulted in an economic gain of $10.8 million.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

In December 2017, the Commission issued $164,240,000 2017 Third Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2040. The 2017 Third Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds were issued to provide funds for the advanced refunding a portion of the Commission's 2010 Series A-1 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($26,360,000), 2010 Series B-1 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($20,000,000), 2011 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($45,930,000), 2012 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($39,960,000), 2012 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($13,915,000), 2013 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($13,010,000), 2013 Series B-3 Motor License Fund-Enhanced Subordinate Special Revenue Bonds ($7,255,000) and for paying the cost of issuing the 2017 Third Series Motor License Fund-Enhanced Subordinate Special Revenue Refunding Bonds. The advanced refunding of 2010 Series A-1 Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2010 Series B-1 Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2011 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2012 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2012 Series B Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2013 Series A Motor License Fund-Enhanced Subordinate Special Revenue Bonds, 2013 Series B-3 Motor License Fund-Enhanced Subordinate Special Revenue Bonds allowed the Commission to reduce its debt service by approximately $15.9 million. The transaction resulted in an economic gain of $11.3 million.

In February 2018, the Commission issued $50,000,000 EB-5 Loan (First Tranche) at a fixed rate with a maturity of February 21, 2023. The Commission is borrowing this money to fund a portion of the costs of certain capital projects included in the Commission's current Ten-Year Capital Plan and for paying the cost of issuing the EB-5 Loan.

NOTE 7 DEBT *(continued)*

Mainline Debt Requirements and Recent Activity *(continued)*

Debt service requirements subsequent to May 31, 2018 related to the Mainline debt are as follows:

Year Ending May 31	Principal Maturities	Interest	Total
		(In Thousands)	
2019	$ 329,245	$ 498,775	$ 828,020
2020	297,155	492,855	790,010
2021	604,105	483,398	1,087,503
2022	556,720	465,025	1,021,745
2023	262,735	455,600	718,335
2024-2028	1,235,458	2,132,508	3,367,966
2029-2033	1,603,266	1,845,867	3,449,133
2034-2038	2,476,783	1,355,932	3,832,715
2039-2043	2,542,781	793,565	3,336,346
2044-2048	1,238,657	204,603	1,443,260
2049-2053	137,875	11,570	149,445
	$ 11,284,780	$ 8,739,698	$ 20,024,478

Oil Company Franchise Tax Debt Requirements and Recent Activity

The Oil Company Franchise Tax Revenue Bonds are secured by a pledge and assignment by the Commission to the Trustee of: (1) all proceeds from the Commission's allocation of the Commonwealth of Pennsylvania's Oil Company Franchise Tax; (2) the Commission's right to receive its allocation of the Oil Company Franchise Tax and any portion of the allocation actually received by the Commission; (3) all monies deposited into accounts or funds created by the 1998 Indenture, as supplemented; and, (4) all investment earnings on all monies held in accounts and funds established by the 1998 Indenture.

The 1998 Indenture requires the Commission to petition the General Assembly of the Commonwealth of Pennsylvania for additional funds in the event that the Commission's allocation of the Oil Company Franchise Tax is inadequate to pay maximum principal and interest payments for the succeeding year.

NOTE 7 DEBT *(continued)*

Oil Company Franchise Tax Debt Requirements and Recent Activity *(continued)*

In September 2016, the Commission issued $198,595,000 2016 Series A Oil Franchise Tax Senior Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2032. The 2016 Series A Oil Franchise Tax Senior Revenue Refunding Bonds were issued to provide funds for the advanced refunding of the Commission's 2003 Series C Oil Franchise Tax Senior Revenue Bonds ($160,000,000), the advance refunding of a portion of 2009 Series A-2 Oil Franchise Tax Senior Revenue Bonds ($2,120,000), the current refunding of 2006 Series A Oil Franchise Tax Senior Revenue Bonds ($66,025,000) and for paying the cost of issuing the 2016 Series A Oil Franchise Tax Senior Revenue Refunding Bonds. The advanced refunding of the 2003 Series C Oil Franchise Tax Senior Revenue Bonds, 2009 Series A-2 Oil Franchise Tax Senior Revenue Bonds, and the current refunding of 2006 Series A Oil Franchise Tax Senior Bonds allowed the Commission to reduce its debt service by approximately $44.4 million. The transaction resulted in an economic gain of approximately $37.6 million.

In September 2016, the Commission issued $115,395,000 2016 Series B Oil Franchise Tax Subordinate Revenue Refunding Bonds at a fixed rate with a maturity date of December 1, 2032. The 2016 Series B Oil Franchise Tax Subordinate Revenue Refunding Bonds were issued to provide funds for the advanced refunding of a portion of the 2009 D-2 Oil Franchise Tax Subordinate Revenue Bonds ($860,000), the current refunding of the 2006 Series B Oil Franchise Tax Subordinate Revenue Bonds ($122,205,000), the current refunding of 2003 Series B Oil Franchise Tax Subordinate Revenue Bonds ($16,440,000) and for paying the cost of issuing the 2016 Series B Oil Franchise Tax Subordinate Revenue Refunding Bonds. The advanced refunding of the 2009 Series D-2 Oil Franchise Tax Subordinate Bonds, the current refunding of the 2006 Series B Oil Franchise Tax Subordinate Revenue Bonds and 2003 Series B Oil Franchise Tax Subordinate Revenue Bonds allowed the Commission to reduce its debt service by approximately $31.3 million. The transaction resulted in an economic gain of approximately $24.6 million.

NOTE 7 DEBT *(continued)*

Oil Company Franchise Tax Debt Requirements and Recent Activity *(continued)*

Debt service requirements subsequent to May 31, 2018 related to Oil Company Franchise Tax are as follows:

Year Ending May 31	Principal Maturities	Interest	Total
		(In Thousands)	
2019	$ 18,170	$ 32,490	$ 50,660
2020	18,980	31,697	50,677
2021	18,720	30,786	49,506
2022	19,670	29,871	49,541
2023	21,980	28,909	50,889
2024-2028	129,910	126,532	256,442
2029-2033	164,445	90,857	255,302
2034-2038	226,880	33,518	260,398
2039-2043	12,299	45,701	58,000
	$ 631,054	$ 450,361	$ 1,081,415

Motor License Registration Fee Debt Requirements and Recent Activity

Pursuant to Section 20 of Act 3, the Commonwealth appropriates $28.0 million of Act 3 revenues to the Commission annually. The $28.0 million is payable to the Commission in the amount of $2.3 million per month. The Registration Fee Revenue Bonds are secured by a pledge and assignment by the Commission to the Trustee of any receipts, revenues and other moneys received by the Trustee on or after the date of the Indenture from the Commission's allocation of Act 3 revenues and any income earned on any fund or account established pursuant to the Indenture.

NOTE 7 DEBT *(continued)*

Motor License Registration Fee Debt Requirements and Recent Activity *(continued)*

Debt service requirements subsequent to May 31, 2018 related to Motor License Registration Fee debt are as follows:

Year Ending May 31	Principal Maturities	Interest	Total
		(In Thousands)	
2019	$ 8,615	$ 14,095	$ 22,710
2020	9,070	13,641	22,711
2021	9,545	13,131	22,676
2022	10,045	12,628	22,673
2023	10,575	12,086	22,661
2024-2028	61,805	51,275	113,080
2029-2033	79,695	33,335	113,030
2034-2038	99,940	18,995	118,935
2039-2043	97,220	4,470	101,690
	$ 386,510	$ 173,656	$ 560,166

Defeased Bonds

In both the current and prior years, the Commission defeased certain revenue bonds by placing funds in irrevocable trusts to provide for all future debt service payments on the defeased bonds. Accordingly, the trust account assets and the liability for the defeased bonds were not included in the Commission's financial statements. At May 31, 2018 and 2017, the Commission had $3,713.1 million and $2,345.4 million, respectively, of defeased bonds outstanding.

Arbitrage

The Tax Reform Act of 1986 instituted certain arbitrage restrictions with respect to the issuance of tax-exempt debt bonds after August 31, 1986. Arbitrage regulations deal with the investment of all tax-exempt bond proceeds at an interest yield greater than the interest yield paid to bondholders. Generally, all interest paid to bondholders can be retroactively rendered taxable if rebates are not reported and paid to the Internal Revenue Service (IRS) at least every five years. The arbitrage liability recorded as other noncurrent liabilities is $0.5 million and $0.3 million for the fiscal years ended May 31, 2018 and 2017, respectively.

NOTE 7 DEBT *(continued)*

Swap Payments and Associated Debt

Net swap payments and related debt service requirements related to all sections subsequent to May 31, 2018, assuming current interest rates remain the same for the term of the agreements, are as follows:

Year Ending May 31	Principal Maturities	Interest	Hedging Derivative	Total
		(In Thousands)		
2019	$ 65,000	$ 24,104	$ 26,057	$ 115,161
2020	139,150	22,152	26,031	187,333
2021	200,000	18,502	26,069	244,571
2022	250,320	13,716	26,057	290,093
2023	-	11,024	26,057	37,081
2024-2028	-	55,137	124,834	179,971
2029-2033	34,265	53,892	95,047	183,204
2034-2038	137,230	42,295	54,875	234,400
2039-2043	351,780	14,469	11,163	377,412
	$ 1,177,745	$ 255,291	$ 416,190	$ 1,849,226

Mainline net swap payments and related debt service requirements for the 2013 Series B Senior, 2014 Series B-1 Senior, 2017 Series B-2 Senior and 2017 First Series Subordinate Revenue Refunding bond issues are as follows:

Year Ending May 31	Principal Maturities	Interest	Hedging Derivative	Total
		(In Thousands)		
2019	$ 65,000	$ 17,925	$ 18,787	$ 101,712
2020	139,150	15,962	18,765	173,877
2021	200,000	12,334	18,795	231,129
2022	250,320	7,537	18,787	276,644
2023	-	4,845	18,787	23,632
2024-2028	-	24,231	88,487	112,718
2029-2033	-	24,216	60,116	84,332
2034-2038	37,290	23,300	32,529	93,119
2039-2043	254,560	10,000	5,907	270,467
	$ 946,320	$ 140,350	$ 280,960	$ 1,367,630

NOTE 7 DEBT *(continued)*

Swap Payments and Associated Debt *(continued)*

Motor License net swap payments and related debt service requirements for the 2005 Series B, C, and D bond issues are as follows:

Year Ending May 31	Principal Maturities	Interest	Hedging Derivative	Total
		(In Thousands)		
2019	$ -	$ 6,179	$ 7,270	$ 13,449
2020	-	6,190	7,266	13,456
2021	-	6,168	7,274	13,442
2022	-	6,179	7,270	13,449
2023	-	6,179	7,270	13,449
2024-2028	-	30,906	36,347	67,253
2029-2033	34,265	29,676	34,931	98,872
2034-2038	99,940	18,995	22,346	141,281
2039-2043	97,220	4,469	5,256	106,945
	$ 231,425	$ 114,941	$ 135,230	$ 481,596

As rates vary, variable rate bond interest payments and net swap payments will vary.

NOTE 8 RETIREMENT BENEFITS

General Information about the Pension Plan

Plan Description

Substantially all employees of the Commission participate in the Pennsylvania State Employees' Retirement System (SERS), a cost-sharing multiple-employer defined benefit pension plan established by the Commonwealth to provide pension benefits, including retirement, death, and disability benefits, for employees of state government and certain independent agencies. Membership in SERS is mandatory for most Commission (and other state) employees. Article II of the Commonwealth's constitution assigns the authority to establish and amend the benefit provision of the plan to the General Assembly. SERS issues a publicly available financial report that can be obtained at www.sers.pa.gov.

NOTE 8 RETIREMENT BENEFITS *(continued)*

General Information about the Pension Plan *(continued)*

Benefits Provided

SERS provides retirement, death, and disability benefits. Member retirement benefits are determined by taking years of credited service multiplied by final average salary multiplied by 2% multiplied by class of service multiplier. Commission employees participate in one of the following class of service categories: Class A, Class AA, Class A-3 or Class A-4. According to the State Employees' Retirement Code (SERC), all obligations of SERS will be assumed by the Commonwealth should SERS terminate.

Contributions

Section 5507 of the SERC (71 Pa. C.S. §5507) requires the Commonwealth and other employers whose employees are SERS members to make contributions to the fund on behalf of all active members and annuitants necessary to fund the liabilities and provide the annuity reserves required to pay benefits. SERS funding policy, as set by the board, provides for periodic active member contributions at statutory rates. The SERS funding policy also provides for periodic employer contributions at actuarially determined rates based on SERS funding valuation, expressed as a percentage of annual retirement covered payroll, such that they, along with employee contributions and an actuarially determined rate of investment return, are adequate to accumulate assets to pay benefits when due. However, Act 2010-120 imposed rate increase collars (limits on annual rate increases) on employer contributions. The collar for Commonwealth fiscal year 2015-2016 was 4.5%; effective July 1, 2017, the collar no longer applied. The Commission's retirement contribution, as a percentage of covered payroll, by class is as follows:

Year Ended June 30	Class A	Class AA	Class A-3	Class A-4
2018	27.55%	34.44%	23.80%	23.80%
2017	23.96%	29.95%	20.70%	20.70%
2016	19.89%	24.86%	17.18%	17.18%

Contributions to the pension plan from the Commission were $38.1 and $33.3 million for the fiscal years ended May 31, 2018 and 2017, respectively.

NOTE 8 RETIREMENT BENEFITS *(continued)*

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

At May 31, 2018, the Commission reported a liability of $329.1 million for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2017, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The Commission's proportion of the net pension liability was based on a projected-contribution method. This methodology applies the most recently calculated contribution rates for Commonwealth fiscal year 2018-2019, from the December 31, 2017 funding valuation, to the expected funding payroll for the allocation of the 2017 amounts. At December 31, 2017, the Commission's proportionate share of the net pension liability was 1.90%, which was a decrease of 0.07% from its proportion measured as of December 31, 2016.

For the fiscal year ended May 31, 2018, the Commission recognized pension expense of $42.2 million. At May 31, 2018, the Commission reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
	(In Thousands)	
Differences between expected and actual experience	$ 5,565	$ 6,249
Net difference between projected and actual investment earnings on pension plan investments	-	13,085
Changes of assumptions	16,477	-
Differences between employer contributions and proportionate share of contributions	65	743
Changes in proportion	5,760	14,710
Commission contributions subsequent to measurement date	18,835	-
	$ 46,702	$ 34,787

NOTE 8 RETIREMENT BENEFITS *(continued)*

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions *(continued)*

The $18.8 million reported as deferred outflows of resources related to pensions resulting from Commission contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended May 31, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ended May 31	*(in Thousands)*
2019	$ 4,953
2020	3,010
2021	(5,259)
2022	(9,304)
2023	(320)

At May 31, 2017, the Commission reported a liability of $379.2 million for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2016, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The Commission's proportion of the net pension liability was based on a projected-contribution method. This methodology applies the most recently calculated contribution rates for Commonwealth fiscal year 2017-2018, from the December 31, 2016 funding valuation, to the expected funding payroll for the allocation of the 2016 amounts. At December 31, 2016, the Commission's proportionate share of the net pension liability was 1.97%, which was an increase of .06% from its proportion measured as of December 31, 2015.

NOTE 8 RETIREMENT BENEFITS *(continued)*

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions *(continued)*

For the fiscal year ended May 31, 2017, the Commission recognized pension expense of $53.5 million. At May 31, 2017, the Commission reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	**Deferred Inflows of Resources**
	(In Thousands)	
Differences between expected and actual experience	$ 5,473	$ 8,484
Net difference between projected and actual investment earnings on pension plan investments	31,866	-
Changes of assumptions	23,161	-
Differences between employer contributions and proportionate share of contributions	-	1,054
Changes in proportion	7,560	8,751
Commission contributions subsequent to measurement date	16,299	-
	$ 84,359	$ 18,289

Actuarial Method and Assumptions

Every five years, SERS is required to conduct an actuarial experience study to determine whether the assumptions used in its annual actuarial valuations remain accurate based on current and anticipated demographic trends and economic conditions. The *18th Investigation of Actuarial Experience* study for the period 2011 – 2015 was released in March 2016. The actuary, under oversight of the SERS Board, reviewed economic assumptions (such as the assumed future investment returns and salary increases) as well as demographic assumptions (such as employee turnover, retirement, disability, and death rates). Some assumption adjustments increased projected cost and some decreased projected cost, but the overall result was a slight increase to the net pension liability.

The board adopted the actuarial assumptions set forth in the *18th Investigation of Actuarial Experience* at its March 2016 meeting. The study can be viewed at www.SERS.pa.gov.

NOTE 8 RETIREMENT BENEFITS *(continued)*

Actuarial Methods and Assumptions *(continued)*

In addition to the five-year experience study, SERS reviews its investment return assumption in light of economic conditions every year. The most recent review occurred in July 2018; SERS will continue to use 7.25% for its 2018 annual valuation. During the prior year, SERS actuary recommended, and SERS Board adopted at the April 2017 meeting, a reduction in the targeted investment return rate assumption to 7.25% for the 2016 actuarial valuation from 7.5% used for the 2015 actuarial valuation based on the experience study. In addition, SERS actuary recommended, and SERS Board adopted, a reduction in the inflation rate to 2.6% for the 2016 valuation from 2.75% used for the 2015 actuarial valuation based on the experience study. The change in inflation rate also impacted the general salary growth rate, which was lowered to 2.9% for the 2016 valuation from 3.05% used for the 2015 valuation based on the experience study.

The following methods and assumptions were used in the actuarial valuation for the December 31, 2017 and 2016 measurement dates (except as noted in the previous paragraph):

Actuarial cost method	Entry age
Amortization method	Straight-line amortization of investments over five years and amortization of assumption changes and non-investment gains/losses over the average expected remaining service lives of all employees that are provided benefits
Investment rate of return	7.25% net of manager fees including inflation
Projected salary increases	Average of 5.60% with range of 3.70% - 8.90%, including inflation
Asset valuation method	Fair (market) value
Inflation	2.60%
Mortality rate	Projected RP-2000 Mortality Tables adjusted for actual plan experience and future improvement
Cost-of-living adjustments (COLA)	Ad hoc

NOTE 8 RETIREMENT BENEFITS *(continued)*

Actuarial Methods and Assumptions *(continued)*

The long-term expected real rate of return on pension plan investments is determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of manager fees and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's current and target asset allocation as of December 31, 2017 and 2016 are summarized in the following tables:

As of December 31, 2017:

Asset Class	Target Allocation	Long-term Expected Rate of Return
Private Equity	16.00%	8.00%
Global Public Equity	43.00%	5.30%
Real Estate	12.00%	5.44%
Multi-Strategy	12.00%	5.10%
Fixed Income	14.00%	1.63%
Cash	3.00%	(0.25)%
Total	100.00%	

As of December 31, 2016:

Asset Class	Target Allocation	Long-term Expected Rate of Return
Private Equity	16.00%	8.00%
Global Public Equity	43.00%	5.30%
Real Estate	12.00%	5.44%
Hedge Funds	12.00%	4.75%
Fixed Income	14.00%	1.63%
Cash	3.00%	(0.25)%
Total	100.00%	

NOTE 8 RETIREMENT BENEFITS *(continued)*

Actuarial Methods and Assumptions *(continued)*

The information on the previous page is based on a 7.5% assumed investment rate of return, which was in place during calendar years 2017 and 2016. At its April 2017 meeting, SERS Board approved a reduction in the assumed investment rate of return to 7.25%. As a result of a portfolio examination, several changes were made to the asset allocation during the fourth quarter of calendar year 2017. The portfolio was restructured to add Multi-Strategy as a new asset class. Targets will be updated to reflect the new assumed investment rate of return and asset classes in the *2018-2019 Investment Plan*.

Discount Rate

The discount rate used to measure the total pension liability was 7.25% as of both December 31, 2017 and 2016. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the rates applicable for each member and that employer contributions will be made based on rates determined by the actuary and as set by statute. Based on the assumptions, SERS fiduciary net position was projected to be available to make all projected future benefit payments of current active and non-active SERS members. Therefore, the long-term expected rate of return on SERS investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Commission's Proportionate Share of the Net Pension Liability to Change in the Discount Rate

The following schedule presents the Commission's proportionate share of the 2017 and 2016 net pension liability calculated using the discount rate of 7.25%. It also shows what the Commission's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

	1% Decrease to 6.25%	Current Discount Rate of 7.25%	1% Increase to 8.25%
Commission's share of the net pension liability as of the 12/31/17 measurement date	$ 417,745	$ 329,112	$ 253,187
Commission's share of the net pension liability as of the 12/31/16 measurement date	$ 469,244	$ 379,173	$ 302,040

NOTE 8 RETIREMENT BENEFITS *(continued)*

Pension Plan Fiduciary Net Position

Detailed information about the pension plan's fiduciary net position is available in the separately issued SERS financial report.

Payables to the Pension Plan

As of May 31, 2018 and 2017, the Commission reported a $7.9 million and $16.3 million liability, respectively, within accounts payable and accrued liabilities on the Statement of Net Position for the Commission's share of contributions that had not yet been paid to SERS.

NOTE 9 COMMITMENTS AND CONTINGENCIES

Litigation

On March 15, 2018, several individuals, entities and associations involved in or related to the commercial trucking industry (the Trucking Plaintiffs) filed a class action lawsuit against the Commission, several individuals in their individual capacity and in their official capacity related to the Commission, an individual in her individual capacity and in her official capacity as Chair of the Commission and as Secretary of Transportation, and Governor Wolf, in both his individual and official capacity. The litigation is captioned Owner Operator Independent Drivers Association, Inc. et al. v. Pennsylvania Turnpike Commission et al., No. 1:18-cv-00608-SHR (United States District Court for the Middle District of Pennsylvania). The Trucking Plaintiffs allege that Act 44, as amended by Act 89 (Act 44/89), violates the Commerce Clause and the right to travel under the U.S. Constitution, either facially or as applied, because the Commission improperly imposes Turnpike tolls beyond that which is necessary for the operation and maintenance of the Turnpike System and that the Commission expends toll revenues for purposes other than the operation and maintenance of the Turnpike System.

The lawsuit seeks, among other things, the following injunctive remedies: (1) a permanent injunction enjoining the Commission from issuing any further bonds or incurring any additional debt for the purpose of making Act 44/89 payments; and (2) a permanent injunction prohibiting the Commission from using toll revenues to make payments on outstanding bonds issued to meeting Act 44/89 obligations. Moreover, the lawsuit seeks certain monetary damages including a refund of a portion of certain tolls allegedly imposed up on the Trucking Plaintiffs' use of the Turnpike System in excess of what was reasonably necessary to pay for the cost of operating and maintaining the Turnpike System, together with any legally applicable interest and other compensation.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Litigation *(continued)*

The Commission along with all of the Commonwealth parties are vigorously defending Act 44/89 and the propriety of its use of the Turnpike toll revenues in court. All defendants have filed motions to dismiss the complaint. In addition, the Commission has filed an alternative motion for summary judgement. The Commission's motions assert that Act 44/89, the amount of the tolls and the use of the toll revenues violate neither the Commerce Clause nor the Constitutional right to travel. The Commission also asserts that the uses of toll revenues fall with in Congressional authorization. As of May 31, 2018, no specific liability has been recorded for this lawsuit.

The Commission is a defendant in a number of other legal proceedings pertaining to matters normally incidental to routine operations. Such litigation includes, but is not limited to, claims asserted against the Commission arising from alleged torts, alleged breaches of contracts, and condemnation proceedings. Tort claims against the Commission are generally barred by sovereign immunity, except as waived by statute. Further, to the extent waived, damages for any loss are limited by sovereign immunity to $250,000 for each person and $1,000,000 for each accident. Based on the current status of these other legal proceedings, it is the opinion of Commission management and counsel that they will not have a material effect on the Commission's financial position.

Act 44 and Act 89

On July 18, 2007, Act 44 was enacted, creating a "public-public partnership" between the Commission and PennDOT to provide funding for roads, bridges and transit throughout the Commonwealth. Subsequently, in order to, among other things, effectuate the provisions of Act 44 requiring the Commission to make substantial annual payments to PennDOT, as described below, the Commission and PennDOT entered into a Lease and Funding Agreement (the Funding Agreement), incorporating many of the terms of Act 44. The term of the Funding Agreement is fifty (50) years from October 14, 2007, its effective date.

The Funding Agreement also granted the Commission the option to lease the portion of Interstate 80 (I-80) located in the Commonwealth from PennDOT upon, among other things, the approval of the Federal Highway Administration (FHWA) of the conversion of such portion into a toll road (the Conversion). The Conversion was not approved by FHWA and neither the Commission nor PennDOT appealed the decision. The Commission did not exercise its option to lease such portion of I-80, and the period during which the Commission could exercise its option under the Funding Agreement lapsed on October 14, 2010 without the Commission effectuating Conversion or having the ability to do so in the future. Under existing law, including Act 89, all legal, financial and operational responsibility for I-80 remains with PennDOT.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Act 44 and Act 89 *(continued)*

Pursuant to Act 44 and the Funding Agreement, because the Conversion did not occur, the Commission was obligated to make scheduled annual payments, payable in equal quarterly installments, of $450 million to PennDOT through 2057 with $200 million of the scheduled annual payment supporting road and bridge projects and $250 million supporting transit projects throughout the Commonwealth. See the following paragraphs for subsequent changes to such annual payments.

On November 25, 2013, Act 89 was enacted providing substantial revisions to the Commission's transportation funding obligations under Act 44 and authorized the Commission and PennDOT to immediately amend the Funding Agreement to reflect the statutory provisions of Act 89. On April 4, 2014, the Commission and PennDOT executed Amendment Number One to the Lease and Funding Agreement (the *Act 89 Amendment* and together with the Act 44 Funding Agreement, the *Amended Funding Agreement*). The Amended Funding Agreement terminates on October 14, 2057.

In accordance with Act 89 and the Amended Funding Agreement, the Commission's aggregate annual payment to PennDOT for fiscal year 2014 through fiscal year 2022 is $450 million and, in accordance with Act 89, the Commission must pay at least $30 million of such amount from current revenues with the remainder expected to be funded by bonds issued under the Subordinate Revenue Indenture. Since 2017 and continuing through 2022, by policy the Commission has been providing and anticipates it will continue to provide $50 million from current revenues to fund a portion of its annual payment to PennDOT. Commencing in fiscal year 2023 through the term of the Amended Funding Agreement, the Commission's aggregate annual payment to PennDOT is $50 million, which amount shall be paid from then current revenues of the Commission.

The Commission made payments of $450 million (recorded as nonoperating expense) in both fiscal years reported in these statements.

The Commission is required by the terms of the Amended Funding Agreement and Act 44 to fix and adjust tolls at levels that will generate revenues (together with other available moneys) sufficient to pay, among other things, amounts to PennDOT pursuant to the Amended Funding Agreement when due and other obligations of the Commission, and the Commission has covenanted in the Subordinate Revenue Indenture to set tolls at a level sufficient to meet its coverage obligations taking into account any additional debt incurred in order to make such payments. The Commission believes that Turnpike System revenues should enable it to satisfy its reduced payment obligations as set forth in the Amended Funding Agreement.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Act 44 and Act 89 *(continued)*

Due to the significance of the quarterly payments under Act 44 and Act 89, the Commission currently does not have excess cash from operations to fully fund its required payments to PennDOT from current revenues. Therefore, the Commission plans to continue to increase toll rates annually and to issue debt through fiscal year 2022 to finance the majority of these payments. There can be no assurance that the Commission will be able to continue to issue debt on terms that are acceptable, or at all, to finance these obligations. The sole and exclusive remedy for the failure to make the required payments to PennDOT under the Amended Funding Agreement is that all actions of the Commission taken by a vote of the Commissioners thereafter must be approved by a unanimous vote of all Commissioners until such time as the payment is made. However, a unanimous vote is not required if it would prevent the Commission from complying with covenants with “current bondholders, debt holders or creditors having such status as of the Effective Date,” which under the Amended Funding Agreement is defined as October 14, 2007. These voting procedures have not become effective as the Commission has not missed any payments under the Amended Funding Agreement. See Note 15 (Subsequent Events) regarding an additional Amendment to this agreement.

Act 44 and Act 89 provide that all required payments under the Amended Funding Agreement or as required by Act 44 or Act 89 shall be subordinate obligations of the Commission payable solely from the General Reserve Fund after meeting all other Commission requirements pursuant to any financial documents, financial covenants, liquidity policies or agreements in effect at the Commission.

Open Purchase Order Commitments

The Commission had open purchase order commitments of approximately $1,125.1 million and $969.9 million at May 31, 2018 and 2017, respectively.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps

The fair value and notional amounts of derivative instruments outstanding at May 31, 2018 and May 31, 2017, classified by type and the changes in fair value of such derivative instruments for the years then ended as reported in the fiscal year 2018 and fiscal year 2017 financial statements are as follows:

		Changes in Fair Value		Fair Value at May 31, 2018		
	May 31, 2017	**Classification**	**Amount**	**Classification**	**Amount**	**Notional**
			(In Thousands)		*(In Thousands)*	
Cash flow hedges						
Pay-fixed interest rate swap	$ (104,125)	Deferred (outflows)/inflows	$ 37,695	Noncurrent liabilities	$ (66,430)	$ 977,305
Investment derivative instruments						
Basis swaps	9,820	Investment earnings/(losses)	1,752	Long-term investments	11,572	924,806
Total PTC	$ (94,305)		$ 39,447		$ (54,858)	

		Changes in Fair Value		Fair Value at May 31, 2017		
	May 31, 2016	**Classification**	**Amount**	**Classification**	**Amount**	**Notional**
			(In Thousands)		*(In Thousands)*	
Cash flow hedges						
Pay-fixed interest rate swap	$ (133,791)	Deferred (outflows)/inflows	$ 29,666	Noncurrent liabilities	$ (104,125)	$ 977,305
Investment derivative instruments						
Basis swaps	13,923	Investment earnings/(losses)	(4,103)	Long-term investments	9,820	924,806
Total PTC	$ (119,868)		$ 25,563		$ (94,305)	

Fair Values

At May 31, 2018 and 2017, the fair values of the Commission's derivative instruments were estimated beginning with the mid-market valuation. The mid-market valuation of the Commission's derivative instruments was estimated using the zero-coupon discounting method. This method calculates the future net settlement payments required by the swap, assuming that the current forward rates implied by the yield curve are the market's best estimate of future spot interest rates. These payments are then discounted using the spot rates implied by the current yield curve for a hypothetical zero-coupon rate bonds due on the date of each future net settlement payments on the swaps.

The fair value under GASB 72 is then incorporated into the above described mid-market valuation: 1) the credit risk of either the Commission or its counterparty (for a liability position or asset position, respectively) i.e. nonperformance risk; and 2) the bid/offer spread that would be charged to the Commission in order to transact. As the valuations are based on discounting future net cash flows to a single current amount, the approach being utilized is the income approach. The fair values rely primarily on Level 2 Inputs (observable inputs) – such as LIBOR rates to build the yield curve.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps *(continued)*

Recent Activity

On June 21, 2016, the Commission issued 2016 Series A-2 Senior Revenue Bonds primarily to refund various maturing variable rate bonds. The 2016 Series A-2 Senior Revenue Bonds specifically included refunding the December 1, 2016 maturities of the 2012 Series B Variable Rate Revenue Bonds and the 2014 Series B-2 Variable Rate Revenue Bonds. As a result, the $86.3 million of the Commission's Mainline LIBOR Fixed Payer swaps associated with those bonds were deemed terminated and are now associated with the 2016 Series A-2 Senior Revenue Bonds. The fair values at the time of deemed termination were a negative $2.7 million with respect to the JP Morgan swap, a negative $1.3 million with respect to the Bank of America swap, and a negative $2.5 million with respect to the Bank of New York Mellon swap. These amounts are being amortized until December 1, 2030 which is the final maturity of the swaps.

On September 7, 2016, the Commission issued 2016 Series A Senior Oil Franchise Tax Revenue Refunding Bonds to provide funds for the advance refunding of its 2003 Series C Senior Oil Franchise Tax Revenue Bonds. The Commission's Oil Franchise Tax investment derivatives with a total notional amount of $400.0 million are now associated with the 2009 Series B and 2016 Series A Senior Oil Franchise Tax Revenue Bonds.

On April 26, 2017, the Commission entered into a Cancellable LIBOR Fixed Payer swap with Royal Bank of Canada. The swap was executed in order to hedge the interest rate on the Commission's 2017 First Series Subordinate Revenue Refunding Bonds. The Commission purchased an option to terminate the trade at par beginning on June 1, 2022 and semiannually on each December 1st and June 1st thereafter. Under the terms of the transaction, the Commission pays a fixed rate of 2.5125% and receives 70% of 3-month LIBOR. The initial notional amount of this swap was $291.9 million.

On October 12, 2017, a portion of the Commission's 2016 Series A-2 Variable Rate Senior Revenue Bonds were refunded. The Commission's 2016 Series A-2 Variable Rate Senior Revenue Bond related swaps were deemed terminated and are now associated with portions of the 2017 Series B-2 Senior Revenue Bonds. The fair values at the time of the deemed termination were $1,739,156 with respect to the JP Morgan swap, $870,135 with respect to the Bank of America swap, and $870,161 with respect to the Bank of New York Mellon swap. These amounts are being amortized until December 1, 2030 which is the final maturity of the swaps.

On May 15, 2018, the partial reversal of the Royal Bank of Canada LIBOR/CMS Basis Swap expired. As a result, the ongoing cash flows under the transaction have resumed. The notional amount on that investment derivative is $80 million.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps *(continued)*

Following is a summary of the hedging derivatives in place as of May 31, 2018 and 2017. All items are fixed interest rate swap types. These hedging derivatives contain risks and collateral requirements as described below (in thousands).

As of May 31, 2018:

Objective	Notional Amount	Effective Date	Maturity Date	Terms	Counterparty	Moody's/ S&P/Fitch	Book Fair Value
1. Hedge of changes of cash	$ 100,000	5/20/2014	12/1/2038		Goldman Sachs MMDP	Aa2/AA-/NR	$ (6,452)
flows of 2014 Series B-1 Bonds	100,000	5/20/2014	12/1/2038	Pay 4.887%,	Merrill Lynch CS*	A3/A-/A	(6,463)
(formerly 2008 Series B-1 &	100,000	5/20/2014	12/1/2038	receive SIFMA	Morgan Stanley CS	A3/BBB+/A	(6,448)
2011 Series C Bonds)	300,000						(19,363)
2. Hedge of changes of cash				Pay 4.403%,			
flows of 2017 Series B-2 Bonds	21,576	10/12/2017	12/1/2030	receive 67.00%	Bank of America*	Aa3/A+/A+	643
(formerly 2016 Series A-2, 2014	21,576	10/12/2017	12/1/2030	of 1-month	Bank of New York Mellon	Aa2/AA-/AA	643
Series B-2 & 2012 Series B	43,125	10/12/2017	12/1/2030	LIBOR	JPMorgan Chase Bank	Aa3/A+/AA-	1,269
Bonds)	86,277						2,555
3. Hedge of changes of cash	16,944	7/23/2013	12/1/2030	Pay 4.403%,	Bank of America*	Aa3/A+/A+	(126)
flows of 2013 Series B Bonds	33,865	7/23/2013	12/1/2030	receive 67.00%	JPMorgan Chase Bank	Aa3/A+/AA-	(256)
(formerly 2009 Series C & 2011	16,944	7/23/2013	12/1/2030	of 1-month	Bank of New York Mellon	Aa2/AA-/AA	(126)
Series D Bonds)	67,753			LIBOR			(508)
4. Hedge of changes of cash	57,860	12/30/2013	7/15/2041		Bank of New York Mellon	Aa2/AA-/AA	(8,055)
flows on the 2005 Series B, C,	57,845	8/17/2005	7/15/2041	Pay 4.2015%,	JPMorgan Chase Bank	Aa3/A+/AA-	(14,357)
D, Bonds	57,860	8/17/2005	7/15/2041	receive SIFMA	Merrill Lynch CS*	A3/A-/A	(14,360)
	57,860	8/17/2005	7/15/2041		Morgan Stanley CS	A3/BBB+/A	(14,360)
	231,425						(51,132)
5. Hedge of changes of cash flows on the 2017 Series A Subordinate Bonds	291,850	5/2/2017	12/1/2041	Pay 2.5125%, receive 70.00% of 3-month LIBOR	Royal Bank of Canada	A1/AA-/AA	2,018
Total	$ 977,305						$ (66,430)

1-month LIBOR was 2.00070% at May 31, 2018
3-month LIBOR was 2.32125% at May 31, 2018
SIFMA was 1.06% at May 31, 2018

* On November 15, 2012, the Commission executed an amendment to the swap agreements to include Merrill Lynch Derivative Products as guarantor. Merrill Lynch Derivative Products credit ratings were Aa3/AA/NR (Moody's/S&P/Fitch) as of May 31, 2018.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps *(continued)*

As of May 31, 2017:

Objective	Notional Amount	Effective Date	Maturity Date	Terms	Counterparty	Moody's/ S&P/Fitch	Book Fair Value
Hedge of changes of cash	$ 100,000	5/20/2014	12/1/2038		Goldman Sachs MMDP	Aa2/AA-/NR	$ (10,975)
flows of 2014 Series B-1 Bonds	100,000	5/20/2014	12/1/2038	Pay 4.887%,	Merrill Lynch CS*	Baa1/BBB+/A	(10,983)
(formerly 2008 Series B-1 &	100,000	5/20/2014	12/1/2038	receive SIFMA	Morgan Stanley CS	A3/BBB+/A	(10,971)
2011 Series C Bonds)	300,000						(32,929)
Hedge of changes of cash	21,576	6/2/2014	12/1/2030	Pay 4.403%,	Bank of America*	A1/A+/A+	681
flows of 2016 Series A-2 Bonds	21,576	6/2/2014	12/1/2030	receive 67.00%	Bank of New York Mellon	Aa2/AA-/AA	682
(formerly 2014B-2 & 2012B	43,125	6/2/2014	12/1/2030	of 1-month	JPMorgan Chase Bank	Aa3/A+/AA-	1,337
Bonds)	86,277			LIBOR			2,700
Hedge of changes of cash	16,944	7/23/2013	12/1/2030	Pay 4.403%,	Bank of America*	A1/A+/A+	(837)
flows of 2013 Series B Bonds	33,865	7/23/2013	12/1/2030	receive 67.00%	JPMorgan Chase Bank	Aa3/A+/AA-	(1,675)
(formerly 2009 Series C & 2011	16,944	7/23/2013	12/1/2030	of 1-month	Bank of New York Mellon	Aa2/AA-/AA	(837)
Series D Bonds)	67,753			LIBOR			(3,349)
Hedge of changes of cash	57,860	12/30/2013	7/15/2041		Bank of New York Mellon	Aa2/AA-/AA	(10,731)
flows on the 2005 Series B, C,	57,845	8/17/2005	7/15/2041	Pay 4.2015%,	JPMorgan Chase Bank	Aa3/A+/AA-	(17,057)
D, Bonds	57,860	8/17/2005	7/15/2041	receive SIFMA	Merrill Lynch CS*	Baa1/BBB+/A	(17,058)
	57,860	8/17/2005	7/15/2041		Morgan Stanley CS	A3/BBB+/A	(17,058)
	231,425						(61,904)
				Pay 2.5125%,			
Hedge of changes of cash				receive 70.00%			
flows on the 2017 Series A				of 3-month			
Subordinate Bonds	291,850	5/2/2017	12/1/2041	LIBOR	Royal Bank of Canada	A1/AA-/AA	(8,643)
Total	$ 977,305						$ (104,125)

1-month LIBOR was 1.06033% at May 31, 2017
3-month LIBOR was 1.21000% at May 31, 2017
SIFMA was 0.76% at May 31, 2017

* On November 15, 2012, the Commission executed an amendment to the swap agreements to include Merrill Lynch Derivative Products as guarantor. Merrill Lynch Derivative Products credit ratings were Aa3/AA/NR (Moody's/S&P/Fitch) as of May 31, 2017.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps *(continued)*

- ***Credit Risk*** – The Commission is at risk that a counterparty will not fulfill their obligations under the agreement. Specifically, the Commission is exposed to credit risk for hedging derivatives that have positive full values from the counterparty and investment derivatives (see Note 4) that have positive fair values. At May 31, 2018, the Commission is exposed to credit risk with respect to the (A), (C), (E) and (F) investment derivatives listed in Note 4 as well as hedging derivatives 2 and 5. However, should interest rates change and the fair values of the other swaps become positive, the Commission would have additional credit risk exposure.

  To mitigate the exposure to credit risk, the swap agreements include collateral provisions in the event of downgrades to the swap counterparties' credit ratings along with the fair values of the swaps exceeding certain thresholds specified in the swap agreement. The Commission's derivative agreements contain netting provisions, under which transactions executed with a single counterparty within a credit are netted to determine collateral amounts. Collateral would be posted with a third-party custodian and would be in the form of cash, U.S. Treasury Obligations, or U.S. Government Agency Securities. At May 31, 2018, the Commission had net credit risk exposure to four counterparties pursuant to the provisions of the respective derivative agreements. One counterparty has posted collateral in the amount of $8.4 million. The other three counterparties were not required to post collateral as their values at year end were below the collateral threshold levels.

- ***Interest Rate Risk*** – The Commission will be exposed to variable interest rates if the swap provider for a variable-to-fixed swap agreement defaults or if a variable-to-fixed swap is terminated.

- ***Market-access Risk*** – The Commission will be exposed to market-access risk for the hedging derivatives 1, 2 and 3 in the summary of hedging derivatives table because the maturity date of these derivatives is longer than the maturity date of the related debt.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps *(continued)*

- ***Basis Risk*** – The Commission is exposed to basis risk on its basis swaps because the variable-rate payments received by the Commission on these derivative instruments are based on rates other than the interest rates the Commission pays on these derivative instruments. See the investment derivative schedule in Note 4 for the terms of the interest rate swap agreements. The Commission's exposure to basis risk for the swaps listed in Note 4 is as follows:

  (A) – To the extent 67% of 1-month LIBOR exceeds 60.08% of the 10-year maturity of the USD-ISDA Swap Rate

  (B) – To the extent SIFMA exceeds 63% of 1-month LIBOR + 20 basis points

  (C) – To the extent 67% of 1-month LIBOR exceeds 60.15% of the 10-year maturity of the USD-ISDA Swap Rate

  (D) – To the extent 60.15% of the 10-year maturity of the USD-ISDA Swap Rate exceeds 67% of 1-month LIBOR

  (E) – To the extent SIFMA exceeds 99.68% of 3-month LIBOR

  (F) – To the extent SIFMA exceeds 99.80% of 3-month LIBOR

- ***Termination Risk*** – The swap agreements may be terminated due to a number of circumstances and the Commission retains the option to terminate the swaps at any time. If a swap agreement is terminated (by either party), the respective variable-rate bond would no longer carry a synthetic fixed interest rate. Also, if at the time of termination, the swap had a negative fair value, the Commission would be liable to the swap counterparty for a liability equal to the swap's full value. It is generally the Commission's intent at the time of swap execution to maintain the swap transactions for the life of the financing.

NOTE 9 COMMITMENTS AND CONTINGENCIES *(continued)*

Interest Rate Swaps *(continued)*

- ***Collateral Requirements*** – The Commission's derivative instruments related to its Mainline Turnpike Revenue Bonds require the Commission to post collateral in the form of eligible securities or cash if its senior credit rating falls below specified thresholds. These thresholds vary from agreement to agreement, with most in the "A3" (Moody's Investors Service) and "A-" (Standard & Poor's and Fitch Rating Service) levels. The Commission's Mainline senior bond rating was "A1" from Moody's, "A+" from Standard & Poor's and "A+" from Fitch at May 31, 2018. The Commission's Mainline subordinate bond rating was "A3" from Moody's, "A" from Standard & Poor's and "A-" from Fitch at May 31, 2018. Based on May 31, 2018 full values, the Commission could be required to post $123.2 million in collateral for its derivate instruments if its ratings fall below the agreement thresholds.

  The Commission's derivative instruments related to its Oil Company Franchise Tax Revenue Bonds require the Commission to post collateral in the form of eligible securities or cash if its credit rating falls below specifies thresholds. These thresholds vary from agreement to agreement, with most in the "A3" (Moody's Investors Service) and "A-" (Standard & Poor's and Fitch Rating Service) levels. The Commission's Oil Company Franchise Tax senior bond rating is currently "Aa3" from Moody's and "AA" from Standard & Poor's. Based on May 31, 2018 full values, the Commission could be required to post $3.9 million in collateral for its derivative instruments if its ratings fall below the agreements thresholds.

  The Commission's derivative instruments related to its Motor Vehicle Registration Fee Revenue Bonds require the Commission to post collateral in the form of eligible securities or cash if its credit rating falls below specified thresholds and/or in the event of certain uncured insurer events of default. These thresholds vary from agreement to agreement. The Commission's Motor Vehicle Registration Fee Revenue bond rating was "Aa3" from Moody's, "A+" from Standard & Poor's and "AA-" from Fitch at May 31, 2018. Based on May 31, 2018 full values, the Commission could be required to post $62.2 million in collateral for its derivative instruments if its ratings fall below the agreement thresholds.

NOTE 10 RELATED-PARTY TRANSACTIONS

The Commission incurred charges of $51.9 million and $49.7 million for the fiscal years ended May 31, 2018 and 2017, respectively, primarily related to its use of the Commonwealth's State Police in patrolling the Turnpike System.

In fiscal year 2018, $1.1 million was received from the Commonwealth of Pennsylvania for reimbursement of a portion of the costs of construction of the Amos K. Hutchinson Bypass. No construction reimbursements were received from the Commonwealth during fiscal year 2017.

NOTE 11 POSTEMPLOYMENT BENEFITS

Plan Description

The Commission maintains a welfare plan program (the Plan), for the purpose of providing benefits to eligible retirees and their dependents. The Plan is a single employer, defined benefit plan. The Commission established the Pennsylvania Turnpike Commission Retiree Medical Trust (the Trust) on May 30, 2008 as an irrevocable trust, tax-exempt under the Internal Revenue Code, to provide funding of the Plan's other post-employment benefits (OPEB).

The Trust is administered by the Trustees. PNC Bank serves as custodian of the assets of the Trust. Payments from the Trust are made by the custodian at the direction of the Trustees. The Trust's financial statements are not included in the financial statements of a public employee retirement system. The Trust issues a stand-alone financial report, which can be obtained by contacting the Commission's Accounting & Financial Reporting Department.

Plan benefit provisions and retiree and dependent contribution rates are established and may be amended by the Commission.

Management and Supervisory Union Employees/Retirees

The benefits funded by the Trust include certain post-employment medical, prescription drug, dental and vision benefits to management and supervisory union employees based upon their date of hire and years of service. Eligibility categories include:

- Employees hired before March 1, 2016, who have reached 20 years of service and are under age 60; benefit eligibility changes from 20 to 10 years for retirees 60 years of age or older. The last five years of service must be with the Commission.

NOTE 11 POSTEMPLOYMENT BENEFITS *(continued)*

Plan Description *(continued)*

Management and Supervisory Union Employees/Retirees (continued)

- Employees hired on or after March 1, 2016, who have reached 30 years of service and are under age 60; benefit eligibility changes from 30 to 25 years for retirees 60 years of age or older. The last 10 years of service must be with the Commission. (Some current and previous Commonwealth employees hired on or after this date would be grandfathered under the first eligibility category.)

The same coverage is provided to surviving spouses or domestic partners and dependents of management and supervisory union retirees who retired on or after March 1, 2001. Surviving spouses or domestic partners of retirees who retired prior to March 1, 2001 may purchase medical coverage at the group rate and dependents are offered coverage under COBRA. Medicare Part B premiums are paid by the retiree, spouse or dependent if age 65 or over, or under age 65 and disabled.

Non-Supervisory Union Employees/Retirees

The benefits also include certain post-employment medical and prescription drug benefits to non-supervisory union employees who had satisfied the age and/or Credited Service eligibility requirements in the applicable collective bargaining agreement. Credited Service (Credited Service) is defined as one year of service earned when an employee works 1,650 hours or more in a calendar year.

- For Local 30 professionals who were hired prior to January 1, 2011 and Local 250 and 77 employees who were hired prior to January 27, 2016, the earlier of completion of 20 years of Credited Service or the later of attainment of age 60 and completion of 10 years of Credited Service. The last five years of Credited Service must be with the Commission.

- For Local 30 professionals who were hired on or after January 1, 2011 and Local 250 and 77 employees who were hired on or after January 27, 2016, the earlier of completion of 30 years of Credited Service or the later of attainment of age 60 and completion of 25 years of Credited Service. The last 10 years of Credited Service must be with the Commission.

The same coverage is provided to spouses or domestic partners and dependents of eligible non-supervisory union retirees until the death of the retiree. Surviving spouses or domestic partners are required to contribute the full cost of coverage and dependents are offered coverage under COBRA.

NOTE 11 POSTEMPLOYMENT BENEFITS *(continued)*

Funding Policy

The Commission has adopted a Retiree Medical Trust Funding Policy, effective September 17, 2008, whereby the Commission anticipates approving an annual contribution to the Trust in the amount of the Annual Required Contribution (ARC) as determined by the Commission's actuary during the approval of its annual operating budget.

Annual OPEB Cost and Net OPEB Asset

The following table summarizes the components of the Commission's annual OPEB cost, actual contributions, percentage of annual OPEB cost contributed, increase in the net OPEB asset and the net OPEB asset at the end of the fiscal year.

	Year ended May 31		
	2018	**2017**	**2016**
	(Dollar Amounts in Thousands)		
Normal cost	$ 11,026	$ 10,501	$ 10,975
Trust expense assumption	175	150	150
Amortization	(3,287)	(153)	(394)
Interest	470	623	637
Annual required contribution (ARC)	8,384	11,121	11,368
Interest on net OPEB asset	(7,965)	(7,405)	(6,820)
Adjustment to ARC	17,046	15,848	14,596
Annual OPEB cost	17,465	19,564	19,144
Employer contributions	28,171	28,176	28,143
Increase in net OPEB asset	10,706	8,612	8,999
Net OPEB asset - beginning of year	122,542	113,930	104,931
Net OPEB asset - end of year	$ 133,248	$ 122,542	$ 113,930
Percentage of annual OPEB cost contributed	161.3%	144.0%	147.0%

The ARC and its components (normal cost, trust expense assumption, Unfunded Actuarial Accrued Liability (UAAL) [or Funding Excess] amortization, and mid-year contribution interest) in the table presented above were obtained from the actuarial valuations, prepared by an independent actuary. The fiscal year 2018 ARC and Annual OPEB cost amounts were obtained from a January 1, 2017 interim valuation. The fiscal year 2017 ARC and Annual OPEB cost amounts were obtained from a January 1, 2016 full valuation. The fiscal year 2016 ARC and Annual OPEB cost amounts were obtained from a January 1, 2015 interim valuation.

NOTE 11 POSTEMPLOYMENT BENEFITS *(continued)*

Annual OPEB Cost and Net OPEB Asset *(continued)*

Retiree and spouse contribution rates at May 31, 2018 are as follows:

- Management and supervisory union employees and union employees who retired prior to July 1, 1998 and October 1, 1997, respectively – the retiree/spouse contributes the full cost of coverage less the Commission's monthly subsidy of $19.28 once the retiree turns 65.
- Union employees who retired on October 1, 1997 or later – the retiree/spouse contributes the full cost of coverage less the Commission's monthly subsidy of $73.50 when the retiree or spouse reach age 65.
- Management and supervisory union employees who retire on or after March 1, 2016, and Local 250 and 77 employees who retire after February 1, 2016, as well as Local 30 professionals who retire after January 1, 2014, must participate in a wellness program or contribute 5% of the premium if less than age 65.
- Surviving spouses and domestic partners are paying 100% of the premiums, except for surviving spouses of Management and supervisory union employees who retired after March 1, 2001.

Funding Status and Funding Progress

The funding status of the plan, by actuarial valuation date, was as follows:

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (Funding Excess)	Funded Ratio	Covered Payroll	Unfunded AAL (Funding Excess) as a Percentage of Covered Payroll
		(Dollar Amounts in Thousands)				
January 1, 2016	$ 331,568	$ 330,395	$ (1,173)	100.4%	$ 124,458	(0.9)%
January 1, 2014	271,265	283,133	11,868	95.8%	126,699	9.4%

The schedule of funding progress, presented as Required Supplementary Information (RSI) following the notes to the financial statements, presents multi-year trend information depicting the change in the actuarial value of Plan assets over time relative to the actuarial accrued liability for benefits.

NOTE 11 POSTEMPLOYMENT BENEFITS *(continued)*

Actuarial Methods and Assumptions

The valuation measurements in the charts presented previously are, in part, the result of estimates of the value of reported amounts and assumptions about the probability of events in the long term. Such actuarially determined estimates are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. Also, the valuation measurements are based, in part, on the types of benefits provided under the terms of the substantive plan at the time of the valuation and on the pattern of sharing of costs between the Commission and the Plan members through the respective valuation dates. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

A summary of the actuarial methods and assumptions used in the January 1, 2016 valuation is as follows:

Actuarial cost method	Projected-unit credit
Discount rate	6.5%
Rate of return on assets	6.5%
Inflation rate	2.5%
Amortization method	Level dollar
Amortization period:	
▪ UAAL as of March 1, 2012	10 years (closed)
▪ Subsequent changes	10 years (open)
Asset valuation method	Fair value
Benefit assumption – increases/decreases	No changes

NOTE 11 POSTEMPLOYMENT BENEFITS *(continued)*

Actuarial Methods and Assumptions *(continued)*

Health Cost Trend: The healthcare trend assumption is based on the Society of Actuaries-Getzen Model version 2014 utilizing the baseline assumptions included in the model, except real GDP of 1.8% and inflation of 2.5% for medical and prescription drug benefits. Further adjustments apply based on percentage of costs associated with administrative expenses, aging factors, potential excise taxes due to healthcare reform, and other healthcare reform provisions. The health cost trend assumption for medical and prescription benefits at sample years is as follows:

Valuation Year	Pre-65 Trend	Post-65 Trend
2016	6.2%	7.9%
2017	5.9%	6.6%
2018	5.2%	5.2%
2019	5.2%	5.2%
2020	5.2%	5.2%
2025	5.2%	5.2%
2030	5.6%	5.3%
2035	6.1%	5.3%
2040	5.7%	5.1%
2050	5.5%	5.0%
2060	5.4%	5.2%
2070	4.6%	4.9%

The health cost trend assumption for dental and vision benefits and premiums are assumed to be 4.0% per year.

Salary increases were not considered as OPEB benefits are not based upon pay.

NOTE 12 SELF-INSURANCE

The Commission is exposed to various risks of losses such as theft of, damage to, and destruction of assets, errors and omissions, torts, injuries to employees and natural disasters. The Commission has purchased commercial all risk property insurance and stop loss insurance for employee medical and prescription benefits coverage. The Commission remains self-insured for dental and vision benefits, torts and injuries to employees as well as medical and prescription benefits up to stop loss coverages. No settlements exceeded insurance coverage for each of the past three years.

NOTE 12 SELF-INSURANCE *(continued)*

The Commission recorded a liability of $39.5 million and $44.3 million for loss and loss adjustment expenses on claims relating to self-insurance that have been incurred but not reported as of May 31, 2018 and 2017, respectively. The self-insurance liabilities recorded as accounts payable and accrued liabilities are $4.3 million and $4.4 million for the fiscal years ended May 31, 2018 and 2017, respectively. The self-insurance liabilities recorded as other noncurrent liabilities are $35.2 million and $39.9 million for the fiscal years ended May 31, 2018 and 2017, respectively. This liability is based on GASB Statement No. 10, *Accounting and Financial Reporting for Risk Financing and Related Insurance Issues*, which requires that a liability for claims be recorded if information prior to the issuance of the financial statements indicates that it is probable that a liability has been incurred at the date of the financial statements and the amount of the loss can be reasonably estimated. The liability is calculated based on the Commission's past loss experience. The liability for vehicle and general tort was not discounted. The liability for workers' compensation was discounted using a rate of 2.50% for the fiscal years ended May 31, 2018 and 2017. The liability includes amounts for claims adjustment expense and is net of any salvage and subrogation. Salvage and subrogation were not material for the years ended May 31, 2018 and 2017. The Commission believes the liability established is reasonable and appropriate to provide for settlement of losses and related loss adjustment expenses.

Management believes that its reserve for claims incurred but not reported is determined in accordance with generally accepted actuarial principles and practices. However, estimating the ultimate liability is a complex and judgmental process inasmuch as the amounts are based on management's informed estimates and judgments using data currently available. As additional experience and data become available regarding claim payments and reporting patterns, legislative developments and economic conditions, the estimates are revised accordingly and the impact is reflected currently in the Commission's financial statements.

NOTE 12 SELF-INSURANCE *(continued)*

The following summaries provide aggregated information on self-insurance liabilities:

	June 1, 2017 Liability	Effects of Discount as of June 1, 2017	Incurred Claims Current Year	Incurred Claims Prior Years	Paid Claims Current Year	Paid Claims Prior Years	Effects of Discount as of May 31, 2018	May 31, 2018 Liability
Year ended May 31, 2018				*(In Thousands)*				
Workers' compensation	$ 9,690	$ 993	$ 1,768	$ 1,922	$ (729)	$ (3,082)	$ (1,098)	$ 9,464
Motor vehicle/general tort	34,564	-	81	(4,437)	(33)	(177)	-	29,998
	$ 44,254	$ 993	$ 1,849	$ (2,515)	$ (762)	$ (3,259)	$ (1,098)	$ 39,462

	June 1, 2016 Liability	Effects of Discount as of June 1, 2016	Incurred Claims Current Year	Incurred Claims Prior Years	Paid Claims Current Year	Paid Claims Prior Years	Effects of Discount as of May 31, 2017	May 31, 2017 Liability
Year ended May 31, 2017				*(In Thousands)*				
Workers' compensation	$ 10,705	$ 1,142	$ 868	$ 2,331	$ (311)	$ (4,052)	$ (993)	$ 9,690
Motor vehicle/general tort	29,435	-	48	5,581	(31)	(469)	-	34,564
	$ 40,140	$ 1,142	$ 916	$ 7,912	$ (342)	$ (4,521)	$ (993)	$ 44,254

The foregoing reflects an adjustment for a decrease of $2.5 million and an increase of $7.9 million for the fiscal years ended May 31, 2018 and 2017, respectively, in the provision for events of prior fiscal years (Incurred Claims – Prior Years) that resulted from a change in estimate as more information became available.

NOTE 13 COMPENSATED ABSENCES

Sick leave is earned at a rate of 3.08 hours every two weeks, or 10 days per year. Unused sick leave may be carried over from year to year, up to a maximum of 18 days. In November of each year, employees are reimbursed for all accumulated unused sick leave above the maximum. Sick leave payouts were $1.7 and $1.8 million in November 2017 and 2016, respectively.

Vacation leave is earned at varying rates, depending on years of service. Management and supervisory union employees earn between 4.62 and 8.93 hours every two weeks. Non-supervisory union employees earn between 3.08 and 8.93 hours every two weeks.

Upon termination of employment, all unused sick and vacation leave is paid to the employee. The compensated absences liabilities were $15.9 million for both of the fiscal years ended May 31, 2018 and 2017, respectively. The compensated absences liabilities recorded as accounts payable and accrued liabilities were $8.7 million for both of the fiscal years ended May 31, 2018 and 2017, respectively. The compensated absences liabilities recorded as other noncurrent liabilities were $7.2 million for both of the fiscal years ended May 31, 2018 and 2017, respectively.

NOTE 13 COMPENSATED ABSENCES *(continued)*

A summary of changes to compensated absences for the years ended May 31, 2018 and 2017 is as follows:

Fiscal Year Ended May 31	Beginning Balance	Additions	Reductions	Ending Balance	Due Within One Year
			(In Thousands)		
2018	$ 15,861	$ 12,340	$ 12,327	$ 15,874	$ 8,731
2017	15,970	12,256	12,365	15,861	8,723

NOTE 14 LETTERS OF CREDIT

The Commission has outstanding letters of credit with several banks as described below:

Pennsylvania insurance law requires a letter of credit, surety bond, or escrow from entities that self-insure their Workers' Compensation. As of May 31, 2018, the Commission has two (2) standby letters of credit to satisfy the PA Turnpike's collateral requirement under the expired Owner Controlled Insurance Program (OCIP) with Zurich American Insurance; there have been no draws against these letters of credit. The Letters of Credit are as follows:

- $159,000 letter of credit with PNC Bank, N.A. for beneficiary Zurich American Insurance for the Uniontown to Brownsville Phase I OCIP.

- $470,000 letter of credit with Wells Fargo Bank, N.A. for beneficiary Zurich American Insurance for the Uniontown to Brownsville Phase II OCIP.

In May 2017, in lieu of a letter of credit, the Commission placed $2.0 million into an escrow account with Wells Fargo (naming Liberty Mutual as beneficiary) for the new OCIP on the U.S. 22 to I-79 portion of the Southern Beltway currently under construction.

NOTE 15 SUBSEQUENT EVENTS

On June 5, 2018, the Commission issued $231,385,000 2018 Series A Oil Franchise Tax Senior Revenue Bonds and $210,480,000 2018 Series B Oil Franchise Tax Subordinate Revenue Bonds. The 2018 Series A Oil Franchise Tax Senior Revenue Bonds were issued to finance the costs of various capital expenditures for the Turnpike System as set forth in the Commission's current or any prior Independently Funded Capital Plan, including but not limited to, the funding of capital expenditures related to the Southern Beltway or the Mon-Fayette Expressway (2018 Construction Project) and for paying the costs of issuing the 2018 Series A Oil Franchise Tax Senior Revenue Bonds. The 2018 Series B Oil Franchise Tax Subordinate Revenue Bonds were issued to provide funds to finance the costs of the 2018 Construction Project, funding necessary reserves or similar funds to the extent required for such financing and for paying the costs of issuing the 2018 Series B Oil Franchise Tax Subordinate Revenue Bonds.

On June 28, 2018, the Commission issued $182,455,000 2018 Series A-1 Variable Rate Senior Revenue Bonds and $307,935,000 2018 Series A-2 Senior Revenue Bonds. The 2018 Series A-1 Variable Rate Senior Revenue Bonds were issued to finance the current refunding of the Commission's outstanding 2013 Series A Variable Rate Senior Revenue Bonds maturing December 1, 2018, the current refunding of the Commission's 2014 Series B-1 Variable Rate Senior Revenue Bonds maturing December 1, 2018, the current refunding of all of the Commission's outstanding 2016 Series A-2 Variable Rate Senior Revenue Bonds maturing December 1, 2018 and for the costs of issuing the 2018 Series A-1 Variable Rate Senior Revenue Bonds. The 2018 Series A-2 Senior Revenue Bonds were issued for financing various capital expenditures set forth in the Commission's current or any prior Ten-Year Capital Plan, to deposit to the Debt Service Reserve Fund and capitalized interest on the 2018 Series A-2 Senior Revenue Bonds and the costs of issuing the 2018 Series A-2 Senior Revenue Bonds.

On July 19, 2018, the Commission executed the First Amendment to Continuing Covenant Agreement and Supplemental Trust Indenture No. 3 relating to modifications of the 2005 Series B, C and D Registration Fee Revenue Refunding Bonds. These amendments extended the bonds to July 19, 2023 and modified other various terms of the agreement.

NOTE 15 SUBSEQUENT EVENTS *(continued)*

On July 31, 2018, the Commission executed Amendment No. 2 to the Lease and Funding Agreement with PennDOT. The Amendment allowed for (i) the due date for the July 2018 payment to be extended to the last business day of October 2018 or other such later date, no later than June 30, 2019 as may be agreed to by the Commission and PennDOT and (ii) the due date for any subsequent payment in the fiscal year ending June 30, 2019 may be extended to any later date, no later than June 30, 2019 as may be agreed to by the Commission and PennDOT. In addition, the Amendment replaced the reference therein to “bondholder, debt holders, or creditors having such status as of the Effective Date” with “current bondholders, debt holders or creditors”. Other various terms of the agreement were modified as well.

On August 21, 2018, the Commission authorized the issuance of the Pennsylvania Turnpike Commission’s variable and/or fixed rate Turnpike Revenue Refunding Bonds in an aggregate principal amount not to exceed $250,000,000 (based on par amount). Based on current market conditions, a public offering of the bonds is more advantageous to the Commission. The amendment specifically authorizes certain documents and actions related to a public sale of the bonds.

On August 21, 2018, the Commission authorized the approval of the issuance of the Pennsylvania Turnpike Commission’s variable and/or fixed rate Turnpike Revenue Refunding Bonds in an aggregate principal amount not to exceed $300,000,000 (based on par amount) in one or more series or sub-series, taxable or tax-exempt, for the purpose of financing the refunding of all or a portion of certain outstanding Turnpike Revenue Bonds, including the funding of necessary reserves.

On August 21, 2018, the Commission authorized certain amendments to and terminations of the Commission’s 2009 interest rate swap with Goldman Sachs and the 2010 interest rate swap with Deutsche Bank and authorized certain offsetting swap agreements.

On August 21, 2018, the Commission authorized an amendment to the 2016 EB-5 Loan Agreement between the Commission and Delaware Valley Regional Center (DVRC) to include, but not limited to, modification of the amount of the various trances to be an amount mutually agreed to by the parties and other terms and conditions as may be recommended by counsel.

[THIS PAGE INTENTIONALLY LEFT BLANK]

REQUIRED SUPPLEMENTARY INFORMATION

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Schedule of Commission's Proportionate Share of the Net Pension Liability –
Pennsylvania State Employees' Retirement System

Last 10 Fiscal Years*
(Dollar Amounts in Thousands)

	2018	2017	2016	2015
Commission's proportion of the net pension liability	1.90329134%	1.96867410%	1.90799267%	1.99409814%
Commission's proportionate share of the net pension liability	$ 329,112	$ 379,173	$ 346,946	$ 296,271
Commission's covered payroll	120,641	123,365	121,085	121,579
Commission's proportionate share of the net pension liability as a percentage of its covered payroll	272.80%	307.36%	286.53%	243.69%
Plan fiduciary net position as a percentage of the total pension liability	63.0%	57.8%	58.9%	64.8%

* The amounts presented for each fiscal year were determined as of the measurement date (12/31) that occurred within the Commission's fiscal year. The Commission adopted GASB 68 on a prospective basis in fiscal year 2015; therefore, only the available years are presented in the above schedule.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Schedule of Commission's Contributions –
Pennsylvania State Employees' Retirement System

Last 10 Fiscal Years*
(Dollar Amounts in Thousands)

	2018	2017	2016	2015
Contractually required contribution	$ 38,073	$ 33,303	$ 27,864	$ 22,588
Contributions in relation to the contractually required contribution	(38,073)	(33,303)	(27,864)	(22,588)
Contribution deficiency (excess)	$ -	$ -	$ -	$ -
Commission's covered payroll	$ 122,654	$ 121,778	$ 121,060	$ 121,009
Contributions as a percentage of covered payroll	31.04%	27.35%	23.02%	18.67%

* The Commission adopted GASB 68 on a prospective basis in fiscal year 2015; therefore, only the available years are presented in the above schedule.

Schedule of Funding Progress – Postemployment Healthcare Benefits
(In Thousands)

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (Funding Excess)	Funded Ratio	Covered Payroll	Unfunded AAL (Funding Excess) as a Percentage of Covered Payroll
January 1, 2016	$ 331,568	$ 330,395	$ (1,173)	100.4%	$ 124,458	(0.9)%
January 1, 2014	271,265	283,133	11,868	95.8%	126,699	9.4%
March 1, 2012	152,341	250,750	98,409	60.8%	124,241	79.2%

The following is a listing of changes in assumptions used in the January 1, 2016 valuation compared with previous valuations. See Note 11 for additional information.

- The eligibility conditions for Local 250 and 77 union employees hired on or after February 1, 2016 and management and supervisory union employees hired on or after March 1, 2016 was modified to the earlier of completion of 30 years of Credited Service or the later of attainment of age 60 and completion of 25 years of Credited Service. The last 10 years of Credited Service must be with the Commission.

- Local 30 Professionals who retire on or after January 1, 2014 and all other union, management and supervisory union employees who retire on or after February 1, 2016, must participate in the wellness program if less than age 65, including spouses under age 65 and other dependents age 19 to 26 or contribute 5% of the monthly premium based on the selected coverage level.

- Per capita claims costs were updated based on recent experience of Commission retirees and the healthcare trend rate was updated to use the Society of Actuaries-Getzen Model version 2014.

- The discount rate was reduced from 7% to 6.5% per annum.

Following is a listing of changes in assumptions used in the January 1, 2014 valuation compared with previous valuations.

- Per capita claims costs were updated based on recent experience of Commission retirees and the healthcare trend was updated.

- Assumed health plan elections for members attaining age 65 were modified from 2/3rd electing Signature 65 and 1/3rd electing Freedom Blue (without Rx) to 60% electing Signature 65 and 40% electing Freedom Blue (without Rx).

- The assumed percentage of eligible female members covering a spouse decreased from 50% to 40%.

OTHER SUPPLEMENTARY INFORMATION

For accounting purposes, the Commission maintains its records in three sections: Mainline, Oil Franchise, and Motor License. These sections are based on the types of revenues and the associated bond issues.

The Mainline section consists of income and expenses directly associated with the operations of the Turnpike System. In addition, all bonds pledged against this revenue source are included in this section.

The Oil Company Franchise section consists of revenues received from the Commission's allocation of the Commonwealth's Oil Company Franchise Tax. This revenue is pledged against the Oil Company Franchise Tax Debt as listed in Note 7.

The Motor License section consists of an annual income of $28.0 million, which has been provided to the Commission pursuant to Section 20 of Act 3 of the Commonwealth of Pennsylvania. This income is pledged against the Motor License Registration Fee Debt as listed in Note 7.

Schedule of Net Position

	May 31, 2018			
	Mainline	Oil Franchise	Motor License	Total
		(In Thousands)		
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES				
Current assets:				
Cash and cash equivalents	$ 211,437	$ -	$ -	$ 211,437
Short-term investments	91,361	-	-	91,361
Accounts receivable	68,246	-	-	68,246
Accrued interest receivable	1,331	-	-	1,331
Inventories	17,396	-	-	17,396
Restricted current assets				
Cash and cash equivalents	765,865	112,074	26,631	904,570
Short-term investments	153,104	24,798	10,241	188,143
Accounts receivable	6,418	10,798	-	17,216
Accrued interest receivable	2,299	739	136	3,174
Total current assets	1,317,457	148,409	37,008	1,502,874
Noncurrent assets				
Long-term investments				
Long-term investments unrestricted	221,063	-	-	221,063
Long-term investments restricted	371,449	92,329	23,463	487,241
Total long-term investments	592,512	92,329	23,463	708,304
Capital assets not being depreciated				
Land and intangibles	380,837	-	-	380,837
Assets under construction	1,517,692	-	-	1,517,692
Capital assets being depreciated				
Buildings	980,744	-	-	980,744
Improvements other than buildings	124,960	-	-	124,960
Equipment	621,430	-	-	621,430
Infrastructure	8,809,493	-	-	8,809,493
Total capital assets before accumulated depreciation	12,435,156	-	-	12,435,156
Less: Accumulated depreciation	6,418,160	-	-	6,418,160
Total capital assets after accumulated depreciation	6,016,996	-	-	6,016,996
Other assets				
Prepaid bond insurance costs	3,386	29	1,406	4,821
OPEB asset	133,248	-	-	133,248
Other assets	30,198	-	-	30,198
Total other assets	166,832	29	1,406	168,267
Total noncurrent assets	6,776,340	92,358	24,869	6,893,567
Total assets	8,093,797	240,767	61,877	8,396,441
Deferred outflows of resources from hedging derivates	19,871	-	51,132	71,003
Deferred outflows of resources from refunding bonds	384,853	12,558	18,362	415,773
Deferred outflows of resources from pensions	46,702	-	-	46,702
Total deferred outflows of resources	451,426	12,558	69,494	533,478
Total assets and deferred outflows of resources	$ 8,545,223	$ 253,325	$ 131,371	$ 8,929,919

	May 31, 2018			
	Mainline	**Oil Franchise**	**Motor License**	**Total**
	(In Thousands)			
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES				
Current liabilities				
Accounts payable and accrued liabilities	$ 460,136	$ 27,364	$ 3,614	$ 491,114
Current portion of debt	329,245	18,170	8,615	356,030
Unearned income	74,292	335	-	74,627
Total current liabilities	863,673	45,869	12,229	921,771
Noncurrent liabilities				
Debt, less current portion, net of unamortized premium	11,880,845	680,836	394,560	12,956,241
Net pension liability	329,112	-	-	329,112
Other noncurrent liabilities	139,451	-	58,176	197,627
Total noncurrent liabilities	12,349,408	680,836	452,736	13,482,980
Total liabilities	13,213,081	726,705	464,965	14,404,751
Deferred inflows of resources from hedging derivatives	4,573	-	-	4,573
Deferred inflows of resources from service concession arrangements	121,674	-	-	121,674
Deferred inflows of resources from refunding bonds	156	2,740	-	2,896
Deferred inflows of resources from pensions	34,787	-	-	34,787
Total deferred inflows of resources	161,190	2,740	-	163,930
Total liabilities and deferred inflows of resources	13,374,271	729,445	464,965	14,568,681
NET POSITION				
Net investment in capital assets	829,246	(688,907)	(390,451)	(250,112)
Restricted for construction purposes	-	203,667	56,857	260,524
Restricted for debt service	34,834	9,120	-	43,954
Unrestricted	(5,693,128)	-	-	(5,693,128)
Total net position	$ (4,829,048)	$ (476,120)	$ (333,594)	$ (5,638,762)

Schedule of Revenues, Expenses, and Changes in Net Position

	May 31, 2018			
	Mainline	**Oil Franchise**	**Motor License**	**Total**
	(In Thousands)			
Operating revenues				
Net fares	$ 1,196,606	$ -	$ -	$ 1,196,606
Other	4,668	-	-	4,668
Total operating revenues	1,201,274	-	-	1,201,274
Operating expenses				
Cost of services	492,184	2,558	-	494,742
Depreciation	379,401	-	-	379,401
Total operating expenses	871,585	2,558	-	874,143
Operating income (loss)	329,689	(2,558)	-	327,131
Nonoperating revenues (expenses)				
Investment earnings	18,431	375	3	18,809
Other nonoperating revenues	17,735	4,568	-	22,303
Act 44 and Act 89 payments to PennDOT	(450,000)	-	-	(450,000)
Capital assets transferred to PennDOT	-	-	-	-
Interest and bond expense	(519,539)	(27,989)	(18,609)	(566,137)
Nonoperating expenses, net	(933,373)	(23,046)	(18,606)	(975,025)
Loss before capital contributions	(603,684)	(25,604)	(18,606)	(647,894)
Capital contributions	37,842	141,962	28,000	207,804
(Decrease) increase in net position	(565,842)	116,358	9,394	(440,090)
Net position at beginning of year	(4,433,858)	(423,345)	(341,469)	(5,198,672)
Intersection transfers	170,652	(169,133)	(1,519)	-
Net position at end of year	$ (4,829,048)	$ (476,120)	$ (333,594)	$ (5,638,762)

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Section Information *(continued)*
Schedule of Cash Flows

	May 31, 2018			
	Mainline	Oil Franchise	Motor License	Total
	(In Thousands)			
CASH FLOWS FROM OPERATING ACTIVITIES				
Cash received from customer tolls and deposits	$ 1,189,955	$ -	$ -	$ 1,189,955
Cash payments for goods and services	(320,258)	(908)	-	(321,166)
Cash payments to employees	(180,667)	(1,635)	-	(182,302)
Cash received from other operating activities	12,846	-	-	12,846
Net cash provided by (used in) operating activities	701,876	(2,543)	-	699,333
CASH FLOWS FROM INVESTING ACTIVITIES				
Proceeds from sales and maturities of investments	3,669,859	510,384	77,936	4,258,179
Interest received on investments	16,285	4,846	849	21,980
Purchases of investments	(3,545,475)	(417,993)	(67,101)	(4,030,569)
Net cash provided by investing activities	140,669	97,237	11,684	249,590
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES				
Capital grants received from other governments	31,273	-	-	31,273
Proceeds from Motor License Registration fees	-	-	28,000	28,000
Proceeds from Oil Company Franchise Tax	-	142,794	-	142,794
Construction and acquisition of capital assets	(462,173)	(166,571)	-	(628,744)
Proceeds from sale of capital assets	1,449	-	-	1,449
Payments for bond and swap expenses	(3,009)	(40)	-	(3,049)
Payments for debt refundings	(407,296)	-	-	(407,296)
Payments for debt maturities	(168,740)	(17,445)	(8,185)	(194,370)
Interest paid on debt	(227,976)	(33,179)	(20,268)	(281,423)
Interest subsidy from Build America Bonds	16,341	4,568	-	20,909
Proceeds from debt issuances	880,543	-	-	880,543
Net cash used in capital and related financing activities	(339,588)	(69,873)	(453)	(409,914)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES				
Cash payments to PennDOT	(450,000)	-	-	(450,000)
Payments for bond and swap expenses	(8,207)	-	-	(8,207)
Payments for debt refundings	(1,283,282)	-	-	(1,283,282)
Payments for debt maturities	(57,005)	-	-	(57,005)
Interest paid on debt	(237,750)	-	-	(237,750)
Proceeds from debt issuances	1,695,452	-	-	1,695,452
Net cash used in noncapital financing activities	(340,792)	-	-	(340,792)
Increase in cash and cash equivalents	162,165	24,821	11,231	198,217
Cash and cash equivalents at beginning of year	815,137	87,253	15,400	917,790
Cash and cash equivalents at end of year	$ 977,302	$ 112,074	$ 26,631	$ 1,116,007

	May 31, 2018			
	Mainline	**Oil Franchise**	**Motor License**	**Total**
		(In Thousands)		
Reconciliation of operating income (loss) to net cash provided by (used in) operating activities				
Operating income (loss)	$ 329,689	$ (2,558)	$ -	$ 327,131
Adjustments to reconcile operating income (loss) to net cash provided by (used in) operating activities				
Depreciation	379,401	-	-	379,401
Change in operating assets and liabilities				
Accounts receivable	677	-	-	677
Inventories	1,577	-	-	1,577
Other assets	(10,724)	-	-	(10,724)
Deferred outflows of resources from pensions	37,657	-	-	37,657
Accounts payable and accrued liabilities	1,939	15	-	1,954
Net pension liability	(50,061)	-	-	(50,061)
Other noncurrent liabilities	(4,777)	-	-	(4,777)
Deferred inflows of resources from pensions	16,498	-	-	16,498
Net cash provided by (used in) operating activities	$ 701,876	$ (2,543)	$ -	$ 699,333
Reconciliation of cash and cash equivalents to the statements of net position				
Cash and cash equivalents	$ 211,437	$ -	$ -	$ 211,437
Restricted cash and cash equivalents	765,865	112,074	26,631	904,570
Total cash and cash equivalents	$ 977,302	$ 112,074	$ 26,631	$ 1,116,007

Noncash Investing, Capital and Related Financing and Noncapital Financing Activities

The Commission recorded a net increase of $6.8 million in the fair value of its investments not reported as cash equivalents for the year ended May 31, 2018. Increases by section were: Mainline, $2.1 million; Oil Franchise, $4.0 million and Motor License $0.7 million.

The Commission recorded $44.6 million for the amortization of bond premium for the year ended May 31, 2018. Amortization by section was: Mainline, $38.9 million; Oil Franchise, $5.0 million and Motor License, $0.7 million.

As indicated in Note 7 (Debt), the Commission refunded various Mainline bonds in fiscal year 2018. The fiscal year 2018 Mainline refundings resulted in a $32.8 million reclassification from bond premiums (discounts) to deferred outflows of resources from refunding bonds and a $6.2 million reclassification from bond premiums (discounts) to deferred inflows of resources from refundings. Additionally, the Commission recorded $33.5 million for the amortization of deferred outflows/inflows of resources from refunding bonds for the year ended May 31, 2018. Amortization by section was: Mainline, $32.2 million; Oil Franchise, $0.5 million and Motor License, $0.8 million.

The Commission recorded $0.5 million for the amortization of prepaid bond insurance costs for the year ended May 31, 2018. Amortization by section was: Mainline, $0.4 million and Motor License, $0.1 million.

Noncash Investing, Capital and Related Financing and Noncapital Financing Activities *(continued)*

The Commission recorded an interest expense reduction of $3.0 million in the Mainline section and $0.2 million in the Motor License section for the year ended May 31, 2018 related to GASB 53 entries.

The Commission recognized total capital contributions of $207.8 million for fiscal year ended May 31, 2018. Cash received of $202.1 million for fiscal year ended May 31, 2018 is reported in the capital and related financing activities of this schedule. The $5.7 million difference between capital contributions and cash received is the result of a $0.3 million net increase (Mainline section $1.1 million increase; Oil Franchise section $0.8 million decrease) in receivables related to these capital contributions and a $5.4 million Mainline noncash capital contribution related to capital assets provided by service plaza operators. The Commission entered into agreements with a food and fuel provider to totally reconstruct the service plazas; the service plaza operators provide the capital for the reconstruction in exchange for lower rental rates. See Note 2 for further discussion on capital contributions and Note 6 for further discussion on the service plazas.

The Commission records intersection activity related to revenue, expense, asset and liability transfers between its sections. Some of the intersection entries are related to cash transfers; others are noncash transfers as required. Net intersection transfers for the year ended May 31, 2018 were: to Mainline, $170.6 million; from Oil Franchise, $169.1 million; and from Motor License, $1.5 million.

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Section Information *(continued)*
Schedule of Net Position

	May 31, 2017			
	Mainline	Oil Franchise	Motor License	Total
		(In Thousands)		
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES				
Current assets				
Cash and cash equivalents	$ 215,949	$ -	$ -	$ 215,949
Short-term investments	67,764	-	-	67,764
Accounts receivable	69,181	-	-	69,181
Accrued interest receivable	1,268	-	-	1,268
Inventories	18,973	-	-	18,973
Restricted current assets				
Cash and cash equivalents	599,188	87,253	15,400	701,841
Short-term investments	260,856	40,567	1,998	303,421
Accounts receivable	5,057	11,629	-	16,686
Accrued interest receivable	2,329	1,001	183	3,513
Total current assets	1,240,565	140,450	17,581	1,398,596
Noncurrent assets				
Long-term investments				
Long-term investments unrestricted	278,202	-	-	278,202
Long-term investments restricted	348,086	173,988	43,340	565,414
Total long-term investments	626,288	173,988	43,340	843,616
Capital assets not being depreciated				
Land and intangibles	359,210	-	-	359,210
Assets under construction	1,356,951	-	-	1,356,951
Capital assets being depreciated				
Buildings	978,186	-	-	978,186
Improvements other than buildings	121,137	-	-	121,137
Equipment	638,300	-	-	638,300
Infrastructure	8,380,745	-	-	8,380,745
Total capital assets before accumulated depreciation	11,834,529	-	-	11,834,529
Less: Accumulated depreciation	6,105,647	-	-	6,105,647
Total capital assets after accumulated depreciation	5,728,882	-	-	5,728,882
Other assets				
Prepaid bond insurance costs	3,877	34	1,466	5,377
OPEB asset	122,542	-	-	122,542
Other assets	31,747	-	-	31,747
Total other assets	158,166	34	1,466	159,666
Total noncurrent assets	6,513,336	174,022	44,806	6,732,164
Total assets	7,753,901	314,472	62,387	8,130,760
Deferred outflows of resources from hedging derivates	44,921	-	61,904	106,825
Deferred outflows of resources from refunding bonds	310,684	13,481	19,155	343,320
Deferred outflows of resources from pensions	84,359	-	-	84,359
Total deferred outflows of resources	439,964	13,481	81,059	534,504
Total assets and deferred outflows of resources	$ 8,193,865	$ 327,953	$ 143,446	$ 8,665,264

	May 31, 2017			
	Mainline	Oil Franchise	Motor License	Total
		(In Thousands)		
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES				
Current liabilities				
Accounts payable and accrued liabilities	$ 418,830	$ 26,779	$ 3,692	$ 449,301
Current portion of debt	365,745	17,445	8,185	391,375
Unearned income	71,942	732	-	72,674
Total current liabilities	856,517	44,956	11,877	913,350
Noncurrent liabilities				
Debt, less current portion, net of unamortized premium	11,070,932	702,800	403,895	12,177,627
Net pension liability	379,173	-	-	379,173
Other noncurrent liabilities	177,418	335	69,143	246,896
Total noncurrent liabilities	11,627,523	703,135	473,038	12,803,696
Total liabilities	12,484,040	748,091	484,915	13,717,046
Deferred inflows of resources from hedging derivatives	2,700	-	-	2,700
Deferred inflows of resources from service concession arrangements	122,694	-	-	122,694
Deferred inflows of resources from refunding bonds	-	3,207	-	3,207
Deferred inflows of resources from pensions	18,289	-	-	18,289
Total deferred inflows of resources	143,683	3,207	-	146,890
Total liabilities and deferred inflows of resources	12,627,723	751,298	484,915	13,863,936
NET POSITION				
Net investment in capital assets	849,221	(708,561)	(398,698)	(258,038)
Restricted for construction purposes	-	272,819	57,229	330,048
Restricted for debt service	32,330	12,397	-	44,727
Unrestricted	(5,315,409)	-	-	(5,315,409)
Total net position	$ (4,433,858)	$ (423,345)	$ (341,469)	$ (5,198,672)

Schedule of Revenues, Expenses, and Changes in Net Position

	May 31, 2017			
	Mainline	Oil Franchise	Motor License	Total
		(In Thousands)		
Operating revenues				
Net fares	$ 1,111,061	$ -	$ -	$ 1,111,061
Other	23,335	-	-	23,335
Total operating revenues	1,134,396	-	-	1,134,396
Operating expenses				
Cost of services	514,310	2,793	-	517,103
Depreciation	354,343	-	-	354,343
Total operating expenses	868,653	2,793	-	871,446
Operating income (loss)	265,743	(2,793)	-	262,950
Nonoperating revenues (expenses)				
Investment earnings (loss)	13,971	(313)	567	14,225
Other nonoperating revenues	16,978	4,554	-	21,532
Act 44 and Act 89 payments to PennDOT	(450,000)	-	-	(450,000)
Capital assets transferred to PennDOT	(54,724)	-	-	(54,724)
Interest and bond expense	(524,730)	(17,732)	(18,198)	(560,660)
Nonoperating expenses, net	(998,505)	(13,491)	(17,631)	(1,029,627)
Loss before capital contributions	(732,762)	(16,284)	(17,631)	(766,677)
Capital contributions	62,967	123,697	28,000	214,664
(Decrease) increase in net position	(669,795)	107,413	10,369	(552,013)
Net position at beginning of year	(3,868,714)	(427,785)	(350,160)	(4,646,659)
Intersection transfers	104,651	(102,973)	(1,678)	-
Net position at end of year	$ (4,433,858)	$ (423,345)	$ (341,469)	$ (5,198,672)

PENNSYLVANIA TURNPIKE COMMISSION
A Component Unit of the Commonwealth of Pennsylvania
Section Information *(continued)*
Schedule of Cash Flows

	May 31, 2017			
	Mainline	Oil Franchise	Motor License	Total
	(In Thousands)			
CASH FLOWS FROM OPERATING ACTIVITIES				
Cash received from customer tolls and deposits	$ 1,117,714	$ -	$ -	$ 1,117,714
Cash payments for goods and services	(327,191)	(1,331)	-	(328,522)
Cash payments to employees	(156,679)	(1,455)	-	(158,134)
Cash received from other operating activities	8,926	-	-	8,926
Net cash provided by (used in) operating activities	642,770	(2,786)	-	639,984
CASH FLOWS FROM INVESTING ACTIVITIES				
Proceeds from sales and maturities of investments	4,585,619	218,855	36,593	4,841,067
Interest received on investments	17,425	4,320	510	22,255
Purchases of investments	(4,661,446)	(209,521)	(39,924)	(4,910,891)
Net cash (used in) provided by investing activities	(58,402)	13,654	(2,821)	(47,569)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES				
Capital grants received from other governments	55,265	-	-	55,265
Proceeds from Motor License Registration fees	-	-	28,000	28,000
Proceeds from Oil Company Franchise Tax	-	120,754	-	120,754
Construction and acquisition of capital assets	(522,966)	(76,117)	-	(599,083)
Proceeds from sale of capital assets	993	-	-	993
Payments for bond and swap expenses	(2,690)	(1,643)	(4)	(4,337)
Payments for debt refundings	(140,060)	(385,359)	-	(525,419)
Payments for debt maturities	(41,540)	(18,885)	(7,775)	(68,200)
Interest paid on debt	(213,989)	(36,000)	(20,081)	(270,070)
Interest subsidy from Build America Bonds	16,289	4,554	-	20,843
Proceeds from debt issuances	670,726	384,992	-	1,055,718
Net cash (used in) provided by capital and related financing activities	(177,972)	(7,704)	140	(185,536)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES				
Cash payments to PennDOT	(450,000)	-	-	(450,000)
Payments for bond and swap expenses	(8,128)	-	-	(8,128)
Payments for debt refundings	(1,549,690)	-	-	(1,549,690)
Payments for debt maturities	(54,430)	-	-	(54,430)
Interest paid on debt	(224,231)	-	-	(224,231)
Proceeds from debt issuances	1,823,095	-	-	1,823,095
Net cash used in noncapital financing activities	(463,384)	-	-	(463,384)
(Decrease) increase in cash and cash equivalents	(56,988)	3,164	(2,681)	(56,505)
Cash and cash equivalents at beginning of year	872,125	84,089	18,081	974,295
Cash and cash equivalents at end of year	$ 815,137	$ 87,253	$ 15,400	$ 917,790

	May 31, 2017			
	Mainline	Oil Franchise	Motor License	Total
	(In Thousands)			
Reconciliation of operating income (loss) to net cash provided by (used in) operating activities				
Operating income (loss)	$ 265,743	$ (2,793)	$ -	$ 262,950
Adjustments to reconcile operating income (loss) to net cash provided by (used in) operating activities				
Depreciation	354,343	-	-	354,343
Change in operating assets and liabilities				
Accounts receivable	(11,924)	-	-	(11,924)
Inventories	1,520	-	-	1,520
Other assets	(8,606)	-	-	(8,606)
Deferred outflows of resources from pensions	(18,078)	-	-	(18,078)
Accounts payable and accrued liabilities	17,035	7	-	17,042
Net pension liability	32,227	-	-	32,227
Other noncurrent liabilities	4,414	-	-	4,414
Deferred inflows of resources from pensions	6,096	-	-	6,096
Net cash provided by (used in) operating activities	$ 642,770	$ (2,786)	$ -	$ 639,984
Reconciliation of cash and cash equivalents to the statements of net position				
Cash and cash equivalents	$ 215,949	$ -	$ -	$ 215,949
Restricted cash and cash equivalents	599,188	87,253	15,400	701,841
Total cash and cash equivalents	$ 815,137	$ 87,253	$ 15,400	$ 917,790

Noncash Investing, Capital and Related Financing and Noncapital Financing Activities

The Commission recorded a net increase of $9.5 million in the fair value of its investments not reported as cash equivalents for the year ended May 31, 2017. Increases by section were: Mainline, $3.9 million; and Oil Franchise, $5.6 million.

The Commission recorded $34.8 million for the amortization of bond premium for the year ended May 31, 2017. Amortization by section was: Mainline, $29.8 million; Oil Franchise, $4.3 million and Motor License, $0.7 million.

As indicated in Note 7 (Debt), the Commission refunded various bonds in fiscal year 2017. The fiscal year 2017 refundings resulted in an $8.1 million reclassification (Mainline, $2.2 million; and Oil Franchise, $5.9 million) from bond premiums (discounts) to deferred outflows of resources from refunding bonds and a $3.1 million reclassification from bond premiums (discounts) to deferred inflows of resources from Oil Franchise refundings. Additionally, the Commission recorded $36.4 million for the amortization of deferred outflows/inflows of resources from refunding bonds for the year ended May 31, 2017. Amortization by section was: Mainline, $35.0 million; Oil Franchise, $0.6 million and Motor License, $0.8 million.

The Commission recorded $4.6 million for the amortization of prepaid bond insurance costs for the year ended May 31, 2017. Amortization by section was: Mainline, $3.3 million; Oil Franchise, $1.2 million and Motor License, $0.1 million.

Noncash Investing, Capital and Related Financing and Noncapital Financing Activities *(continued)*

The Commission recorded an interest expense reduction of $2.9 million in the Mainline section and $0.2 million in the Motor License section for the year ended May 31, 2017 related to GASB 53 entries.

The Commission recognized total capital contributions of $214.7 million for fiscal year ended May 31, 2017. Cash received of $204.0 million for fiscal year ended May 31, 2017 is reported in the Capital and related financing activities of this schedule. The $10.7 million difference between capital contributions and cash received is the result of a $5.5 million (Mainline section $2.5 million; Oil Franchise section $3.0 million) increase in receivables related to these capital contributions and a $5.2 million Mainline noncash capital contribution related to capital assets provided by service plaza operators. The Commission entered into agreements with a food and fuel provider to totally reconstruct the service plazas; the service plaza operators provide the capital for the reconstruction in exchange for lower rental rates. See Note 2 for further discussion on capital contributions and Note 6 for further discussion on the service plazas.

The Commission and PennDOT entered into an agreement regarding ownership of overhead bridges that carry state roads. Per the agreement, once the Commission replaces these overhead bridges, and after final inspections and supplemental agreements are signed by both parties, ownership and maintenance responsibilities of the bridges are transferred from the Commission to PennDOT. The Commission transferred assets with a net book value of $54.7 million from its Mainline section to PennDOT during the fiscal year ended May 31, 2017.

The Commission records intersection activity related to revenue, expense, asset and liability transfers between its sections. Some of the intersection entries are related to cash transfers; others are noncash transfers as required. Net intersection transfers for the year ended May 31, 2017 were: to Mainline, $104.7 million; from Oil Franchise, $103.0 million; and from Motor License, $1.7 million.

Schedules of Cost of Services Detail

The following tables provide additional detail for the costs of services reported in the statements of revenues, expenses, and changes in net position.

Fiscal Year Ended May 31, 2018

	Mainline Operating	Mainline Capital	Total Mainline	Oil Franchise	Motor License	Total
General and administrative	$ 42,548	$ 89,897	$ 132,445	$ 1,454	$ -	$ 133,899
Traffic engineering and operations	3,244	2,083	5,327	-	-	5,327
Service centers	35,556	-	35,556	-	-	35,556
Employee benefits	98,515	12,483	110,998	1,104	-	112,102
Toll collection	59,669	1,149	60,818	-	-	60,818
Maintenance	73,429	1,462	74,891	-	-	74,891
Facilities and energy mgmt. operations	12,080	11,262	23,342	-	-	23,342
Turnpike patrol	48,807	-	48,807	-	-	48,807
Total cost of services	$ 373,848	$ 118,336	$ 492,184	$ 2,558	$ -	$ 494,742

Fiscal Year Ended May 31, 2017

	Mainline Operating	Mainline Capital	Total Mainline	Oil Franchise	Motor License	Total
General and administrative	$ 47,861	$ 100,813	$ 148,674	$ 1,827	$ -	$ 150,501
Traffic engineering and operations	3,813	1,743	5,556	-	-	5,556
Service centers	32,304	-	32,304	-	-	32,304
Employee benefits	113,986	11,569	125,555	966	-	126,521
Toll collection	60,112	1,665	61,777	-	-	61,777
Maintenance	66,191	2,219	68,410	-	-	68,410
Facilities and energy mgmt. operations	11,266	13,545	24,811	-	-	24,811
Turnpike patrol	47,223	-	47,223	-	-	47,223
Total cost of services	$ 382,756	$ 131,554	$ 514,310	$ 2,793	$ -	$ 517,103

APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE SUBORDINATE INDENTURE

[THIS PAGE INTENTIONALLY LEFT BLANK]

APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF AND DEFINED TERMS IN THE SUBORDINATE INDENTURE

The following sets forth the definitions derived from the Subordinate Indenture and the Supplemental Subordinate Indenture No. 30 concerning the 2019A Subordinate Bonds and the operation of the Subordinate Indenture and the Supplemental Subordinate Indenture No. 30. This summary of such terms does not purport to be complete or definitive and is subject to all of the terms and provisions of the Subordinate Indenture and the Supplemental Subordinate Indenture No. 30, copies of which will be available at the corporate trust office of Wells Fargo Bank, N.A., as trustee.

DEFINITIONS OF CERTAIN TERMS

In addition to words and terms elsewhere defined in this Official Statement, the following words and terms used in this Official Statement and this Appendix C and the Subordinate Indenture and Supplemental Subordinate Indenture No. 30 shall have the following meanings unless the context clearly indicates otherwise:

"Additional Subordinate Indenture Bonds" means Subordinate Indenture Bonds of any Series, other than the Original Subordinate Indenture Bonds, authorized to be issued under the Subordinate Indenture.

"Administrative Expenses" means costs and fees in connection with the Subordinate Indenture Bonds and Parity Obligations including, without limitation, costs and fees of the Trustee, Consultants, Counsel, Bond Counsel and the Commission.

"Annual Debt Service" means (a) The amount of principal and interest paid or payable with respect to Subordinate Indenture Bonds in a Fiscal Year plus (b) Reimbursement Obligations paid or payable by the Commission in such Fiscal Year (but only to the extent they are not duplicative of such principal and interest), plus (c) Approved Swap Agreement payments paid or payable by the Commission in such Fiscal Year, minus (d) the amounts, if any, paid or payable to the Commission in such Fiscal Year with respect to Approved Swap Agreements, provided that the difference between the amounts described in clauses (c) and (d) shall be included only to the extent that such difference would not be recognized as a result of the application of the assumptions set forth below. The following assumptions shall be used to determine the Annual Debt Service becoming due in any Fiscal Year:

(a) in determining the principal amount paid or payable with respect to Subordinate Indenture Bonds or Reimbursement Obligations in each Fiscal Year, payment shall be assumed to be made in accordance with any amortization schedule established for such Indebtedness, including amounts paid or payable pursuant to any mandatory redemption schedule for such Indebtedness;

(b) if any of the Indebtedness or proposed Indebtedness constitutes Balloon Indebtedness, then such amounts thereof as constitute Balloon Indebtedness shall be treated as if such Indebtedness is to be amortized in substantially equal annual installments of principal and interest over a term of 25 years from the date of issuance of such Indebtedness. Anything to the contrary in the Subordinate Indenture notwithstanding, during the year preceding the final maturity date of such Indebtedness, all of the principal thereof shall be considered to be due on such maturity date unless the Commission provides to the Trustee a certificate of a Financial Consultant certifying that, in its judgment, the Commission will be able to refinance such Balloon Indebtedness, in which event the Balloon Indebtedness shall be amortized over the term of the Indebtedness expected to refinance such Balloon Indebtedness and shall bear the interest rate specified in the certificate of the Financial Consultant;

(c) if any of the Indebtedness or proposed Indebtedness constitutes Variable Rate Indebtedness, then interest in future periods shall be based on the Assumed Variable Rate; and

(d) termination or similar payments under an Approved Swap Agreement shall not be taken into account in any calculation of Annual Debt Service.

"Applicable Long-Term Indebtedness" includes Subordinate Indenture Bonds, Additional Subordinate Indenture Bonds and Parity Obligations.

"Approved Swap Agreement" shall have the meaning set forth under "Approved and Parity Swap Obligations" of this Appendix C.

"Assumed Variable Rate" means in the case of (a) Outstanding Variable Rate Indebtedness, the average interest rate on such Indebtedness for the most recently completed 12-month period; and (b) proposed Variable Rate Indebtedness, (1) which will, in the opinion of Bond Counsel delivered at the time of the issuance thereof be excluded from gross income for federal income tax purposes, the average of the Security Industry and Financial Markets Association Municipal Swap Index as the successor to the Bond Market Association Swap Index ("SIFMA Index") for the 12 months ending 7 days preceding the date of calculation plus 100 basis points, or (2) in the case of Subordinate Indenture Bonds not described in clause (1), the London Interbank Offered Rate ("LIBOR") most closely resembling the reset period for the Variable Rate Indebtedness plus 100 basis points; provided that if the SIFMA Index or LIBOR shall cease to be published, the index to be used in its place shall be that index which the Commission in consultation with the Financial Consultant determines most closely replicates such index, as set forth in a certificate of a Commission Official filed with the Trustee.

"Authorized Denominations" means with respect to any Additional Subordinate Indenture Bonds issued under a Supplemental Indenture, those denominations specified in such Supplemental Indenture and with respect to the 2019A Subordinate Bonds, $5,000 and multiples in excess thereof.

"Balloon Indebtedness" means Long-Term Indebtedness of which 25% or more of the principal matures in the same Fiscal Year and is not required by the documents pursuant to which such Indebtedness was issued to be amortized by payment or redemption prior to that Fiscal Year, provided that such Indebtedness will not constitute Balloon Indebtedness if the Trustee is provided a certificate of a Commission Official certifying that such Indebtedness is not to be treated as Balloon Indebtedness (because, by way of example, such Indebtedness is intended to serve as "wrap around" Indebtedness).

"Bank" means as to any particular Series of Subordinate Indenture Bonds, each Person (other than a Bond Insurer or PennDOT) providing a letter of credit, a line of credit, a guaranty or another credit or liquidity enhancement facility as designated in the Supplemental Indenture providing for the issuance of such Subordinate Indenture Bonds.

"Bank Fee" means any commission, fee or expense payable to a Bank pursuant to a Reimbursement Agreement (but not amounts payable as reimbursement for amounts drawn under a Credit Facility or interest on such amounts).

"Bankruptcy Law" means Title 9 of the United States Code, as amended from time to time, and any successor to or replacement of such Title and any other applicable federal or state bankruptcy, insolvency or similar law.

"Beneficial Owner" means the beneficial owner of any Subordinate Indenture Bond which is held by a nominee.

"Bond Buyer Index" means shall mean the Bond Buyer 20 Bond Index as published weekly in "The Bond Buyer". If such Index shall cease to be published, the Financial Consultant shall select another index which shall be reflective of the Commission's fixed borrowing cost.

"Bond Counsel" means any attorney or firm of attorneys whose experience in matters relating to the issuance of obligations by states and their political subdivisions is nationally recognized.

"Bond Insurer" means as to any particular maturity or any particular Series of Subordinate Indenture Bonds, the Person undertaking to insure such Subordinate Indenture Bonds as designated in a Supplemental Indenture providing for the issuance of such Subordinate Indenture Bonds.

"Book-Entry-Only System" means a system similar to the system described in the Subordinate Indenture pursuant to which bonds are registered in book-entry form.

"Business Day" means a day other than (i) a Saturday and Sunday, (ii) a day on which the Trustee or banks and trust companies in New York, New York are authorized or required to remain closed, or (iii) a day on which the New York Stock Exchange is closed.

"Chief Engineer" means the employee of the Commission designated its "Chief Engineer" or any successor title.

"Class" means the Revenue Bonds or their Holders, collectively, or the Special Revenue Bonds or their Holders, collectively, or any future type of Subordinate Indenture Bond, unique in its security or purposes in relation to other Subordinate Indenture Bonds, or its Holders, collectively.

"Code" means the Internal Revenue Code of 1986, as amended, and the regulations proposed or in effect with respect thereto and promulgated thereunder.

"Commonwealth" means the Commonwealth of Pennsylvania.

"Commission Official" means any commissioner, director, officer or employee of the Commission authorized to perform specific acts or duties by resolution duly adopted by the Commission.

"Commission Payments" means the covenant by the Commission and the payments made by the Commission, all as set forth in the section "Commission Payments," with respect to payments to be made to the Trustee.

"Consultant" means a Person who shall be independent, appointed by the Commission as needed, qualified and having a nationwide and favorable reputation for skill and experience in such work for which the Consultant was appointed. In those situations in which a Consultant is appointed to survey risks and to recommend insurance coverage, such Consultant may be a broker or agent with whom the Commission transacts business.

"Counsel" means an attorney or law firm (who may, without limitation, be counsel for the Commission, the Commonwealth or other governmental entity or agency of the Commonwealth) not unsatisfactory to the Trustee.

"Credit Facility" means any letter of credit, line of credit, standby letter of credit, DSRF Security, indemnity or surety insurance policy or agreement to purchase a debt obligation or any similar extension of credit, credit enhancement or liquidity support obtained by the Commission from a responsible financial or insurance institution, to provide for or to secure payment of principal and purchase price of, and/or interest on Subordinate Indenture Bonds pursuant to the provisions of a Supplemental Indenture under which such Subordinate Indenture Bonds are issued. The use of such definition is not intended to preclude the Commission from providing the credit or liquidity support with respect to one or more series of Subordinate Indenture Bonds directly rather than through a financial or insurance institution.

"Debt Service Reserve Fund Bonds" means shall mean the Long-Term Indebtedness specified by the Commission in the Subordinate Indenture or any Supplemental Indenture that is secured by the Debt Service Reserve Fund, as such fund is described in the forepart of this Official Statement under the caption "SECURITY FOR THE 2019A SUBORDINATE BONDS — Debt Service Reserve Fund."

"Debt Service Reserve Requirement" means the amount equal to the lesser of (1) Maximum Annual Debt Service on account of all the Debt Service Reserve Fund Bonds, (2) 10% of the aggregate Outstanding principal amount of all the Debt Service Reserve Fund Bonds or (3) 125%) of average Annual Debt Service for all Debt Service Reserve Fund Bonds for each Fiscal Year for the remaining life of such Bonds, provided in any such case that such amount does not exceed what is permitted by the Code.

"Defaulted Interest" means interest on any 2019A Subordinate Bonds which is payable but not paid on the date due.

“Depository Participants” means any Person for which the Securities Depository holds Subordinate Indenture Bonds as securities depository.

“DSRF Security” shall have the meaning set forth in the section of this Official Statement “Debt Service Reserve Fund.”

“Enabling Acts” shall mean Act 44, Act 89, and various Acts of the General Assembly approved on several dates, including the Act of May 21, 1937, P.L. 774, Act 211; the Act of May 24, 1945, P.L. 972; the Act of February 26, 1947, P.L. 17; the Act of May 23, 1951, P.L. 335; the Act of August 14, 1951, P.L. 1232; and the Act of September 30, 1985, P.L. 240, No. 61 to the extent not repealed by Act 44.

“Event of Bankruptcy” means the filing of a petition in bankruptcy (or other commencement of a bankruptcy or similar proceedings) by or against the Commission as debtor, under Bankruptcy Law.

“Financial Consultant” means any financial advisor or firm of financial advisors of favorable national reputation for skill and experience in performing the duties for which a Financial Consultant is required to be employed pursuant to the provisions in the Subordinate Indenture and who is retained by the Commission as a Financial Consultant for the purposes of the Subordinate Indenture.

“Fiscal Year” means the period commencing on the first day of June and ending on the last day of May of the following year.

“Fitch” means Fitch, Inc., its successors and assigns, and, if such corporation shall for any reason no longer perform the functions of a securities rating agency, “Fitch” shall be deemed to refer to any other nationally recognized rating agency designated by the Commission.

“Fixed Rate Bonds” means the Subordinate Indenture Bonds issued at a fixed interest rate.

“Funding Agreement” means the Lease and Funding Agreement dated as of October 14, 2007, as it may be amended, including Amendment Number One to Lease and Funding Agreement dated April 4, 2014 between the Commission and PennDOT.

“Funding Agreement Rental Payments” means payments to PennDOT required by the Funding Agreement.

“Government Obligations” means:

(a) direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed as to full and timely payment by, the U.S.,

(b) obligations issued by a Person controlled or supervised by and acting as an instrumentality of the U.S., the payment of the principal of and interest on which is fully and unconditionally guaranteed as a full faith and credit obligation of the U.S. (including any securities described in clause (a) above issued or held in book entry form in the name of the Trustee only on the books of the Department of Treasury of the U.S.),

(c) any certificates or any other evidences of an ownership interest in obligations or specified portions thereof (which may consist of specified portions of the interest thereon) of the character described in clause (a) or (b) above, which obligations are held by a bank or trust company organized and existing under the laws of the U.S. or any state thereof in the capacity of custodian,

(d) stripped obligations of interest issued by the Resolution Funding Corporation pursuant to the Financial Institutions Reform, Recovery and Enforcement Act of 1989 ("FIRREA"), the interest on which, to the extent not paid from other specified sources, is payable when due by the Secretary of the Treasury pursuant to FIRREA, and

(e) obligations of any state or political subdivision thereof or any agency or instrumentality of such a state or political subdivision, provided that cash, obligations described in clause (a), (b), (c) or (d) above, or a combination thereof have been irrevocably pledged to and deposited into a segregated escrow account for the payment when due of the principal or redemption price of and interest on such obligations, and provided further that, at the time of purchase, such obligations are rated by the Rating Agency in its highest rating category.

"Immediate Notice" - notice transmitted by electronic means, in writing, by telecopier or other electronic means or by telephone (promptly confirmed in writing) and received by the Person to whom it was addressed.

"Indebtedness" means any obligation or debt incurred for money borrowed.

"Interest Payment Date" means each June 1 and December 1, commencing December 1, 2019.

"Issuance Cost" means costs incurred by or on behalf of the Commission in connection with the issuance of Subordinate Indenture Bonds including, without limitation, the following: payment of financial, legal, accounting and appraisal fees and expenses, the Commission's fees and expenses attributable to the issuance of the Subordinate Indenture Bonds, the cost of printing, engraving and reproduction services, fees and expenses incurred in connection with any Credit Facility and any Approved Swap Obligation, legal fees and expenses for Bond Counsel, Commission's counsel, Trustee's counsel, Disclosure Counsel and Underwriter's counsel relating to the issuance of the Subordinate Indenture Bonds, the initial or acceptance fee of the Trustee, and all other fees, charges and expenses incurred in connection with the issuance of the Subordinate Indenture Bonds and the preparation of the Subordinate Indenture.

"Letter of Representations" means the letter of representations or similar document executed by the Commission and delivered to the Securities Depository (and any amendments thereto or successor agreements) for one or more Series of Book Entry Bonds.

"Long-Term Indebtedness" means all Indebtedness, which is not (a) Short-Term Indebtedness or (b) Subordinated Indebtedness.

"Maximum Annual Debt Service" means at any point in time, the maximum amount of annual Debt Service on all applicable Long-Term Indebtedness paid or payable in the then current or any future Fiscal Year.

"Moody's" means Moody's Investors Service, Inc., a corporation organized and existing under the laws of the State of Delaware, its successors and their assigns, and, if such corporation shall for any reason no longer perform the functions of a securities rating agency, "Moody's" shall be deemed to refer to any other nationally recognized rating agency designated by the Commission.

"Motor License Fund" means the Commonwealth Motor License Fund.

"Original Subordinate Indenture Bonds" means the Commission's Subordinated Turnpike Revenue Bonds, Series 2008A, issued in an aggregate principal amount of $244,855,000.

"Outstanding" or "outstanding" in connection with Subordinate Indenture Bonds means all Subordinate Indenture Bonds which have been authenticated and delivered under the Subordinate Indenture, except:

(a) Subordinate Indenture Bonds theretofore cancelled or delivered to the Trustee for cancellation under the Subordinate Indenture;

(b) Subordinate Indenture Bonds which are deemed to be no longer Outstanding in accordance with the section "Defeasance; Deposit of Funds for Payment of Subordinate Indenture Bonds"; and

(c) Subordinate Indenture Bonds in substitution for which other Subordinate Indenture Bonds have been authenticated and delivered pursuant to the Subordinate Indenture.

In determining whether the owners of a requisite aggregate principal amount of Subordinate Indenture Bonds Outstanding have concurred in any request, demand, authorization, direction, notice, consent or waiver under the provisions in the Subordinate Indenture, Subordinate Indenture Bonds which are held by or on behalf of the Commission (unless all of the Outstanding Subordinate Indenture Bonds are then owned by the Commission) shall be disregarded for the purpose of any such determination.

"Parity Obligations" means with respect to Revenue Bonds, Revenue Bonds Parity Obligations and, with respect to Special Revenue Bonds, Special Revenue Bonds Parity Obligations, as separately secured in accordance with the Subordinate Indenture.

"Parity Swap Agreement" shall have the meaning set forth in this Appendix C in the section entitled "Approved and Parity Swap Obligations."

"Parity Swap Agreement Counterparty" means the counterparty to a Parity Swap Agreement with the Commission or with the Trustee.

"Paying Agent" means with respect to any series of Subordinate Indenture Bonds, that Person appointed pursuant to the Subordinate Indenture to make payments to Subordinate

Indenture Bondholders of interest and/or principal pursuant to the terms of the Subordinate Indenture, which initially shall be the Trustee.

"Payments" means the Funding Agreement, grant or other payments made to PennDOT pursuant to the provisions of Act 44 or the Funding Agreement.

"PennDOT" means the Pennsylvania Department of Transportation.

"Permitted Investments" means (to the extent permitted by law):

(a) Government Obligations;

(b) obligations issued or guaranteed as to full and timely payment of principal and interest by any agency or Person controlled or supervised by and acting as an instrumentality of the U.S., pursuant to authority granted by the U.S. Congress;

(c) obligations of the Governmental National Mortgage Association, Farmers Home Administration, Federal Financing Bank, Federal Housing Administration, Maritime Administration and Public Housing Authorities, provided that the full and timely payment of the principal and interest on such obligations shall be unconditionally guaranteed by the U.S.;

(d) obligations of the Federal Intermediate Credit Corporation and of the Federal National Mortgage Association;

(e) obligations of the Federal Banks for Cooperation;

(f) obligations of Federal Land Banks;

(g) obligations of Federal Home Loan Banks; provided that the obligations described in clauses (c) through (f) above shall constitute Permitted Investments only to the extent that the Rating Agency has assigned a rating to such obligations which is not lower than the highest rating assigned by such Rating Agency to any series of Subordinate Indenture Bonds then Outstanding;

(h) certificates of deposit of any bank, savings and loan or trust company organized under the laws of the U.S. or any state thereof, including the Trustee or any holder of the Subordinate Indenture Bonds, provided that such certificates of deposit shall be fully collateralized (with a prior perfected security interest), to the extent they are not insured by the Federal Deposit Insurance Corporation, by Permitted Investments described in (a), (b), (c), (d), (f) or (g) above having a market value at all times equal to the uninsured amount of such deposit;

(i) Money market funds registered under the Investment Company Act of 1940, as amended, whose shares are registered under the Securities Act of 1933, as amended, including funds for which the Trustee, its parent, its affiliates or its subsidiaries provide investment advisory or other management services, and which are rated by S&P, Moody's and Fitch in one of their two highest rating categories;

(j) investment agreements (which term, for purposes of this clause, shall not include repurchase agreements) with a Qualified Financial Institution;

(k) repurchase agreements with banks or primary government dealers reporting to the Federal Reserve Bank of New York (“Repurchases”), including but not limited to the Trustee and any of its affiliates, provided that each such repurchase agreement results in transfer to the Trustee of legal and equitable title to, or the granting to the Trustee of a prior perfected security interest in, identified Permitted Investments described in (a), (b), (c), (d), (e), (f) or (g) above which are free and clear of any claims by third parties and are segregated in a custodial or trust account held either by the Trustee or by a third party (other than the Repurchaser) as the agent solely of, or in trust solely for the benefit of, the Trustee, provided that Government Obligations acquired pursuant to such repurchase agreements shall be valued at the lower of the then current market value of such Government Obligations or the repurchase price thereof set forth in the applicable repurchase agreement;

(1) Bonds or notes issued by any state or municipality which are rated by S&P, Moody’s and Fitch in one of their two highest rating categories;

(l) Commercial paper rated in the highest short term, note or commercial paper Rating Category by S&P, Moody’s and Fitch;

(m) Any auction rate certificates which are rated by S&P, Moody’s and Fitch in one of their two highest rating categories;

(n) Corporate bonds and medium term notes rated at least “AA-” by Moody’s

and S&P;

(o) Asset-backed securities rated in the highest rating category by Moody’s and S&P; or

(p) Any other investment approved by the Commission for which confirmation is received from the Rating Agency that such investment will not adversely affect such Rating Agency’s rating on the Subordinate Indenture Bonds.

“Person” means an individual, public body, a public instrumentality, a corporation, a limited liability company, a partnership, limited liability partnership, an association, a joint stock company, a trust and any unincorporated organization.

“Policy Costs” means a periodic fee or charge required to be paid to maintain a DSRF Security.

“Project” or “Cost” means any financing which is authorized by the Enabling Acts or which may be hereafter authorized by law.

“Projected Annual Debt Service” means for any future period of time, shall equal the amount of Maximum Annual Debt Service on all Long-Term Indebtedness then Outstanding and on any Long-Term Indebtedness proposed to be issued.

"Projected Debt Service Coverage Ratio" means for the immediately two following Fiscal Years, the ratio determined by dividing the projected amounts to be paid into the General Reserve Fund for each of such years by the Projected Annual Debt Service for each of such years.

"Qualified Financial Institution" - (a) any U.S. domestic institution which is a bank, trust company, national banking association or a corporation, including the Trustee and any of its affiliates, subject to registration with the Board of Governors of the Federal Reserve System under the Bank Holding Company Act of 1956, or a member of the National Association of Securities Dealers, Inc. whose unsecured obligations or uncollateralized long-term debt obligations have been assigned a rating within the two highest rating categories by the Rating Agency or which has issued a letter of credit, contract, agreement or surety bond in support of debt obligations which have been so rated; (b) an insurance company with a claims-paying ability or a corporation whose obligations are guaranteed by an insurance company (in the form of an insurance policy) or by an insurance holding company rated in the highest rating category by the Rating Agency or whose unsecured obligations or uncollateralized long-term debt obligations have been assigned a rating within the highest rating category by the Rating Agency; or (c) any banking institution whose unsecured obligations or uncollateralized long-term debt obligations have been assigned a rating within one of the two highest rating categories by the Rating Agency.

"Rate Covenant" means the requirement to establish and maintain a schedule of Tolls sufficient to provide the funds required, as more fully described in the forepart of this Official Statement under the caption "SECURITY FOR THE 2019A SUBORDINATE BONDS - Rate Covenant."

"Rating Agency" means Fitch, Moody's, S&P and such other nationally recognized securities rating agency as may be so designated in writing to the Trustee by a Commission Official.

"Rating Category" means each major rating classification established by the Rating Agency, determined without regard to gradations such as "1," "2" and "3" or "plus" and "minus."

"Record Date" means unless otherwise provided with respect to any series of Subordinate Indenture Bonds in a Supplemental Indenture: (a) for Subordinate Indenture Bonds on which interest is payable on the first day of a month, the fifteenth day of the immediately preceding month; or (b) for Subordinate Indenture Bonds on which interest is payable on the fifteenth day of a month, the last day of the immediately preceding month. However, in each case, if the date specified above is not a Business Day, then the Record Date shall be the Business Day next preceding the date specified above.

"Reimbursement Agreement" means an agreement between the Commission and one or more Banks pursuant to which, among other things, such Bank or Banks issue a Credit Facility with respect to Subordinate Indenture Bonds of one or more Series and the Commission agrees to reimburse such Bank or Banks for any drawings made thereunder.

"Reimbursement Obligation" means an obligation of the Commission pursuant to a Reimbursement Agreement to repay any amounts drawn under a Credit Facility and to pay interest on such drawn amounts pursuant to such Reimbursement Agreement.

"Responsible Officer" means when used with respect to the Trustee, any officer in the corporate trust department (or any successor thereto) of the Trustee, or any other officer or representative of the Trustee customarily performing functions similar to those performed by any of such officers and also means, with respect to a particular corporate trust matter, any other officer of the Trustee to whom such matter is referred because of that officer's knowledge of and familiarity with the particular subject.

"Revenue Bonds" or "Subordinate Revenue Bonds" means bonds issued pursuant to the Subordinate Indenture for the purpose of making Payments to PennDOT to finance transit programs and other purposes pursuant to Act 44, as amended by Act 89, and which are not secured by Commonwealth Motor License Fund Payments, but have a senior claim on Commission Payments.

"Revenue Bonds Parity Obligations" or "Subordinate Revenue Bonds Parity Obligations" means Revenue Bonds and all other obligations agreed by the Commission to be on a parity therewith.

"S&P" means S&P Global Ratings, a division of S&P Global Inc., a corporation organized and existing under the laws of the State of New York, its successors and their assigns, and, if such corporation shall for any reason no longer perform the functions of a securities rating agency, "S&P" shall be deemed to refer to any other nationally recognized securities rating agency designated by the Commission.

"Secured Owner" means each Person who is a Subordinate Indenture Bondholder of any Subordinate Indenture Bonds, each Parity Swap Agreement Counterparty providing a Parity Swap Agreement, each Bank providing a Credit Facility, each Bond Insurer providing a Bond insurance policy with respect to a Parity Obligation, each provider of a DSRF Security and holders of other Parity Obligations.

"Securities Depository" means a Person that is registered as a clearing agency under Section 17A of the Securities Exchange Act of 1934, as amended or whose business is confined to the performance of the functions of a clearing agency with respect to exempted securities, as defined in Section 3(a)(12) of such Act for the purposes of Section 17A thereof.

"Senior Indenture" means the Amended and Restated Trust Indenture originally dated as of July 1, 1986 and amended and restated as of March 1, 2001 between the Commission and U.S. Bank National Association, as successor trustee, as it may be amended, supplemented or replaced, in connection with the Commission's main line toll revenue bonds.

"Senior Indenture Trustee" means the legal Person that is the trustee under the Senior Indenture whether by contract or operation of law.

"Series" or "Sub-Series" means any series or sub-series of bonds issued pursuant to the Subordinate Indenture or any Supplemental Indenture.

"Short-Term Indebtedness" means all Indebtedness which matures in less than 365 days and is designated as Short-Term Indebtedness pursuant to the Subordinate Indenture. In the event a Bank has extended a line of credit or the Commission has undertaken a commercial paper or similar program, only amounts actually borrowed under such line of credit or program and repayable in less than 365 days shall be considered Short-Term Indebtedness and the full amount of such commitment or program shall not be treated as Short-Term Indebtedness to the extent that such facility remains undrawn.

"Special Record Date" means with respect to the 2019A Subordinate Bonds, the date fixed by the Trustee for payment of Defaulted Interest.

"Special Revenue Bonds" means bonds issued pursuant to the Subordinate Indenture and authorized pursuant to Section 9511.4 of Act 44 which are secured by Commonwealth Motor License Fund payments but are subordinate to Revenue Bonds with respect to their claim on Commission Payments.

"Special Revenue Bonds Parity Obligations" means Special Revenue Bonds and all other obligations agreed by the Commission to be on parity therewith with respect to their claim on Commission Payments.

"Special Revenue Bond Payments" means payments received from the Commonwealth's Motor License Fund pursuant to Act 44 for the purpose of paying debt service on Special Revenue Bonds.

"Subordinate Indenture" means the Subordinate Trust Indenture dated as of April 1, 2008 by and between the Commission and the Trustee, as supplemented and amended through the dated date of the Supplemental Subordinate Indenture No. 30, and as it may be further supplemented and amended from time to time.

"Subordinate Indenture Bond" or "Subordinate Indenture Bonds" means Original Subordinate Indenture Bonds and all other indebtedness of any kind or class, including bonds, notes, bond anticipation notes, commercial paper and other obligations, issued as Additional Subordinate Indenture Bonds under the Subordinate Indenture, other than Additional Subordinate Indenture Bonds issued as Subordinated Indebtedness.

"Subordinate Indenture Bond Owner," "Subordinate Indenture Bondholder," "Holder," "Owner" or "Registered Owner" (or the lower case version of the same) means the Person in whose name any Subordinate Indenture Bond or Subordinate Indenture Bonds are registered on the books maintained by the Subordinate Indenture Registrar.

"Subordinate Indenture Bond Registrar" means with respect to any series of Subordinate Indenture Bonds, that Person which maintains the Subordinate Indenture Bond Register pursuant to the Subordinate Indenture or such other entity designated by the Subordinate Indenture Bond Registrar to serve such function and initially shall be the Trustee.

"Subordinated Indebtedness" means the Indebtedness that is subordinated and junior in all respects to payment of all or any Series of Subordinate Indenture Bonds and other Parity

Obligations incurred under the Subordinate Indenture, provided certain prior conditions imposed by the Subordinate Indenture are met.

"Supplemental Indenture" means any supplemental indenture to the Subordinate Indenture, now or hereafter duly authorized and entered into in accordance with the provisions of the Subordinate Indenture.

"Swap Agreement" shall have the meaning set forth in the section "Approved and Parity Swap Obligations."

"System" means what are commonly referred to as the "Main Line" and the "Northeast Extension" of the Commission and any other roads for which the Commission has operational responsibility and is collecting Tolls, unless the Commission identifies such roads in a writing addressed to the Trustee (other than the "Main Line" and the "Northeast Extension") as not being part of the System for the purposes of the Subordinate Indenture. Notwithstanding the foregoing, no portion of Interstate 80 shall be deemed to be a portion of the "System" unless the Commission affirmatively makes such election in a writing to the Trustee.

"Tender Indebtedness" means any Indebtedness or portion thereof:

(a) the terms of which include (1) an option or an obligation on the part of the Secured Owner to tender all or a portion of such Indebtedness to the Commission, the Trustee, the Paying Agent or another fiduciary or agent for payment or purchase and (2) a requirement on the part of the Commission to purchase or cause to be purchased such Indebtedness or portion thereof if properly presented; and

(b) which is rated in either (1) one of the two highest long-term Rating Categories by the Rating Agency or (2) the highest short-term, note or commercial paper Rating Category by the Rating Agency.

"Tolls" means all rates, rents, fees, charges, fines or other income derived by the Commission from vehicular usage of the System, and all rights to receive the same.

"Trustee" means Wells Fargo Bank, N.A. (as successor to TD Bank, National Association), a national banking association organized and existing under the laws of the United States of America, and its successors and any entity resulting from or surviving any consolidation or merger to which it or its successors may be a party and any successor trustee at the time serving as successor trustee hereunder.

"Trust Estate" has the meaning provided in the forepart of this Official Statement under the caption "SECURITY FOR THE 2019A SUBORDINATE BONDS - 2019A Subordinate Bonds - General".

"U.S." means the United States of America.

"Variable Rate Bonds" means the Subordinate Indenture Bonds issued as Variable Rate Indebtedness.

"Variable Rate Indebtedness" means any Indebtedness the interest rate on which fluctuates from time to time subsequent to the time of incurrence. Variable Rate Indebtedness may include, without limitation, (a) "auction rate" Indebtedness, that is, Variable Rate Indebtedness (1) the interest rate applicable to which (after an initial period following the issuance thereof or the conversion thereof to such an interest rate mode) is reset from time to time through an auction or bidding system and (2) which the Commission has no obligation to repurchase in connection with the resetting of the interest rate applicable thereto except to the extent proceeds are available for such purpose either from the remarketing of such Variable Rate Indebtedness or from such other sources as identified in the Supplemental Indenture pursuant to which such Variable Rate Indebtedness was issued, (b) Tender Indebtedness, (c) commercial paper Indebtedness which is intended to be reissued and refinanced periodically, or (d) other forms of Indebtedness on which the interest fluctuates or is subject to being set or reset from time to time.

SUBORDINATE INDENTURE

Subordinate Indenture Bonds

All Subordinate Indenture Bonds shall be issued substantially and shall contain such maturities, payment terms, interest rate provisions, redemption or prepayment features and other provisions as shall be set forth in the Supplemental Indenture providing for their issuance. Subordinate Indenture Bonds include Revenue Bonds, Special Revenue Bonds and such other related bonds as the Commission may determine.

Subordinate Turnpike Revenue Bonds

Revenue Bonds shall be issued under the Subordinate Indenture for the purpose of making Payments to PennDOT to finance transit programs and other purposes pursuant to Act 44 and Act 89. The Revenue Bonds shall be senior in right of payment to the Special Revenue Bonds.

Subordinate Special Revenue Turnpike Revenue Bonds

Subordinate Special Revenue Turnpike Revenue Bonds have been issued under the Subordinate Indenture for the purpose of making Funding Agreement Rental Payments to PennDOT for the purposes of financing highway and bridge construction and paying other Costs of the Department (as defined in Act 44). The payment of debt service on the Special Revenue Bonds shall be junior in right of payment to the payment of debt service on the Revenue Bonds and the restoration of any deficiency in the Debt Service Reserve Fund for the Revenue Bonds pursuant to the Subordinate Indenture.

Limited Obligations

The Subordinate Indenture Bonds shall be limited obligations of the Commission, payable solely from the Trust Estate. The Subordinate Indenture Bonds shall constitute a valid claim of the respective owners thereof against the Trust Estate to the extent provided in the Subordinate Indenture, which is pledged to secure the payment of the principal of, redemption premium, if any, and interest on the Subordinate Indenture Bonds as provided in the Subordinate

Indenture, and which shall be utilized for no other purpose, except as expressly authorized in the Subordinate Indenture. The Subordinate Indenture Bonds shall not constitute general obligations of the Commission and under no circumstances shall the Subordinate Indenture Bonds be payable from, nor shall the holders thereof have any rightful claim to, any income, revenues, funds or assets of the Commission other than those pledged in the Subordinate Indenture as security for the payment of the Subordinate Indenture Bonds.

Additional Subordinate Indenture Bonds

The Commission will not issue or incur any other Indebtedness having a parity lien on the Trust Estate except for Additional Subordinate Indenture Bonds issued pursuant to this Section and other Parity Obligations. Additional Subordinate Indenture Bonds may be issued and the Trustee shall authenticate and deliver such Additional Subordinate Indenture Bonds when there have been filed with the Trustee the following:

(a) A copy certified by a Commission Official of the resolution or resolutions of the Commission authorizing (1) the execution and delivery of a Supplemental Indenture providing for, among other things, the date, rate or rates of interest on, interest payment dates, maturity dates and redemption provisions of such Additional Subordinate Indenture Bonds, and (2) the issuance, sale, execution and delivery of the Additional Subordinate Indenture Bonds;

(b) An original executed counterpart of the Supplemental Indenture;

(c) An opinion or opinions of Bond Counsel, addressed to the Commission and the Trustee, to the effect that (1) issuance of the Additional Subordinate Indenture Bonds is permitted under the Subordinate Indenture, (2) each of the Supplemental Indenture and the Additional Subordinate Indenture Bonds has been duly authorized, executed and delivered and is a valid, binding and enforceable obligation of the Commission, subject to bankruptcy, equitable principles and other standard legal opinion exceptions and (3) subject to the last paragraph of this Section, interest on the Additional Subordinate Indenture Bonds is not included in gross income for federal income tax purposes under the Code;

(d) A request and authorization of the Commission, signed by a Commission Official, to the Trustee to authenticate and deliver the Additional Subordinate Indenture Bonds to such Person or persons named therein after confirmation of payment to the Trustee for the account of the Commission of a specified sum (which may include directions as to the disposition of such sum);

(e) A certificate of the Commission, signed by a Commission Official, that the Commission is not in default under the Subordinate Indenture and evidence satisfactory to the Trustee that, upon issuance of the Additional Subordinate Indenture Bonds, amounts will be deposited in the Funds under the Subordinate Indenture adequate for the necessary balances therein after issuance of the Additional Subordinate Indenture Bonds (including an amount sufficient to satisfy the Debt Service Reserve Requirement if the Additional Subordinate Indenture Bonds constitute Debt Service Reserve Fund Bonds);

(f) A certificate of the Commission, signed by a Commission Official, specifying the amount of each Class of Subordinate Indenture Bonds Outstanding after issuance of the Additional Subordinate Indenture Bonds, identifying the Additional Subordinate Indenture Bonds as Revenue Bonds or Special Revenue Bonds, Short-Term Indebtedness, Long-Term Indebtedness or Subordinated Indebtedness and demonstrating with reasonable detail that the provisions of the Senior Indenture and of the Subordinate Indenture with respect to the incurrence of additional indebtedness have been met for the issuance of such Additional Subordinate Indenture Bonds; and

(g) Such further documents, moneys and securities as are required by the provisions of the Supplemental Indenture.

Anything in the Subordinate Indenture to the contrary notwithstanding, Additional Subordinate Indenture Bonds may bear interest which is included in gross income for federal income tax purposes under the Code, in which event provisions in the Subordinate Indenture requiring or referencing the exclusion of interest on Subordinate Indenture Bonds from gross income for federal income tax purposes may be ignored or modified, as appropriate, as set forth in an opinion of Bond Counsel.

Approved and Parity Swap Obligations

The Commission may enter into one or more contracts having an interest rate, currency, cash-flow, or other basis desired by the Commission (a "Swap Agreement"), including, without limitation, interest rate swap agreements, currency swap agreements, forward payment conversion agreements, futures contracts, contracts providing for payments based on levels of or changes in interest rates, currency exchange rates, stock or other indices, or contracts to exchange cash flows or a series of payments, and contracts including, without limitation, interest rate floors or caps, options, puts or calls to hedge payment, currency rate, spread or similar exposure. In the event the Commission wishes the payments to be made and received by the Commission under the Swap Agreement to be taken into account in any calculation of Annual Debt Service under the Subordinate Indenture, the Commission shall file with the Trustee the following on or before entering into the Swap Agreement (in which event, such Swap Agreement shall constitute an "Approved Swap Agreement"):

(a) A copy certified by a Commission Official of the resolution or resolutions of the Commission authorizing the execution and delivery of the Swap Agreement (no Supplemental Indenture being required unless the Commission determines it to be necessary or appropriate);

(b) An original executed counterpart of the Swap Agreement;

(c) An opinion of Bond Counsel addressed to the Commission and to the Trustee, to the effect that execution of the Swap Agreement is permitted under the laws of the Commonwealth and will not adversely affect the exclusion from gross income from interest on any Subordinate Indenture Bonds (or any other Commission bonds to which such Swap Agreement relates) for federal income tax purposes; provided that if the Swap Agreement relates to Subordinate Indenture Bonds being issued and the Swap Agreement is entered into prior to the issuance of such Subordinate Indenture Bonds, the portion of the opinion of Bond Counsel referring to tax-exempt status of the Subordinate Indenture Bonds need not be delivered until such Subordinate Indenture Bonds are issued;

(d) A certificate of the Commission, signed by a Commission Official, that the Commission is not under default under the Subordinate Indenture;

(e) Evidence that the execution of the Swap Agreement will not result in a reduction or withdrawal of the rating then assigned to any Subordinate Indenture Bonds by the Rating Agency;

(f) Evidence that the relevant provisions of the Subordinate Indenture have been met with respect to additional indebtedness as applicable to Swap Agreements; and

(g) Such further documents as are required by the Swap Agreement or Bond Counsel.

In the event the Commission wishes to enter into an Approved Swap Agreement and to have any or all of its obligations thereunder be on parity with certain other Subordinate Indenture Bonds and certain other Parity Obligations, it shall file with the Trustee the items set forth above, together with a supplemental indenture granting such parity position (in which event, such Swap Agreement shall constitute a "Parity Swap Agreement"). Upon entering into a Parity Swap Agreement, unless otherwise provided in the supplemental indenture, the Commission shall pay to the Trustee for deposit into the Interest Account the net amount payable, if any, to the Parity Swap Agreement Counterparty as if such amounts were additional amounts of interest due; and the Trustee shall pay on behalf of the Commission to the Parity Swap Agreement Counterparty, to the extent required under the Parity Swap Agreement, amounts deposited in the Interest Account. Net amounts received by the Commission or the Trustee from the counterparty pursuant to a Parity Swap Agreement shall be deposited to the credit of the Interest Account for the related Series of Subordinate Indenture Bonds or to such other account as designated by a Commission Official.

Amounts paid by or to the Commission pursuant to Approved Swap Agreements which do not constitute Parity Swap Agreements shall not be required to be made through the Trustee as described in the preceding paragraph (but shall be taken into account in calculation of Annual Debt Service as provided in the definition of such term).

Conversions of Variable Rate Indebtedness to Fixed Rate Indebtedness

The Commission may convert Variable Rate Indebtedness to a fixed rate if permitted pursuant to the terms thereof and if the Commission was in compliance with the Rate Covenant for the most recently completed Fiscal Year. If the Commission did not meet the Rate Covenant for such Fiscal Year, the Commission must treat the proposed conversion as if it constituted the issuance of Additional Subordinate Indenture Bonds by meeting the requirements set forth in the Subordinate Indenture (computing the Annual Debt Service with respect to such Variable Rate Indebtedness proposed to be converted as bearing interest at the Bond Buyer Index or such other rate as identified by a Financial Consultant as being more appropriate under the circumstances).

Commission Payments

The Commission has covenanted to make the Commission Payments as described under "SECURITY FOR THE 2019A SUBORDINATE BONDS - Commission Payments" in the forepart of this Official Statement.

In the event of any failure by the Commission to make any of the payments required to be deposited in the Interest Sub-Account or Principal Sub-Account for any outstanding Special Revenue Bonds, the Trustee shall promptly, after utilizing any available funds in the Residual Fund or the applicable Account of the Debt Service Reserve Fund, transfer to such Sub-Accounts from any balances in the Interest Sub-Account or Principal Sub-Account for the Subordinated Special Revenue Bonds such amounts as are necessary to correct such deficiencies. Notwithstanding the foregoing, any funds on deposit in the Special Revenue Bonds Receipts Account or the Special Revenue Bonds Funded Debt Service Sub-Account, or transferred from either account to the Special Revenue Bonds Interest Sub-Account or Principal Sub-Account for the payment of debt service on Special Revenue Bonds pursuant to the Subordinate Indenture, may only be used for the payment of debt service on Special Revenue Bonds and may not be used for the payment of debt service on Revenue Bonds or for any other purpose.

In the event of any failure by PennDOT or the Treasurer of the Commonwealth to deposit funds transferred from the Motor License Fund into the Special Revenue Bonds Receipts Account as required in the preceding paragraph for the payment of any interest or principal due on Special Revenue Bonds, then the Trustee shall withdraw such amounts from the Special Revenue Bonds Funded Debt Service Sub-Account and transfer the monies to the Special Revenue Bonds Interest Sub-Account or the Principal Sub-Account, as appropriate, on the applicable Interest Payment Date, principal payment date or mandatory sinking fund installment date. If monies are received from the Motor License Fund subsequent to payments being made pursuant to this Section, then such Motor License Fund monies shall be transferred from the Special Revenue Bonds Receipts Account to the Special Revenue Bonds Funded Debt Service Sub-Account.

The 2019A Subordinate Bonds do not constitute Special Revenue Bonds.

Rate Covenant

The Commission covenants that it will establish and maintain schedules of Tolls for traffic over the System as required by the Subordinate and Senior Indentures as described under "SECURITY FOR THE 2019A SUBORDINATE BONDS - Rate Covenant" in the forepart of this Official Statement.

Creation of Funds

In addition to any funds created by any Supplemental Indenture, the Subordinate Indenture creates the following funds: Commission Payments Fund, Administrative Expenses Fund, Debt Service Fund, Debt Service Reserve Fund, Motor License Fund Repayment Fund, Rebate Fund, and Residual Fund. Amounts deposited in such funds shall be held in trust by the Trustee until applied as directed under the Subordinate Indenture. Such funds are further described in the forepart of this Official Statement under each respective fund name under the overall caption "SECURITY FOR THE 2019A SUBORDINATE BONDS".

Rebate Fund

The Commission covenants to calculate and to pay directly to the government of the U.S. all amounts due for payment of "arbitrage rebate" under Section 148(f) of the Code with respect to any Subordinate Indenture Bonds. Nevertheless, the Commission in the future may deposit with the Trustee or direct the Trustee to deposit in the Rebate Fund amounts held in any Fund hereunder for any or all Series of Subordinate Indenture Bonds (which direction shall specify the procedures for collection and payment of amounts due in respect of arbitrage rebate) if (a) required under any amendments to Section 148(f) of the Code or (b) the Commission otherwise determines that the funding of the Rebate Fund is necessary or appropriate. The Rebate Fund is a trust fund but the amounts therein do not constitute part of the Trust Estate. Amounts on deposit in the Rebate Fund may be used solely to make payments to the U.S. under Section 148 of the Code and to pay costs related to the calculation of the amounts due. Upon satisfaction of the Commission's covenants described above, any amounts remaining in the Rebate Fund shall be deposited in the Commission Payments Fund.

Moneys Set Aside for Principal and Interest Held in Trust

All moneys which the Trustee shall have set aside (or deposited with any paying agent) for the purpose of paying any of the Subordinate Indenture Bonds, either at the maturity thereof or upon call for redemption, shall be held in trust for the respective holders of the applicable Series of such Subordinate Indenture Bonds. However, any moneys which shall be so held or deposited by the Trustee, and which shall remain unclaimed by the holders of such Subordinate Indenture Bonds for the period of five years after the date on which such Subordinate Indenture Bonds shall have become payable, shall be paid to the Commission upon its written request or to such officer, board or body as may then be entitled by law to receive the same; thereafter the holders of such Subordinate Indenture Bonds shall look only to the Commission or to such officer, board or body, as the case may be, for payment and then only to the extent of the amounts so received without any interest thereon, and the Trustee shall have no responsibility with respect to such moneys.

Additional Security

Except as otherwise provided or permitted in the Subordinate Indenture, the Trust Estate securing Subordinate Indenture Bonds issued under the terms of the Subordinate Indenture shall be shared on a parity with other Parity Obligations as provided in the Subordinate Indenture. The Commission may, however, in its discretion, provide additional security or credit enhancement for specified Parity Obligations with no obligation to provide such additional security or credit enhancement to other Parity Obligations, except that no additional security or credit enhancement shall be provided unless there shall have been first delivered to the Trustee an opinion of Bond Counsel that the exclusion from gross income of interest on any Subordinate Indenture Bonds for federal income tax purposes will not be adversely affected thereby. Moreover, the Commission may provide in a Supplemental Indenture that Subordinate Indenture

Bonds issued thereunder are not secured, or are secured only in part or only under certain circumstances, by the Trust Estate.

Investment of Moneys

Moneys held in any of the funds or accounts under the Subordinate Indenture may be retained uninvested, if deemed necessary by the Commission, as trust funds and secured as provided in the Subordinate Indenture or may be invested in Permitted Investments. All investments shall be made by the Trustee upon the oral request of the Commission, which is confirmed in writing by a Commission Official specifying the account or fund from which moneys are to be invested and designating the specific Permitted Investments to be acquired.

All investments must be subject to withdrawal or must mature or be subject to repurchase or redemption by the holder, not later than the earlier of (a) the date or dates set forth for similar investments in the applicable Supplemental Indenture or (b) the date on which the moneys may reasonably be expected to be needed for the purpose of the Subordinate Indenture.

Investments acquired with the moneys in any fund or account shall be a part of such fund or account and, for the purposes of determining the amount in such fund or account, shall be valued at their then fair market value. The interest or income received on an investment shall remain in the fund or account to which the investment is credited except for interest or income received on investments credited to the 2019A Subordinate Revenue Bonds Clearing Fund which amounts shall be transferred to the 2019A Subordinate Revenue Bonds Interest Sub-Account of the Revenue Bonds Account of the Debt Service Fund as directed under Supplemental Subordinate Indenture No. 30.

The Trustee shall withdraw, redeem or sell all or a portion of any investment upon receipt of the written direction from the Commission or upon a determination by the Trustee that moneys in such fund or account are to be applied or paid by the Trustee pursuant to the provisions of the Subordinate Indenture, and the proceeds thereof shall be deposited by the Trustee in the appropriate fund or account. Neither the Trustee nor the Commission shall be liable or responsible for any depreciation in the value of the Permitted Investments or for any losses incurred upon any unauthorized disposition thereof.

Each fund and account held under the Subordinate Indenture shall be valued by the Trustee at least once annually within thirty days after the end of each Fiscal Year.

Payment of Principal, Interest and Premium

The Commission covenants that it will promptly pay, by disbursement to the Trustee which is authorized to make the required payments, the principal of, premium, if any, and the interest on every Subordinate Indenture Bond and other Parity Obligations issued or agreed by the Commission to be parity under the provisions of the Subordinate Indenture at the places, on the dates and in the manner provided in the Subordinate Indenture and in said Subordinate Indenture Bonds and other Parity Obligations and will promptly pay all Administrative Expenses and any payments required to be made by the Commission to the Commonwealth's Motor License Fund. Except as otherwise provided in the Subordinate Indenture, all such monies are payable solely from Commission Payments, which Commission Payments are pledged to the payment thereof in the manner and to the extent provided in the Subordinate Indenture. Neither the general credit of the Commission nor the general credit nor the taxing power of the Commonwealth or any political subdivision, agency or instrumentality thereof is pledged for the payment of the obligations described in the Subordinate Indenture.

Limitations on Issuance of Additional Subordinate Indenture Bonds and Execution of Approved Swap Agreements

(a) Long-Term Indebtedness.

(1) The Commission agrees that it will not issue any Additional Subordinate Indenture Bonds constituting Long-Term Indebtedness unless prior to or contemporaneously with the incurrence thereof, the relevant provisions of the Senior Indenture and the Subordinate Indenture are met after taking into account as part of the calculations the issuance of such Additional Subordinate Indenture Bonds under the Subordinate Indenture and there are delivered to the Trustee:

(i) a certificate of a Commission Official certifying that the amount paid into the General Reserve Fund under the Senior Indenture for the most recent Fiscal Year preceding the delivery of such certificate for which audited financial statements are available divided by the Annual Debt Service on Outstanding Revenue Bonds including any Revenue Bonds to be issued at that time, and on Outstanding Revenue Bonds Parity Obligations, including Revenue Bonds Parity Obligations to be issued at that time, was not less than 1.15; and

(ii) a certificate of a Commission Official certifying that the amount paid into the General Reserve Fund under the Senior Indenture for the most recent Fiscal Year preceding the delivery of such certificate for which audited financial statements are available divided by the Annual Debt Service on Outstanding Special Revenue Bonds including any Special Revenue Bonds to be issued at that time, and on Outstanding Special Revenue Bonds Parity Obligations, including Special Revenue Bonds to be issued at that time, was not less than 1.00; or

(iii) a report of a Consultant to the effect that the Projected Debt Service Coverage Ratio is not less than 1.10 for the Outstanding Bonds, including any Bonds to be issued at that time, and Parity Obligations.

(2) If the Long-Term Indebtedness is being incurred solely for the purposes of refunding, repurchasing or refinancing (whether in advance or otherwise) any outstanding Long-Term Indebtedness, a certificate of a Commission Official certifying the Maximum Annual Debt Service on all Applicable Long-Term Indebtedness prior to the issuance of the proposed Long-Term Indebtedness is greater than the Maximum Annual Debt Service on all Applicable Long-Term Indebtedness after the issuance of such proposed Long-Term Indebtedness.

(3) If the Long-Term Indebtedness being incurred consists of Special Revenue Bonds, a certificate provided by or on behalf of the Commission certifying that the balance in the Motor License Fund at the end of the fiscal year immediately preceding the issuance of the Special Revenue Bonds is equal to at least three times the Maximum Annual

Debt Service on all Outstanding Special Revenue Bonds after the issuance of the proposed Special Revenue Bonds.

(4) If the additional Series of Subordinate Indenture Bonds are refunding Subordinate Indenture Bonds issued to refund other Subordinate Indenture Bonds, the following shall be delivered:

(i) Evidence satisfactory to the Trustee that the Commission has made provision as required by the Subordinate Indenture for the payment or redemption of all Subordinate Indenture Bonds to be refunded;

(ii) A written determination by the Trustee or by a firm of certified independent public accountants or other qualified firm acceptable to the Commission and the Trustee that the proceeds (excluding accrued interest) of the refunding Subordinate Indenture Bonds, together with any other money to be deposited for such purpose with the Trustee, or in escrow for the benefit of the Trustee, upon the issuance of the refunding Bonds and the investment income to be earned on funds held by, or in escrow for the benefit of, the Trustee for the payment or redemption of other Subordinate Indenture Bonds will be sufficient without reinvestment to pay, whether upon redemption or at maturity, the principal of and premium, if any, and interest on the Subordinate Indenture Bonds to be refunded and the estimated expenses incident to the refunding; and

(iii) Either a written determination by the Trustee or by a firm of certified independent public accountants or other qualified firm acceptable to the Commission and the Trustee that after the issuance of the refunding Subordinate Indenture Bonds and the provision for payment or redemption of all Subordinate Indenture Bonds to be refunded, Debt Service for each Fiscal Year in which there will be Outstanding Subordinate Indenture Bonds (not including Subordinate Indebtedness) of any Series not to be refunded will not be more than Debt Service for the Fiscal Year would have been respectively in each case on all Outstanding Revenue Bonds and on all Outstanding Special Revenue Bonds (in each case not including Subordinate Indebtedness) immediately before the issuance of the refunding Bonds, including the Subordinate Indenture Bonds, to be refunded.

(b) Subordinated Indebtedness. The Commission may incur Indebtedness (hereinafter referred to as "Subordinated Indebtedness") without limit which is subordinated and junior in all respects to payment of all or any Series of Subordinate Indenture Bonds and other Parity Obligations incurred under the Subordinate Indenture so that the same is payable as to principal and interest once all other payments have been made under the Subordinate Indenture from the amounts on deposit to the credit of the Commission Payments Fund as long as prior to or contemporaneously with the incurrence thereof, there is delivered to the Trustee:

(1) a certificate of a Commission Official certifying that the Rate Covenant would have been met during the preceding Fiscal Year taking into account the Maximum Annual Debt Service on such Subordinated Indebtedness, and

(2) the other items listed in the Subordinate Indenture for incurring Additional Subordinate Indenture Bonds (as the same may be modified to reflect the fact that such Indebtedness is Subordinated Indebtedness).

Such Subordinated Indebtedness and the payment thereof may be secured by a lien and pledge (a) subordinate to that of the Subordinate Indenture Bonds or any Series thereof on the Commission Payments or (b) prior to, on a parity with or subordinate to, the Subordinate Indenture Bonds or any Series thereof on Other Revenues, in which event the Commission and the Trustee may establish such other accounts under the Subordinate Indenture as they deem necessary or appropriate.

(c) Approved Swap Agreements. The Commission agrees that it will not enter into any Approved Swap Agreement unless prior to or contemporaneously with the incurrence thereof, the provisions of the Subordinate Indenture are met and there is delivered to the Trustee one of the certificates or reports required in subsection (b) above, which takes into account the expected payments by and to the Commission pursuant to such Approved Swap Agreement in calculating Annual Debt Service.

Covenant as to Funding Agreement

The Commission covenants it will not agree to any amendments or supplements to the Funding Agreement or waivers thereunder which adversely affect the holders of the Subordinate Indenture Bonds. The Commission covenants, as set forth in the Funding Agreement, that its obligations to pay Funding Agreement Rental Payments shall be subordinate obligations of the Commission, payable from amounts in the General Reserve Fund only as permitted by any financing documents, financial covenants, liquidity policies or agreements in effect of the Commission. The Commission agrees that Funding Agreement Rental Payments will not be made when there is an outstanding uncured Event of Default under the Senior Indenture or the Subordinate Indenture.

Tax Covenants

The Commission covenants that it will neither make nor direct the Trustee to make any investment or other use of the proceeds of any Series of tax exempt Subordinate Indenture Bonds issued under the Subordinate Indenture that would cause such Series of tax exempt Subordinate Indenture Bonds to be "arbitrage bonds", as that term is defined in Section 148(a) of the Code, and that it will comply with the requirements of the Code throughout the term of such Series of tax exempt Subordinate Indenture Bonds. The Trustee covenants that in those instances where it exercises discretion over the investment of funds, it shall not knowingly make any investment inconsistent with the foregoing covenants.

Notwithstanding the foregoing, the Commission hereby reserves the right to elect to issue one or more Series of Additional Subordinate Indenture Bonds, the interest on which is not exempt from federal income taxation. If such election is made prior to the issuance of such Additional Subordinate Indenture Bonds, then the covenants contained in this Section shall not apply to such Series of Subordinate Indenture Bonds.

The Commission covenants that it (1) will take, or use its best efforts to require to be taken, all actions that may be required of the Commission for the interest on the Subordinate Indenture Bonds to be and remain not included in gross income for federal income tax purposes and (2) will not take or authorize to be taken any actions within its control that would adversely affect that status under the provisions of the Code.

Events of Default

Each of the following is an "Event of Default" with respect to a particular Series under the Subordinate Indenture:

(a) Default in the payment of any installment of principal, redemption premium, if any, interest or other amount due on that particular Class of Subordinate Indenture Bonds when the same becomes due and payable;

(b) Default in the payment by the Commission of any other Parity Obligation of that particular Class;

(c) With respect only to Special Revenue Bonds and subject to the provisions of the Subordinate Indenture, default in the performance or breach of the covenants contained in the Subordinate Indenture;

(d) Subject to the provisions of the Subordinate Indenture, default in the performance or breach of any other covenant, warranty or representation of the Commission contained in the Subordinate Indenture (other than a default under subsections (a) and (b) of this. "Events of Default" Section);

(e) The occurrence of any Event of Default under any Supplemental Indenture with respect to that particular Class; or

(f) (1) The occurrence of an Event of Bankruptcy of the Commission; (2) the appointment of a receiver, liquidator, assignee, custodian, trustee, sequestrator or other similar official of the Commission or of any substantial portion of its property, which appointment shall not have been rescinded or stayed within ninety (90) days after taking effect; or (3) the ordering of the winding up or liquidation of the affairs of the Commission.

Remedies

(a) The Trustee, upon the occurrence of an Event of Default may, and upon the written request of the holders of not less than a majority in aggregate principal amount of the Revenue Bonds Outstanding and subject, to the requirements of the Subordinate Indenture, shall proceed to protect and enforce its rights and the rights of the holders of the applicable Series of Subordinate Indenture Bonds under the Subordinate Indenture by a suit or suits in equity or at law, either for the specific performance of any covenant or agreement contained in the Subordinate Indenture or in aid of the execution of any power granted in the Subordinate Indenture, or for the enforcement of any other appropriate legal or equitable remedy, as the Trustee, in reliance upon the advice of Counsel, may deem most effective to protect and enforce any of the rights or interests of the applicable Series of Subordinate Indenture Bondholders under the applicable Series of Subordinate Indenture Bonds or the Subordinate Indenture.

(b) Without limiting the generality of the foregoing, the Trustee shall at all times have the power to institute and maintain such proceedings as it may deem expedient: (1) to prevent any impairment of the Trust Estate by any acts which may be unlawful or in violation of the Subordinate Indenture, and (2) to protect its interests and the interests of the Subordinate Indenture Bondholders in the Trust Estate and in the issues, profits, revenues and other income arising therefrom, including the power to maintain proceedings to restrain the enforcement of or compliance with any governmental enactment, rule or order which may be unconstitutional or otherwise invalid, if the enforcement of, or compliance with, such enactment, rule or order would impair the Trust Estate or be prejudicial to the interests of the Subordinate Indenture Bondholders or the Trustee.

(c) The Trustee, upon the occurrence of an Event of Default may, and upon the written request of the Holders of not less than a majority in aggregate principal amount of the Special Revenue Bonds Outstanding, appoint a co-trustee to represent the holders of the Special Revenue Bonds in all proceedings to enforce payments from the Motor License Fund and the Special Revenue Bonds Funded Debt Service Sub-Account except as to any enforcement relating to the covenants of Act 44, which shall require the written direction of the Holders of not less than twenty-five (25%) of the principal amount of the Special Revenue Bonds then Outstanding, as set forth under the section "Covenants as to Act 44 - Special Revenue Bonds" in the Subordinate Indenture.

(d) Notwithstanding anything to the contrary contained in the Subordinate Indenture, the Trustee shall proceed to protect and enforce its rights under the section "Commission Payments" and the rights of the holders of the applicable Series of Subordinate Indenture Bonds under the section "Commission Payments" by a suit or suits in equity or at law, either for the specific performance or mandamus of any covenant or agreement contained in the Subordinate Indenture in a manner that the Trustee in reliance, upon the advice of Counsel, may deem most effective to protect and enforce any of its rights under the section "Commission Payments" or the interests of the applicable Series of Subordinate Indenture Bondholders under the section "Commission Payments."

Marshaling of Assets

Upon the occurrence of an Event of Default, all moneys in all Funds (other than moneys in the Rebate Fund and the Motor License Fund Repayment Fund) shall be available to be utilized by the Trustee in accordance with the Subordinate Indenture. The rights of the Trustee under the Subordinate Indenture shall be applicable. During the continuance of any such Event of Default, all provisions of the Subordinate Indenture relating to the utilization of Funds shall be superseded by the right of the Trustee to marshal assets under the Subordinate Indenture. Subsequent to the curing or waiver of any such Event of Default, the provisions of the Subordinate Indenture relating to utilization of Funds shall be reinstated.

Trustee May File Proofs of Claim

(a) In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding under the Bankruptcy Law relating to the Commission, any other obligor upon the Subordinate

Indenture Bonds or any property of the Commission, the Trustee (whether or not the principal of the Subordinate Indenture Bonds shall then be due and payable by acceleration or otherwise, and whether or not the Trustee shall have made any demand upon the Commission for the payment of overdue principal, redemption premium, if any, and interest) shall be entitled and empowered, by intervention in such proceeding or other means:

(1) to file and prove a claim for the whole amount of the principal, redemption premium, if any, and interest owing and unpaid in respect of the Subordinate Indenture Bonds then Outstanding or for breach of the Subordinate Indenture and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and Counsel) and of the holders allowed in such proceeding; and

(2) to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same; and any receiver, assignee, trustee, liquidator, sequestrator or similar official in any such judicial proceeding is hereby authorized **by** each holder to make such payments to the Trustee and, in the event that the Trustee shall consent to the making of such payments directly to the holders, to pay to the Trustee any amount due it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and Counsel, and any other amounts due the Trustee under the Subordinate Indenture.

(b) No provision of the Subordinate Indenture empowers the Trustee to authorize or consent to or accept or adopt on behalf of any Subordinate Indenture Bondholders any plan of reorganization, arrangement, adjustment or composition affecting any of the Subordinate Indenture Bonds or the rights of any holder thereof, or to authorize the Trustee to vote in respect of the claim of any holder in any proceeding described in subsection (a) above.

Notice and Opportunity to Cure Certain Defaults

No default under (c) and (d) of the section "Events of Default" above shall constitute an Event of Default under the Subordinate Indenture until written notice of such default shall have been given to the Commission by the Trustee or by the holders of at least 25% in aggregate principal amount of the applicable Series of Subordinate Indenture Bonds Outstanding, and the Commission shall have had thirty (30) days after receipt of such notice to correct such default or cause such default to be corrected, and shall have failed to do so. In the event, however, that the default is such that it cannot be corrected within such thirty (30) day period, it shall not constitute an Event of Default if corrective action is instituted by the Commission within such period and diligently pursued (as determined by the Trustee) until the default is corrected.

Priority of Payment Following Event of Default

Any portion of the Trust Estate held or received by the Trustee, by any receiver or by any Subordinate Indenture Bond Owner pursuant to any right given or action taken under the provisions of the Subordinate Indenture, after payment of the costs and expenses of the proceedings resulting in the collection of such moneys and of the fees, expenses and liabilities incurred by the Trustee and the transfer to Secured Owners (other than Owners of the

Subordinate Indenture Bonds) of amounts to which they are entitled by virtue of their parity position, shall be deposited and applied as follows:

(a) first, to the payment to the persons entitled thereto of all installments of interest then due on the applicable Series of Revenue Bonds, with interest on overdue installments, if lawful, at their respective rates from the respective dates upon which they became due, in the order of maturity and, if the amount available shall not be sufficient to pay in full any particular installment of interest, then to the payment ratably, according to the amounts due on such installment;

(b) second, to the payment to the persons entitled thereto of the unpaid principal of any of the applicable Series of Revenue Bonds which shall have become due with interest on such Revenue Bonds at their respective rates from the respective dates upon which they became due and, if the amount available shall not be sufficient to pay in full the Revenue Bonds due on any particular date, together with such interest, then to the payment ratably, according to the amount of principal (or Compounded Amount) and interest due on such date, in each case to the persons entitled thereto, without any discrimination or privilege;

(c) third, to the payment to the persons entitled thereto of all installments of interest then due on the applicable Series of Special Revenue Bonds, with interest on overdue installments, if lawful, at their respective rates from the respective dates upon which they became due, in the order of maturity and, if the amount available shall not be sufficient to pay in full any particular installment of interest, then to the payment ratably, according to the amounts due on such installment;

(d) fourth, to the payment to the persons entitled thereto of the unpaid principal of any of the applicable Series of Special Revenue Bonds which shall have become due with interest on such Special Revenue Bonds at their respective rates from the respective dates upon which they became due and, if the amount available shall not be sufficient to pay in full the Special Revenue Bonds due on any particular date, together with such interest, then to the payment ratably, according to the amount of principal (or Compounded Amount) and interest due on such date, in each case to the persons entitled thereto, without any discrimination or privilege;

(e) fifth, to the payment of any other amounts then owing under the Subordinate Indenture, and, after said deposit into the Debt Service Fund, there shall be paid the Subordinated Indebtedness issued or incurred by the Commission pursuant to the Subordinate Indenture; and

(f) notwithstanding anything in the foregoing to the contrary, any funds on deposit in the Special Revenue Bonds Receipt Account or the Special Revenue Bonds Funded Debt Service Sub-Account may only be used for the payment of debt service on Special Revenue Bonds and may not be used for the payment of debt service on Revenue Bonds or for any other purpose and shall be applied to the payment ratably of interest and principal, according to the amount of principal (or Compounded Amount) and interest due on such date, in each case to the persons entitled thereto, without any discrimination or privilege.

Whenever moneys are to be applied pursuant to the foregoing provisions, such moneys shall be applied at such times, and from time to time, as the Trustee shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future. Whenever the Trustee shall apply such funds, it shall fix the date (which shall be an Interest Payment Date unless it shall deem another date more suitable) upon which such application is to be made and upon such date interest on the amounts of principal and interest to be paid on such date shall cease to accrue. The Trustee shall give notice of the deposit with it of any such moneys and of the fixing of any such date by mail to all Owners of Subordinate Indenture Bonds with respect to which the Event of Default occurred and shall not be required to make payment to any Subordinate Indenture Bond Owner until such Subordinate Indenture Bonds shall be presented to the Trustee for appropriate endorsement or for cancellation if fully paid.

Revenue Bondholders May Direct Proceedings

The owners of a majority in aggregate principal amount of the Revenue Bonds Outstanding shall, subject to the requirements of the Subordinate Indenture, have the right, by an instrument or instruments in writing executed and delivered to the Trustee, to direct the method and place of conducting all remedial proceedings by the Trustee under the Subordinate Indenture, provided that such direction shall not be in conflict with any rule of law or the Subordinate Indenture and that the Trustee shall have the right to decline to follow any such direction which in the opinion of the Trustee would be unduly prejudicial to the rights of Subordinate Indenture Bondholders not parties to such direction or would subject the Trustee to personal liability or expense. If no Revenue Bonds are Outstanding, the owners of a majority in aggregate principal amount of Special Revenue Bonds Outstanding shall have the right to direct all actions as set forth hereof, except as to any enforcement relating to the covenants of Act 44, which shall require the written direction of the Holders of not less than twenty-five percent (25%) of the principal amount of the Special Revenue Bonds then Outstanding, as set forth in the Subordinate Indenture. Notwithstanding the foregoing, the Trustee shall have the right to select and retain Counsel of its choosing to represent it in any such proceedings. The Trustee may take any other action which is not inconsistent with any direction pursuant to the above.

Limitations on Rights of Subordinate Indenture Bondholders

(a) No Subordinate Indenture Bondholder shall have any right to pursue any other remedy under the Subordinate Indenture or the Subordinate Indenture Bonds unless: (1) an Event of Default shall have occurred and is continuing; (2) the owners of not less than a majority in aggregate principal amount of the applicable Series of Subordinate Indenture Bonds then Outstanding have requested the Trustee, in writing, to exercise the powers hereinabove granted or to pursue such remedy in its or their name or names; (3) the Trustee has been offered indemnity satisfactory to it against costs, expenses and liabilities reasonably anticipated to be incurred; (4) the Trustee has declined to comply with such request, or has failed to do so, within sixty (60) days after its receipt of such written request and offer of indemnity; and (5) no direction inconsistent with such request has been given to the Trustee during such 60 day period by the holders of a majority in aggregate principal amount of the Subordinate Indenture Bonds Outstanding.

(b) The provisions of subsection (a) of this Section are conditions precedent to the exercise by any Subordinate Indenture Bondholder of any remedy under the Subordinate Indenture. The exercise of such rights is further subject to the provisions of the Subordinate Indenture. No one or more Subordinate Indenture Bondholders shall have any right in any manner whatever to enforce any right under the Subordinate Indenture, except in the manner provided in the Subordinate Indenture. All proceedings at law or in equity with respect to an Event of Default shall be instituted and maintained in the manner provided in the Subordinate Indenture for the equal and ratable benefit of the Subordinate Indenture Bondholders of all Subordinate Indenture Bonds Outstanding.

Unconditional Right of Subordinate Indenture Bondholder to Receive Payment

Notwithstanding any other provision of the Subordinate Indenture, any Subordinate Indenture Bondholder shall have the absolute and unconditional right to receive payment of principal of, redemption premium, if any, and interest on the Subordinate Indenture Bonds on and after the due date thereof, and to institute suit for the enforcement of any such payment.

Restoration of Rights and Remedies

If the Trustee or any Subordinate Indenture Bondholder has instituted any proceeding to enforce any right or remedy under the Subordinate Indenture, and any such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or such Subordinate Indenture Bondholder, then the Commission, the Trustee and the Subordinate Indenture Bondholders, subject to any determination in such proceeding, shall be restored to their former positions under the Subordinate Indenture, and all rights and remedies of the Trustee and the Subordinate Indenture Bondholders shall continue as though no such proceeding had been instituted.

Rights and Remedies Cumulative

No right or remedy conferred under the Subordinate Indenture upon or reserved to the Trustee is intended to be exclusive of any other right or remedy, but each such right or remedy shall, to the extent permitted by law, be cumulative of and in addition to every other right or remedy given under the Subordinate Indenture or now or hereafter existing at law, in equity or otherwise. The assertion or employment of any right or remedy under the Subordinate Indenture shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

Delay or Omission Not Waiver

No delay or omission by the Trustee or any Subordinate Indenture Bondholder to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of such Event of Default. Every right and remedy given by the Subordinate Indenture or by law to the Trustee or the Subordinate Indenture Bondholders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or the Subordinate Indenture Bondholders, as the case may be.

Waiver of Defaults

(a) The holders of a majority in aggregate principal amount of each Series of Outstanding Subordinate Indenture Bonds may, by written notice to the Trustee and subject to the requirements of the Subordinate Indenture, waive any existing default or Event of Default with respect to that particular Series and its consequences, except an Event of Default under (a) or (b) of "Events of Default" set forth above. Upon any such waiver, the default or Event of Default shall be deemed cured and shall cease to exist for all purposes. No waiver of any default or Event of Default shall extend to or effect any subsequent default or Event of Default or shall impair any right or remedy consequent thereto.

(b) Notwithstanding any provision of the Subordinate Indenture, in no event shall any Person, other than all of the affected Subordinate Indenture Bondholders, have the ability to waive any Event of Default under the Subordinate Indenture if such event results or may result, in the opinion of Bond Counsel, in interest on any of the Subordinate Indenture Bonds becoming includable in gross income for federal income tax purposes if the interest on such Subordinate Indenture Bonds was not includable in gross income for federal income tax purposes prior to such event.

Notice of Events of Default

If an Event of Default occurs of which the Trustee has or is deemed to have notice under the Subordinate Indenture the Trustee shall give Immediate Notice thereof to the Commission. Within 90 days thereafter (unless such Event of Default has been cured or waived), the Trustee shall give notice of such Event of Default to each Subordinate Indenture Bondholder then Outstanding, provided, however, that except in the instance of an Event of Default under "Events of Default" paragraphs (a) or (b), the Trustee may withhold such notice if and so long as the Trustee in good faith determines that the withholding of such notice does not materially adversely affect the interests of any Class of Subordinate Indenture Bondholders, and provided, further, that notice to Subordinate Indenture Bondholders of any Event of Default under "Events of Default" paragraphs (c) and (d) shall be subject to the provisions of the section "Priority of Payment Following Event of Default" and shall not be given until the grace period has expired.

The Trustee; Qualifications of Trustee

The Subordinate Indenture contains provisions relating to the appointment and duties of the Trustee. The Trustee under the Subordinate Indenture shall at all times be a trustee under the Subordinate Indenture which shall be a corporation or banking association organized and doing business under the laws of the U.S. or of any state, authorized under such laws to exercise corporate trust powers, which has a combined capital and surplus of at least $50,000,000, or is an affiliate of, or has a contractual relationship with, a corporation or banking association meeting such capital and surplus requirement which guarantees the obligations and liabilities of the proposed trustee, and which is subject to supervision or examination by federal or state banking authority. If such corporation or banking association publishes reports of condition at least annually, pursuant to law or the requirements of such banking authority, then for purposes hereof, the combined capital and surplus of such corporation or banking association shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time the Trustee shall cease to be eligible in accordance with the provisions hereof, it shall resign promptly in the manner and with the effect specified in the Subordinate Indenture.

Resignation or Removal of Trustee; Appointment of Successor Trustee

(a) No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to the Subordinate Indenture shall become effective until the acceptance of appointment by the successor Trustee under the Subordinate Indenture.

(b) The Trustee may resign at any time by giving written notice to the Commission. Upon receiving such notice of resignation, the Commission shall promptly appoint a successor Trustee by an instrument in writing. If an instrument of acceptance has not been delivered to the resigning Trustee within 30 days after the giving of such notice of resignation, the resigning Trustee or any Subordinate Indenture Bondholder may petition a court of competent jurisdiction for the appointment of a successor Trustee.

(c) Prior to the occurrence and continuance of an Event of Default under the Subordinate Indenture, or after the curing or waiver of any such Event of Default, the Commission or the holders of a majority in aggregate principal amount of the Outstanding Subordinate Indenture Bonds of each Class, may remove the Trustee and shall appoint a successor Trustee. In the event there shall have occurred and be continuing an Event of Default under the Subordinate Indenture, the holders of a majority in aggregate principal amount of each Class of Outstanding Subordinate Indenture Bonds may remove the Trustee and shall appoint a successor Trustee. In each instance, such removal and appointment shall be accomplished by an instrument or concurrent instruments in writing signed by the Commission or such holders, as the case may be, and delivered to the Trustee, the Commission, the holders of the Outstanding Subordinate Indenture Bonds and the successor Trustee.

(d) If at any time: (1) the Trustee shall cease to be eligible and qualified under the Subordinate Indenture and shall fail or refuse to resign after written request to do so by the Commission or the holder of any Subordinate Indenture Bond, or (2) the Trustee shall become incapable of acting or shall be adjudged insolvent, or a receiver of the Trustee or its property shall be appointed, or any public officer shall take charge or control of the Trustee, its property or affairs for the purpose of rehabilitation, conservation or liquidation, then in either such case (i) the Commission may remove the Trustee and appoint a successor Trustee in accordance with the provisions of paragraph (c) above; or (ii) any holder of a Subordinate Indenture Bond then Outstanding may, on behalf of the holders of all Outstanding Subordinate Indenture Bonds, petition a court of competent jurisdiction for removal of the Trustee and appointment of a successor Trustee.

(e) The Commission shall give written notice of each resignation or removal of the Trustee and each appointment of a successor Trustee to each holder of Subordinate Indenture Bonds then Outstanding as listed in the Subordinate Indenture Bond Register. Each such notice shall include the name and address of the applicable corporate trust office of the successor Trustee.

Notices to Subordinate Indenture Bondholders; Waiver

Where the Subordinate Indenture provides for notice to Subordinate Indenture Bondholders of any event, such notice shall be sufficiently given (unless otherwise expressly provided in the Subordinate Indenture) if in writing and mailed, first class postage prepaid, to each Subordinate Indenture Bondholder affected by each event, at his or her address as it appears on the Subordinate Indenture Bond Register, not later than the latest date, and not earlier than the earliest date, prescribed for the first giving of such notice. In any case where notice to Subordinate Indenture Bondholders is given by mail, neither the failure to mail such notice, nor any default in any notice so mailed to any particular Subordinate Indenture Bondholder shall affect the sufficiency of such notice with respect to other Subordinate Indenture Bondholders. Where the Subordinate Indenture provides for notice in any manner, such notice may be waived in writing by the Person entitled to receive such notice, either before or after the event, and such waiver shall be the equivalent of such notice. Waivers of notice by Subordinate Indenture Bondholders shall be filed with the Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

For so long as the Subordinate Indenture Bonds are registered solely in the name of the Securities Depository or its nominee, where the Subordinate Indenture provides for notice to the Subordinate Indenture Bondholders of the existence of, or during the continuance of, any Event of Default, the Trustee, at the expense of the Commission, shall: (a) establish a record date (the "Record Date") for determination of the Persons entitled to receive such notice; (b) request a securities position listing from the Securities Depository showing the Depository Participants holding positions in the Subordinate Indenture Bonds affected by such notice as of the Record Date for such notice; (c) mail, first class postage prepaid, copies of the notice as provided above to each Depository Participant identified in the securities position listing as holding a position in the Subordinate Indenture Bonds as of the Record Date for the notice, to each nationally recognized municipal securities information repository (within the meaning of Rule 15c2- 12 of the United States Securities and Exchange Commission under the Securities Exchange Act of 1934), and to any Person identified to the Trustee as a nonobjecting beneficial owner pursuant to the immediately following clause; (d) request that the Depository Participant retransmit the notice to all Persons for which it served as nominee on the Record Date, including nonobjecting beneficial owners, or retransmit the notice to objecting beneficial owners and provide a listing of nonobjecting beneficial owners for whom the Depository Participant served as nominee on the Record Date to the Trustee, (e) provide on behalf of the Commission and not as its agent, an undertaking to pay to any Depository Participant or other nominee (other than the Securities Depository) the reasonable costs of transmitting the notice to Persons for whom the Depository Participant acts as nominee; and (f) provide as many copies of the notice as may be requested by any nominee owner of the Subordinate Indenture Bonds. Any default in performance of the duties required by this paragraph shall not affect the sufficiency of notice to the Subordinate Indenture Bondholders given in accordance with the first paragraph above, nor the validity of any action taken under the Subordinate Indenture in reliance on such notice to Subordinate Indenture Bondholders.

Supplemental Indentures without Subordinate Indenture Bondholders' Consent

The Commission and the Trustee may from time to time and at any time enter into Supplemental Indentures, without the consent of or notice to any Subordinate Indenture Bondholder, to effect any one or more of the following:

(a) cure any ambiguity, defect or omission or correct or supplement any provision in the Subordinate Indenture or in any Supplemental Indenture;

(b) provide for earlier or larger deposits to the Revenue Bonds Account or Special Revenue Bonds Account of the Debt Service Fund;

(c) grant to or confer upon the Trustee for the benefit: of the Subordinate Indenture Bondholders any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the Subordinate Indenture Bondholders or the Trustee which are not contrary to or inconsistent with the Subordinate Indenture as then in effect or to subject to the pledge and lien of the Subordinate Indenture additional revenues, properties or collateral including Defeasance Obligations;

(d) add to the covenants and agreements of the Commission in the Subordinate Indenture other covenants and agreements thereafter to be observed by the Commission or to surrender any right or power reserved in the Subordinate Indenture to or conferred upon the Commission which are not contrary to or inconsistent with the Subordinate Indenture as then in effect;

(e) by action taken on or before the issuance by the Commission of the first Series or any Sub-Series of Special Revenue Bonds, modify, alter, supplement or amend the section "Covenants as to Act 44 - Special Revenue Bonds";

(f) permit the appointment of a co-trustee under the Subordinate Indenture;

(g) modify, alter, supplement or amend the Subordinate Indenture in such manner as shall permit the qualification of the Subordinate Indenture, if required, under the Trust Indenture Act of 1939, the Securities Act of 1933, state securities laws or any similar statute;

(h) cure formal defects or omissions that, if not cured, would cause interest on Subordinate Indenture Bonds to be includible in gross income for federal income tax purposes;

(i) make any other change in the Subordinate Indenture that is determined by the Trustee not to be materially adverse to the interests of the Subordinate Indenture Bondholders;

(j) identify particular characteristics of Subordinate Indenture Bonds for purposes not inconsistent with the Subordinate Indenture including, without limitation, credit or liquidity support, remarketing, serialization, mandatory tender for purchase and defeasance;

(k) implement the issuance of Additional Subordinate Indenture Bonds, or the incurrence of other Parity Obligations or of Subordinated Indebtedness permitted under the Subordinate Indenture; or

(l) if all Subordinate Indenture Bonds in a Series are Book Entry Bonds, amend, modify, alter or replace any Letter of Representations as provided in the Subordinate Indenture or other provisions relating to Book Entry Bonds.

The Trustee shall not be obligated to enter into any such Supplemental Indenture which adversely affects the Trustee's own rights, duties or immunities under the Subordinate Indenture.

Supplemental Indentures Requiring Subordinate Indenture Bondholders' Consent

The Commission and the Trustee, at any time and from time to time, may execute and deliver a Supplemental Indenture for the purpose of making any modification or amendment to the Subordinate Indenture, but only with the written consent of the holders of at least a majority in aggregate principal amount of the Revenue Bonds Outstanding at the time such consent is given, and in case such modification adversely affects the holders of the Special Revenue Bonds, of PennDOT; provided, however, that if such modification or amendment will, by its terms, not take effect so long as any Subordinate Indenture Bonds so affected remain Outstanding, the consent of the holders of such Subordinate Indenture Bonds shall not be required and such Subordinate Indenture Bonds shall not be deemed to be Outstanding for the purpose of any calculation of Outstanding Subordinate Indenture Bonds under this Section. Notwithstanding the foregoing, no modification or amendment contained in any such Supplemental Indenture shall permit any of the following, without the consent of each Subordinate Indenture Bondholder whose rights are affected thereby:

(a) a change in the terms of stated maturity or redemption of any Subordinate Indenture Bond or of any installment of interest thereon;

(b) a reduction in the principal amount of or redemption premium on any Subordinate Indenture Bond or in the rate of interest thereon or a change in the coin or currency in which such Subordinate Indenture Bond is payable;

(c) the creation of a lien on or a pledge of any part of the Trust Estate which has priority over or parity with (to the extent not permitted under the Subordinate Indenture) the lien or pledge granted to the Subordinate Indenture Bondholders under the Subordinate Indenture (but this provision shall not apply to the release of any part of the Trust Estate as opposed to the creation of a prior or parity lien or pledge);

(d) the granting of a preference or priority of any Subordinate Indenture Bond or Subordinate Indenture Bonds over any other Subordinate Indenture Bond or Subordinate Indenture Bonds, except to the extent permitted under the Subordinate Indenture;

(e) a reduction in the aggregate principal amount of Subordinate Indenture Bonds of which the consent of the Subordinate Indenture Bondholders is required to effect any such modification or amendment; or

(f) a change in the provisions of this "Supplemental Indentures Requiring Subordinate Indenture Bondholders' Consent" section.

Notwithstanding the foregoing, the holder of any Subordinate Indenture Bond may extend the time for payment of the principal of or interest on such Subordinate Indenture Bond; provided, however, that upon the occurrence of an Event of Default, funds available under the Subordinate Indenture for the payment of the principal of and interest on the Subordinate Indenture Bonds shall not be applied to any payment so extended until all principal and interest payments which have not been extended have first been paid in full. Notice of any Supplemental Indenture executed pursuant to this Section shall be given to the Subordinate Indenture Bondholders promptly following the execution thereof.

Discharge

If (a) the principal of any Subordinate Indenture Bonds and the interest due or to become due thereon, together with any redemption premium required by redemption of any of the Subordinate Indenture Bonds prior to maturity, shall be paid, or is caused to be paid, or is provided for under the Subordinate Indenture, at the times and in the manner to which reference is made in the Subordinate Indenture Bonds, according to the true intent and meaning thereof, or the outstanding Subordinate Indenture Bonds shall have been paid and discharged in accordance with the Subordinate Indenture, and (b) all of the covenants, agreements, obligations, terms and conditions of the Commission under the Subordinate Indenture shall have been kept, performed and observed and there shall have been paid to the Trustee, the Subordinate Indenture Bond Registrar and the Paying Agents all sums of money due or to become due to them in accordance with the terms and provisions of the Subordinate Indenture, then the right, title and interest of the Trustee in the Trust Estate shall thereupon cease and the Trustee, on request of the Commission and at the expense of the Commission, shall release the Subordinate Indenture and the Trust Estate and shall execute such documents to evidence such release as may be reasonably required by the Commission and shall turn over to the Commission, or to such other Person as may be entitled to receive the same, all balances remaining in any Funds under the Subordinate Indenture except for amounts required to pay such Subordinate Indenture Bonds or held as described under "Rebate Fund."

Defeasance; Deposit of Funds for Payment of Subordinate Indenture Bonds

If the Commission deposits with the Trustee moneys or Defeasance Obligations which, together with the earnings thereon, are sufficient to pay the principal amount of and redemption premium on any particular Subordinate Indenture Bond or Subordinate Indenture. Bonds becoming due, either at maturity, by means of mandatory sinking fund redemption or by call for optional redemption or otherwise, together with all interest accruing thereon to the due date or Redemption Date, and pays or makes provision for payment of all fees, costs and expenses of the Commission and the Trustee due or to become due with respect to such Subordinate Indenture Bonds, all liability of the Commission with respect to such Subordinate Indenture Bond or Subordinate Indenture Bonds shall cease, such Subordinate Indenture Bond or Subordinate Indenture Bonds shall be deemed not to be Outstanding under the Subordinate Indenture and the holder or holders of such Subordinate Indenture Bond or Subordinate Indenture Bonds shall be restricted exclusively to the moneys or Defeasance Obligations so deposited, together with any earnings thereon, for any claim of whatsoever nature with respect to such Subordinate Indenture Bond or Subordinate Indenture Bonds, and the Trustee shall hold such moneys, Defeasance Obligations and earnings in trust for such holder or holders. In determining the sufficiency of the moneys and Defeasance Obligations deposited pursuant to this Section, the Trustee shall receive, at the expense of the Commission, and may rely upon: (a) a verification report of a firm of nationally recognized independent certified public accountants or other qualified firm acceptable to the Commission and the Trustee; provided, however, that the Trustee may waive the requirement for the provision of such verification report if the Subordinate Indenture Bonds which are being defeased will be paid and cancelled within 90 days and the Trustee can calculate the interest to be paid on such Subordinate Indenture Bonds to and including such payment or redemption date; and (b) an opinion of Bond Counsel to the effect that (1) all conditions set forth in the Subordinate Indenture have been satisfied and (2) that defeasance of any Subordinate Indenture Bonds will not cause interest on the Subordinate Indenture Bonds to be includable in gross income for federal income tax purposes. Upon such defeasance, all rights of the Commission, including its right to provide for optional redemption or prepayment of any Subordinate Indenture Bonds on dates other than planned pursuant to such defeasance shall cease unless specifically retained by filing a written notification thereof with the Trustee at the time the Defeasance Obligations are deposited with the Trustee.

At such times as any Subordinate Indenture Bonds shall be deemed to be paid under the Subordinate Indenture, as aforesaid, it shall no longer be secured by or entitled to the benefits of the Subordinate Indenture, except for the purposes of any such payment from such money or Defeasance Obligations.

Notice of Defeasance

(a) In case any of the Subordinate Indenture Bonds, for the payment of which moneys or Defeasance Obligations have been deposited with the Trustee pursuant to the Subordinate Indenture, are to be redeemed on any date prior to their maturity, the Commission shall give to the Trustee in form satisfactory to it irrevocable instructions to give notice of redemption of such Subordinate Indenture Bonds on the redemption date for such Subordinate Indenture Bonds.

(b) In addition to the foregoing notice, in the event such Subordinate Indenture Bonds to be redeemed are not by their terms subject to redemption within the next succeeding 60 days, the Trustee shall give further notice to the Subordinate Indenture Bondholders that the deposit required by the Subordinate Indenture has been made with the Trustee and that said Subordinate Indenture Bonds are deemed to have been paid in accordance the Subordinate Indenture and stating the maturity or redemption date or dates upon which moneys are to be available for the payment of the principal of and redemption premium, if any, on said Subordinate Indenture Bonds; such further notice shall be given promptly following the making of the deposit required by the Subordinate Indenture; and such further notice also shall be given in the manner set forth in the Subordinate Indenture; but no defect in said further notice nor any failure to give all or any portion of such further notice shall in any manner defeat the effectiveness of the deposit.

(c) If the Commission has retained any rights pursuant to the Subordinate Indenture, notice thereof shall be sent to Subordinate Indenture Bondholders of such Subordinate Indenture Bonds as soon as practicable and not later than any notice required by paragraphs (a) or (b) above.

Limitation of Liability of Officials of the Commission

No covenant, stipulation, obligation or agreement contained in the Subordinate Indenture shall be deemed to be a covenant, stipulation, obligation or agreement of any present or future member, agent or employee of the Commission in his individual capacity, and neither the members of the Commission nor any official executing the Subordinate Indenture Bonds shall be liable personally on the Subordinate Indenture Bonds or be subject to any personal liability or accountability by reason of the issuance thereof. Notwithstanding anything to the contrary contained herein, the Trustee, the Subordinate Indenture Bondholders and any other party entitled to seek payment from the Commission under or to enforce the Subordinate Indenture and the Subordinate Indenture Bonds will be entitled to look solely to the Trust Estate, and such collateral, if any, as may now or hereafter be given to secure the payment of the obligations of the Commission under the Subordinate Indenture and the Subordinate Indenture Bonds, and no other property or assets of the Commission or any officer or director of the Commission shall be subject to levy, execution or other enforcement procedure for the satisfaction of the remedies hereunder, or for any payment required to be made under the Subordinate Indenture and the Subordinate Indenture Bonds, or for the performance of any of the covenants or warranties contained herein.

[End of Exhibit C]

[THIS PAGE INTENTIONALLY LEFT BLANK]

APPENDIX D

FORM OF OPINION OF BOND COUNSEL

[THIS PAGE INTENTIONALLY LEFT BLANK]

[*The proposed form of the legal opinion of Bond counsel, is set forth below. The actual opinion will be delivered on the date of delivery of the bonds referred to therein and may vary from the form to reflect circumstances both factual and legal at the time of delivery.*]

June 27, 2019

Pennsylvania Turnpike Commission
Middletown, PA

RE: $722,970,000 Pennsylvania Turnpike Commission Turnpike Subordinate Revenue Bonds, Series A of 2019

Ladies and Gentlemen:

We have served as bond counsel to the Pennsylvania Turnpike Commission (the "Commission") in connection with its issuance and sale of the Pennsylvania Turnpike Commission Turnpike Subordinate Revenue Bonds, Series A of 2019, issued in the aggregate principal amount of $722,970,000 (the "2019 Subordinate Bonds"). The 2019 Subordinate Bonds are being issued pursuant to the Enabling Acts, a resolution adopted by the Commission on June 18, 2019 (the "Resolution") and the Subordinate Trust Indenture dated as of April 1, 2008, as heretofore amended and supplemented (collectively, the "Original Indenture"), and as further amended and supplemented by Supplemental Trust Indenture No. 30 dated as of June 1, 2019 ("Supplemental Indenture No. 30", and, together with the Original Indenture, the "Subordinate Indenture"), between the Commission and Wells Fargo Bank, N.A., as successor trustee (the "Trustee"). Capitalized terms used herein and not otherwise defined shall have the meanings ascribed to such terms in the Subordinate Indenture.

We have examined (i) an executed counterpart of Supplemental Indenture No. 30, (ii) a copy, certified or otherwise identified to our satisfaction, of the Original Indenture, (iii) the form of the 2019 Subordinate Bonds, (iv) copies, certified or otherwise identified to our satisfaction, of the Resolution and the Enabling Acts, (v) an executed counterpart of the Tax Compliance Certificate dated as of the date hereof (the "Tax Compliance Certificate"), on which we have relied, *(*vi) the opinion of Doreen A. McCall, Esquire, Chief Counsel to the Commission, on which we have relied, and (vii) such constitutional and statutory provisions and such other resolutions, certificates, instruments and documents as we have deemed necessary or appropriate in order to enable us to render an informed opinion as to matters set forth herein.

In rendering the opinions set forth below, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals and the conformity to the original documents of all documents submitted to us as copies. As to any facts material to such opinions, we have, when relevant facts were not independently established, relied upon the aforesaid instruments, certificates, and documents and the representations and warranties made therein without undertaking to verify the same by independent investigation. We have also assumed (except with respect to the Commission) that the documents referred to herein have been duly authorized by all parties thereto and are, where appropriate, legally binding obligations of, and enforceable in accordance with their terms against all parties, and that the actions required to be taken and consent required to be obtained by such parties, have or will be taken or obtained. We do not render any opinion with respect to the adequacy of security for the 2019 Subordinate Bonds or the sources of payment in respect of the 2019 Subordinate Bonds.

Based upon the foregoing, under existing law, as enacted and construed on the date hereof, it is our opinion subject to the qualifications and limitations set forth herein, that:

1. The Commission is a validly existing instrumentality of the Commonwealth of Pennsylvania and has the power to enter into the transactions contemplated by Supplemental Indenture No. 30 and to carry out its obligations thereunder.

2. Supplemental Indenture No. 30 has been duly authorized, executed and delivered by the Commission and constitutes the valid and binding obligation of the Commission enforceable against it in accordance with its terms.

3. The 2019 Subordinate Bonds have been duly and validly authorized and issued by the Commission and constitute the valid and binding limited obligations of the Commission, enforceable against the Commission in accordance with their terms, payable from the sources provided therefor in the Subordinate Indenture.

4. Under the laws of the Commonwealth of Pennsylvania, the 2019 Subordinate Bonds and the income thereon are exempt from personal property taxes in the Commonwealth, and interest on the 2019 Subordinate Bonds is exempt from Commonwealth personal income and corporate net income tax.

5. Interest on the 2019 Subordinate Bonds (a) is excluded from the gross income of the holders of the 2019 Subordinate Bonds for purposes of federal income taxation and (b) is not an item of tax preference within the meaning of Section 57 of the Internal Revenue Code of 1986, as amended (the "Code"), for purposes of the alternative minimum tax imposed by Section 55 of the Code. The opinions set forth in the preceding sentence are subject to the condition that the Commission and the Pennsylvania Department of Transportation ("PennDOT") comply with all requirements of the Code that must be satisfied subsequent to the issuance of the 2019 Subordinate Bonds in order that interest thereon be, or continue to be, excluded from gross income for federal income tax purposes. The Commission and PennDOT have covenanted to comply with all such requirements of the Code. Failure to comply with certain of such requirements may cause interest on the 2019 Subordinate Bonds to become included in gross income for federal income tax purposes retroactively to the date of issuance of the 2019 Subordinate Bonds.

Purchasers of the 2019 Subordinate Bonds should consult their own tax advisers as to collateral federal income tax consequences. We express no opinion regarding federal or state tax consequences arising with respect to the 2019 Subordinate Bonds other than as expressly set forth in paragraphs numbered 4 and 5 hereof.

In rendering this opinion, we have assumed compliance by the Commission with the covenants contained in the 2019 Subordinate Bonds, the representations contained in the Original Indenture and Supplemental Indenture No. 30 and the representations of the Commission and PennDOT provided in the Tax Compliance Certificate that are intended to comply with the provisions of the Code relating to actions to be taken by the Commission and PennDOT in respect of the 2019 Subordinate Bonds after the issuance thereof to the extent necessary to effect or maintain the federal tax-exempt status of the interest on the 2019 Subordinate Bonds. These covenants and representations relate to, inter alia, the use of proceeds of the 2019 Subordinate Bonds and the rebating to the United States Treasury of specified arbitrage earnings, if required.

The opinions set forth above as to the enforceability of the 2019 Subordinate Bonds and Supplemental Indenture No. 30 are subject to applicable bankruptcy, reorganization, moratorium, insolvency or other laws affecting creditors' rights or remedies generally (including, without limitation, laws relating to fraudulent conveyances or transfers) and are subject to general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law).

We call to your attention that the 2019 Subordinate Bonds are not in any way a debt or liability of the Commonwealth of Pennsylvania or any instrumentality, agency or political subdivision thereof other than the Commission, nor do the 2019 Subordinate Bonds or the Subordinate Indenture pledge the general credit or taxing power of the Commonwealth of Pennsylvania or any instrumentality, agency or political subdivision thereof. The Commission has no taxing power.

These opinions are rendered on the basis of federal law and the laws of the Commonwealth of Pennsylvania as enacted and construed on the date hereof. We express no opinion as to any matter not set forth in the numbered paragraphs above, including, without limitation, any potential outcome of the lawsuit brought against the Commission and others, Owner Operator Independent Drivers Association, Inc., et al. v. Pennsylvania Turnpike Commission, et al. (MD PA 2019), 2019 U.S. Dist. Lexis 58255; 2019 WL 1493182 (the "Independent Drivers' Litigation") described in the Official Statement prepared in respect of the 2019 Subordinate Bonds. In particular, we assume no responsibility for, and express no opinion herein with respect to, the accuracy, adequacy or completeness of the Preliminary Official Statement or the Official Statement prepared in respect of the 2019 Subordinate Bonds, including the appendices thereto, and we make no representation that we have independently verified any such information.

The opinions set forth herein are given solely for your benefit and may not be relied on by any other person or entity without our express prior written consent. The opinions set forth herein are given solely as of the date hereof, and we do not undertake to update or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention, including, but not limited to, any developments in the Independent Drivers' Litigation, or any changes in law that may hereafter occur including, but not limited to, those that may affect the tax status of interest on the 2019 Subordinate Bonds.

Very truly yours,

APPENDIX E

SUMMARY OF CERTAIN PROVISIONS OF AND DEFINED TERMS IN THE SENIOR INDENTURE

[THIS PAGE INTENTIONALLY LEFT BLANK]

APPENDIX E

SUMMARY OF CERTAIN PROVISIONS OF AND DEFINED TERMS IN THE SENIOR INDENTURE

The following sets forth the definitions derived from the Senior Indenture concerning the Senior Revenue Bonds and the operation of the Senior Indenture. This summary of such terms does not purport to be complete or definitive and is subject to all of the terms and provisions of the Senior Indenture, a copy of which will be available at the corporate trust office of U.S. Bank National Association, as the trustee under the Senior Indenture (the "Senior Trustee"). Any references to "principal amount" shall mean the principal amount of any Senior Revenue Bonds plus the accreted amount on any Senior Revenue Bond which constitutes a capital appreciation or similar bond.

DEFINITIONS OF CERTAIN TERMS

In addition to words and terms elsewhere defined in this Official Statement, the following words and terms used in this Official Statement and this Appendix E and the Senior Indenture shall have the following meanings unless the context clearly indicates otherwise:

"Additional Senior Revenue Bonds" shall mean the Senior Revenue Bonds of any series authorized to be issued under the Senior Indenture.

"Annual Debt Service" shall mean (i) the amount of principal and interest paid or payable with respect to Senior Revenue Bonds in a Fiscal Year plus (ii) Senior Indenture Reimbursement Obligations paid or payable by the Commission in such Fiscal Year (but only to the extent they are not duplicative of such principal and interest), plus (iii) the amounts, if any, paid or payable by the Commission in such Fiscal Year with respect to Senior Indenture Approved Swap Agreements, minus (iv) the amounts, if any, paid or payable to the Commission in such Fiscal Year with respect to Senior Indenture Approved Swap Agreements, provided that the difference between the amounts described in clauses (iii) and (iv) shall be included only to the extent that such difference would not be recognized as a result of the application of the assumptions set forth below. The following assumptions shall be used to determine the Annual Debt Service becoming due in any Fiscal Year:

(a) in determining the principal amount paid or payable with respect to Senior Revenue Bonds or Senior Indenture Reimbursement Obligations in each Fiscal Year, payment shall be assumed to be made in accordance with any amortization schedule established for such Senior Indenture Indebtedness, including amounts paid or payable pursuant to any mandatory redemption schedule for such Senior Indenture Indebtedness;

(b) if any of the Senior Indenture Indebtedness or proposed Senior Indenture Indebtedness constitutes Balloon Senior Indenture Indebtedness, then such amounts thereof as constitute Balloon Senior Indenture Indebtedness shall be treated as if such Senior Indenture Indebtedness is to be amortized in substantially equal annual installments of principal and interest over a term of 25 years from the date of issuance of such Senior Indenture Indebtedness; anything to the contrary in the Senior Indenture notwithstanding, during the year preceding the final maturity date of such Senior Indenture Indebtedness, all of the principal thereof shall be considered to be due on such maturity date unless the Commission provides to the Senior Trustee a certificate of a Financial Consultant certifying that, in its judgment, the Commission will be able to refinance such Balloon Senior Indenture Indebtedness, in which event the Balloon Senior Indenture Indebtedness shall be amortized over the term of the Senior Indenture Indebtedness expected to refinance such Balloon Senior Indenture Indebtedness and shall bear the interest rate specified in the certificate of the Financial Consultant;

(c) if any of the Senior Indenture Indebtedness or proposed Senior Indenture Indebtedness constitutes Variable Rate Senior Indenture Indebtedness, then interest in future periods shall be based on the Senior Indenture Assumed Variable Rate;

(d) termination or similar payments under a Senior Indenture Approved Swap Agreement shall not be taken into account in any calculation of Annual Debt Service; and

(e) if any cash Subsidy Payments are scheduled to be received by the Commission with respect to any Bonds which are eligible for such Subsidy Payments, each of the Subsidy Payments may be deducted from the interest payable on such Bonds in the period in which such Subsidy Payment is scheduled to be received.

"Applicable Long-Term Senior Indenture Indebtedness" includes Senior Revenue Bonds, Additional Senior Revenue Bonds, Senior Indenture Reimbursement Obligations and obligations of the Commission under Senior Indenture Approved Swap Agreements, to the extent the same constitute Long-Term Senior Indenture Indebtedness, and excludes Subordinated Senior Indenture Indebtedness.

"Balloon Senior Indenture Indebtedness" shall mean Senior Indenture Long-Term Indebtedness of which 25% or more of the principal matures in the same Fiscal Year and is not required by the documents pursuant to which such Senior Indenture Indebtedness was issued to be amortized by payment or redemption prior to that Fiscal Year, provided that such Senior Indenture Indebtedness will not constitute Balloon Senior Indenture Indebtedness if the Senior Trustee is provided a certificate of a Commission Official certifying that such Senior Indenture Indebtedness is not to be treated as Balloon Senior Indenture Indebtedness (because, by way of example, such Indebtedness is intended to serve as "wrap around" Senior Indenture Indebtedness).

"Commission Official" shall mean any commissioner, director, officer or employee of the Commission authorized to perform specific acts or duties by resolution duly adopted by the Commission.

"Consultant" means a Person who shall be independent, appointed by the Commission as needed, qualified and having a nationwide and favorable reputation for skill and experience in such work for which the Consultant was appointed. In those situations in which a Consultant is appointed to survey risks and to recommend insurance coverage, such Consultant may be a broker or agent with whom the Commission transacts business.

"Credit Facility" shall mean any letter of credit, line of credit, standby letter of credit, indemnity or surety insurance policy or agreement to purchase a debt obligation or any similar extension of credit, credit enhancement or liquidity support obtained by the Commission from a responsible financial or insurance institution, to provide for or to secure payment of principal and purchase price of, and/or interest on Senior Revenue Bonds pursuant to the provisions of a Supplemental Senior Indenture under which such Senior Revenue Bonds are issued. The use of such definition is not intended to preclude the Commission from providing the credit or liquidity support with respect to one or more series of Senior Revenue Bonds directly rather than through a financial or insurance institution.

"Current Expenses" shall mean the Commission's reasonable and necessary current expenses of maintenance, repair and operation of the System, including, without limiting the generality of the foregoing, all premiums for insurance and payments into any self-insurance reserve fund, all administrative and engineering expenses relating to maintenance, repair and operation of the System, fees and expenses of the Senior Trustee and of the Senior Indenture Paying Agents, periodic fees or charges to maintain a Senior Indenture Debt Service Reserve Fund security, legal expenses and any other expenses required to be paid by the Commission as shown in the Annual Operating Budget for the System.

"Event of Senior Indenture Bankruptcy" shall mean the filing of a petition in bankruptcy (or other commencement of a bankruptcy or similar proceedings) by or against the Commission as debtor under Title 9 of the United States Code, as amended from time to time, and any successor to or replacement of such title and any other applicable federal or state bankruptcy, insolvency or similar law.

"Financial Consultant" shall mean any financial advisor or firm of financial advisors of favorable national reputation for skill and experience in performing the duties for which a Financial Consultant is required to be employed pursuant to the provisions hereof and who is retained by the Commission as a Financial Consultant for the purposes hereof.

"Historical Debt Service Coverage Ratio" shall mean for any period of time, the ratio determined by dividing Net Revenues for such period by the Annual Debt Service for all Applicable Long-Term Indebtedness which is Outstanding during such period.

"Historical Pro Forma Debt Service Coverage Ratio" shall mean for any period of time, the ratio determined by dividing Net Revenues for such period by the Senior Indenture Maximum Annual Debt Service for all Applicable Long-Term Senior Indenture Indebtedness then outstanding and the Applicable Long-Term Senior Indenture Indebtedness proposed to be issued.

"Immediate Notice" means notice transmitted by electronic means, in writing, by telecopier or other electronic means or by telephone (promptly confirmed in writing) and received by the Person to whom it was addressed.

"Issuance Cost" shall mean costs incurred by or on behalf of the Commission in connection with the issuance of Additional Senior Revenue Bonds including, without limitation, the following: payment of financial, legal, accounting and appraisal fees and expenses, the Commission's fees and expenses attributable to the issuance of the Senior Revenue Bonds, the cost of printing, engraving and reproduction services, fees and expenses incurred in connection with any Credit Facility and any Senior Indenture Approved Swap Obligation, legal fees and expenses for Bond Counsel, Commission's counsel, Trustee's counsel, Disclosure Counsel and Underwriter's counsel relating to the issuance of the Senior Revenue Bonds, the initial or acceptance fee of the Trustee, and all other fees, charges and expenses incurred in connection with the issuance of the Senior Revenue Bonds and the preparation of the Senior Indenture.

"Long-Term Senior Indenture Indebtedness" shall mean all Senior Indenture Indebtedness, which is not (a) Short-Term Senior Indenture Indebtedness or (b) Subordinated Senior Indenture Indebtedness.

"Net Revenues" shall mean the amount by which total Revenues exceed Current Expenses for any particular period.

"Original Senior Indenture" shall mean the Indenture of Trust dated as of July 1, 1986 by and between the Commission and First Union Bank, as successor trustee to Fidelity Bank, National Association (the "Original Trustee").

"Other Revenues" shall mean any funds received or payable to the Commission, other than Revenues, which the Commission chooses to include as security for Senior Indenture Parity Obligations and/or Subordinated Senior Indenture Indebtedness pursuant to a Supplemental Senior Indenture.

"Outstanding" or "outstanding" in connection with Senior Revenue Bonds shall mean all Senior Revenue Bonds which have been authenticated and delivered under the Senior Indenture, except: (a) Senior Revenue Bonds theretofore cancelled or delivered to the Senior Trustee for cancellation under the Senior Indenture; (b) Senior Revenue Bonds which are deemed to be no longer Outstanding in accordance with the Senior Indenture; and (c) Senior Revenue Bonds in substitution for which other Senior Revenue Bonds have been authenticated and delivered pursuant to the Senior Indenture. In determining whether the owners of a requisite aggregate principal amount of Senior Revenue Bonds Outstanding have concurred in any request, demand, authorization, direction, notice, consent or waiver under the provisions of the Senior Indenture, Senior Revenue Bonds which are held by or on behalf of the Commission (unless all of the Outstanding Senior Revenue Bonds are then owned by the Commission) shall be disregarded for the purpose of any such determination.

"Person" shall mean an individual, a public body, a corporation, a partnership, an association, a joint stock company, a trust, and any unincorporated organization.

"Prior Senior Indenture" shall mean the Original Senior Indenture as supplemented and amended by a First Supplemental Indenture, dated as of August 1, 1986, a Second Supplemental Indenture, dated as of November 15, 1988, a Third Supplemental Indenture, dated as of May 15, 1989, a Fourth Supplemental Indenture, dated as of November 15, 1989, a Fifth Supplemental Indenture, dated as of May 15, 1990, a Sixth Supplemental Indenture, dated as of November 15, 1990, a Seventh Supplemental Indenture, dated as of June 1, 1991, an Eighth Supplemental Indenture, dated as of July 1, 1991, a Ninth Supplemental Indenture, dated as of November 15, 1991, a Tenth Supplemental Indenture, dated as of August 1, 1992, an Eleventh Supplemental

Indenture, dated as of June 1, 1998, and a Twelfth Supplemental Indenture, dated as of March 1, 2001.

"Projected Annual Debt Service" shall mean for any future period of time, shall equal the amount of Senior Indenture Maximum Annual Debt Service on all Applicable Long-Term Senior Indenture Indebtedness then Outstanding and on any Applicable Long-Term Senior Indenture Indebtedness proposed to be issued.

"Projected Debt Service Coverage Ratio" shall mean for the two Fiscal Years following the end of any period during which interest was fully capitalized on the Applicable Long-Term Indebtedness proposed to be issued, the ratio determined by dividing Projected Net Revenues for such period by the Projected Annual Debt Service for such period.

"Projected Net Revenues" shall mean projected Net Revenues for the period in question, taking into account any revisions of the Tolls which have been approved by the Commission and which will be effective during such period and any additional Tolls which the Commission or the Consultant, as appropriate, estimates will be received by the Commission following the completion of any Project then being constructed or proposed to be constructed.

"Rate Covenant" shall mean the requirement to establish and maintain a schedule of Tolls sufficient to provide the funds required pursuant to the Senior Indenture provisions described under "The Senior Indenture—Rate Covenant" in this Appendix E.

"Reimbursement Agreement" shall mean an agreement between the Commission and one or more Senior Indenture Banks pursuant to which, among other things, such Senior Indenture Bank or Senior Indenture Banks issue a Credit Facility with respect to Senior Revenue Bonds of one or more series and the Commission agrees to reimburse such Senior Indenture Bank or Senior Indenture Banks for any drawings made thereunder.

"Revenues" shall mean (a) all Tolls received by-or on behalf of the Commission from the System, (b) any other sources of revenues or funds of the Commission which the Commission chooses to include in the Senior Trust Estate pursuant to a Supplemental Senior Indenture, and (c) the interest and income earned on any fund or account where said interest or income is required to be credited to the Senior Indenture Revenue Fund pursuant to the Senior Indenture. As more fully provided in the Senior Indenture, in the event the Commission receives advances or prepayments or otherwise operates or participates in a system in which funds are collected prior to the actual usage of the System, such funds shall not be deemed to be Revenues until the usage occurs or the funds are earned pursuant to the agreement under which the Commission receives such funds.

"Senior Indenture" shall mean that certain Amended and Restated Trust Indenture originally dated as of July 1, 1986 and Amended and Restated as of March 1, 2001, between the Commission and the Senior Trustee, as supplemented and amended.

"Senior Indenture Approved Swap Agreement" shall mean a contract having an interest rate, currency, cash-flow, or other basis desired by the Commission, including, without limitation, interest rate swap agreements, currency swap agreements, forward payment conversion agreements, futures contracts, contracts providing for payments based on levels of or changes in interest rates, currency exchange rates, stock or other indices, or contracts to exchange cash flows or a series of payments, and contracts including, without limitation, interest rate floors or caps, options, puts or calls to hedge payment, currency rate, spread or similar exposure for which the Commission has satisfied the conditions under the Senior Indenture to have payments to be made and received by the Commission thereunder taken into account in the calculation of Annual Debt Service.

"Senior Indenture Assumed Variable Rate" shall mean in the case of (1) Outstanding Variable Rate Senior Indenture Indebtedness, the average interest rate on such Senior Indenture Indebtedness for the most recently completed 12-month period; and (2) proposed Variable Rate Senior Indenture Indebtedness, (a) which will, in the opinion of Bond Counsel delivered at the time of the issuance thereof be excluded from gross income for federal income tax purposes, the average of the Bond Market Association Swap Index ("BMA Index") for the 12 months ending 7 days preceding the date of calculation plus 100 basis points, or (b) in the case of Bonds not described in clause (a), the London Interbank Offered Rate ("LIBOR") most closely resembling the reset period for the Variable Rate Senior Indenture Indebtedness plus 100 basis points; provided that if the BMA Index or LIBOR shall cease to be published, the index to be used in its place shall be that index which the Commission in consultation with the Financial Consultant determines most closely replicates such index, as set forth in a certificate of a Commission Official filed with the Senior Trustee.

"Senior Indenture Bank" shall mean as to any particular series of Senior Revenue Bonds, each Person (other than a Senior Indenture Bond Insurer) providing a letter of credit, a line of credit, a guaranty or another credit or liquidity enhancement facility as designated in the Supplemental Senior Indenture to the Senior Indenture providing for the issuance of such Senior Revenue Bonds.

"Senior Indenture Bond Insurer" shall mean as to any particular maturity or any particular Series of Senior Revenue Bonds, the Person undertaking to insure such Bonds as designated in a Supplemental Indenture providing for the issuance of such Bonds.

"Senior Indenture Events of Default" shall mean those events described under "The Senior Indenture—Events of Default" in this Appendix E, and such other events specified in any Supplemental Senior Indenture.

"Senior Indenture Indebtedness" shall mean any obligation or debt incurred for money borrowed.

"Senior Indenture Maximum Annual Debt Service" shall mean at any point in time the maximum amount of Annual Debt Service on all Applicable Long-Term Senior Indenture Indebtedness, as required by the context (e.g., whether relating to all such Applicable Long-Term Senior Indenture Indebtedness or only specified Applicable Long-Term Senior Indenture Indebtedness) paid or payable in the then current or any future Fiscal Year.

"Senior Indenture Parity Obligations" includes Senior Revenue Bonds and other obligations of the Commission owed to Senior Indenture Secured Owners, but excludes Subordinated Senior Indenture Indebtedness.

"Senior Indenture Parity Swap Agreement" shall mean a Senior Indenture Approved Swap Agreement secured under the Senior Indenture on parity with all Senior Revenue Bonds and other Senior Indenture Parity Obligations.

"Senior Indenture Paying Agent" shall mean with respect to any Series of Senior Revenue Bonds that Person appointed pursuant to the Senior Indenture to make payments to bondholders of interest and/or principal pursuant to the terms of the Senior Indenture, which is currently the Senior Trustee.

"Senior Indenture Reimbursement Obligation" shall mean an obligation of the Commission pursuant to a Reimbursement Agreement to repay any amounts drawn under a Credit Facility and to pay interest on such drawn amounts pursuant to such Reimbursement Agreement.

"Senior Indenture Secured Owner" shall mean each Person who is a bondholder of any Senior Revenue Bonds, each counterparty providing a Senior Indenture Parity Swap Agreement, each Senior Indenture Bank providing a Credit Facility and each Bond Insurer providing a bond insurance policy with respect to a Senior Indenture Parity Obligation.

"Senior Indenture Tender Indebtedness" shall mean any Senior Indenture Indebtedness or portion thereof:

(a) The terms of which include (1) an option or an obligation on the part of the Secured Owner to tender all or a portion of such Indebtedness to the Commission, the Trustee, the Paying Agent or another fiduciary or agent for payment or purchase, and (2) a requirement on the part of the Commission to purchase or cause to be purchased such Indebtedness or portion thereof if properly presented; and

(b) Which is rated in either (1) one of the two highest long-term Rating Categories by the Rating Agency or (2) the highest short-term, note or commercial paper Rating Category by the Rating Agency.

"Senior Revenue Bond" or "Senior Revenue Bonds" shall mean any bonds outstanding under the Senior Indenture or the Prior Senior Indenture, and Senior Indenture Indebtedness of any kind or class, including bonds, notes, bond anticipation notes, commercial paper and other obligations, issued as Additional Senior Revenue Bonds under the Senior Indenture, other than Additional Senior Revenue Bonds issued as Subordinated Senior Indenture Indebtedness.

"Senior Trust Estate" shall mean all right, title and interest of the Commission in and to (i) all Revenues, (ii) all monies deposited into accounts or funds created by the Senior Indenture and held by or on behalf of the Senior Trustee (other than the Senior Indenture Rebate Fund), (iii) any insurance proceeds and other moneys required to be deposited in the Senior Indenture, (iv) all payments received by the Commission pursuant to Senior Indenture Parity Swap Agreements, and (v) all investment earnings on all moneys held in accounts and funds established by the Senior Indenture, other than the Senior Indenture Rebate Fund.

"Short-Term Senior Indenture Indebtedness" shall mean all Senior Indenture Indebtedness which matures in less than 365 days and is designated as Short-Term Indebtedness pursuant to the Senior Indenture. In the event a Senior Indenture Bank has extended a line of credit or the Commission has undertaken a commercial paper or similar program, only amounts actually borrowed under such line of credit or program and repayable in less than 365 days shall be considered Short-Term Senior Indenture Indebtedness and the full amount of such commitment or program shall not be treated as Short-Term Senior Indenture Indebtedness to the extent that such facility remains undrawn.

"Subordinated Senior Indenture Indebtedness" shall mean Senior Indenture Indebtedness which is subordinated and junior in all respects to payment of all Senior Revenue Bonds and other Senior Indenture Parity Obligations incurred pursuant to or in compliance with the Senior Indenture.

"Subsidy Payments" shall mean payments from the United States Treasury pursuant to Section 54AA or 6431 of the Code (as such Sections were added by Section 1531 of the American Recovery and Reinvestment Act of 2009 (Pub.L. 111-5) pertaining to "Build America Bonds")

"Supplemental Senior Indenture" shall mean any duly authorized Supplemental Indenture as a supplement to the Senior Indenture, entered into in accordance with the provisions of the Senior Indenture, including any Supplemental Senior Indenture pursuant to which (and only for so long as) Senior Revenue Bonds are Outstanding thereunder.

"Tolls" shall mean all rates, rents, fees, charges, fines or other income derived by the Commission from vehicular usage of the System, and all rights to receive the same.

"Trustee" shall mean the Trustee at the time in question, whether the initial Trustee or a successor.

"Variable Rate Senior Indenture Indebtedness" shall mean any Senior Indenture Indebtedness the interest rate on which fluctuates from time to time subsequent to the time of incurrence. Variable Rate Senior Indenture Indebtedness may include, without limitation, (a) "auction rate" Senior Indenture Indebtedness described in the Senior Indenture, (b) certain Senior Indenture Tender Indebtedness, (c) commercial paper Senior Indenture Indebtedness which is intended to be reissued and refinanced periodically, or (d) other forms of Senior Indenture Indebtedness on which the interest fluctuates or is subject to being set or reset from time to time.

THE SENIOR INDENTURE

Rate Covenant

The Commission has covenanted in the Senior Indenture that it will at all times establish and maintain schedules of Tolls for traffic over the System so that the Net Revenues of the System in each Fiscal Year will at all times be at least sufficient to provide funds in an amount not less than: (1) the greater of (i) 130% of the Annual Debt Service for such Fiscal Year on account of all Applicable Long-Term Senior Indenture Indebtedness then outstanding under the provisions of the Senior Indenture, or (ii) 100% of the Senior Indenture Maximum Annual Debt Service on all Applicable Long-Term Senior Indenture Indebtedness, plus (a) the amount of required transfers from the Senior Indenture Revenue Fund to the credit of the Senior Indenture Reserve Maintenance Fund pursuant to the Annual Capital Budget, and (b) an amount sufficient to restore any deficiency in the Senior Indenture Debt Service Reserve Fund within an 18 month period; plus (2) the amount of any Short-Term Senior Indenture Indebtedness outstanding under the Senior Indenture for more than 365 consecutive days. In addition, the amount of Net Revenues in excess of the sum of the amounts set forth in clauses (1) and (2) above, together with Other Revenues pledged to the payment of Subordinated Senior Indenture Indebtedness, shall be sufficient to pay the Annual Debt Service for any Subordinated Senior Indenture Indebtedness (such covenant is referred to as the "Rate Covenant").

The Commission's failure to meet the Rate Covenant shall not constitute a Senior Indenture Event of Default under the Senior Indenture if: (i) no Senior Indenture Event of Default occurred in debt service payments as a result of such failure; and (ii) the Commission promptly after determining that the Rate Covenant was not met retains a Consultant to make written recommendations as to appropriate revisions to the schedules of Tolls necessary or appropriate to meet the Rate Covenant and advises the Senior Trustee in writing of such retention. Anything in the Senior Indenture to the contrary notwithstanding, if the Commission shall comply with the recommendations of the Consultant in respect of Tolls, it will not constitute a Senior Indenture Event of Default under the provisions of the Senior Indenture if the Commission fails to meet the Rate Covenant during the succeeding Fiscal Year as long as no Senior Indenture Event of Default has occurred in debt service payments. If the Commission does not comply with the recommendations of the Consultant in respect of Tolls, the Senior Indenture Senior Trustee may, and upon the request of the holders of not less than 25% in principal amount of the Senior Revenue Bonds then outstanding and upon being indemnified to its satisfaction shall, institute and prosecute in a court of competent jurisdiction any appropriate action to compel the Commission to revise the schedules of Tolls. The Commission covenants that it will adopt and charge Tolls in compliance with any final order or decree entered in any such proceeding.

In the event that the Consultant shall fail to file with the Commission such recommendations in writing within 60 days after such retention, the Senior Trustee may designate and appoint a different Consultant to make recommendations as to an adjustment of the schedules of Tolls, which recommendations shall be reported in writing to the Commission and to the Senior Trustee within 60 days after such retention. Such written report shall for all purposes be considered to be the equivalent of and substitute for the recommendations of the Consultant retained by the Commission.

In preparing its recommendations, the Consultant may rely upon written estimates of Revenues prepared by the other Consultants of the Commission. Copies of such written estimates signed by such Consultants shall be attached to such recommendations. The Commission covenants that promptly after receipt of such recommendations and the adoption of any revised schedules of Tolls, certified copies thereof will be filed with the Senior Trustee.

Any change in classification which results in a reduced Toll or any new classification shall be reviewed by the Commission with a Consultant before implementing the same unless the same is temporary (e.g., having a duration of less than one year). In addition, in the event the Commission did not meet the Rate Covenant for the preceding Fiscal Year, any classification resulting in a reduced Toll or a new classification shall be subject to a Consultant approving the same before it is implemented. In all events, the Commission shall not make a change in classification or any new classification which would cause the Commission to fail to meet the Rate Covenant.

The Commission has agreed that Tolls will be classified in a reasonable way to cover all traffic, so that the Tolls may be uniform in application to all traffic falling within any reasonable class regardless of the status or character of any person, firm or corporation participating in the traffic; provided that the foregoing shall not be interpreted to restrict the Commission's right, in its discretion in connection with its management of the System, to establish and maintain flexible Toll schedules including, but not limited to, provisions for utilizing or otherwise taking into account, peak and nonpeak pricing, introductory pricing, weight, method of payment, frequency, carpooling, electronic and other Toll collection technologies, traffic management systems, and similar classifications. The Commission has agreed that it shall not grant free passage or reduced Tolls within a class, except in the limited manner permitted by the Senior Indenture, which includes, among others, for operational or safety reasons including, but not limited to, reasons arising out of a work stoppage, work slowdown or work action, and for use by the Army, Air Force, Navy, Coast Guard, Marine Corps or National Guard or any branch thereof in time of war or other emergency. Any reduced Toll or grant of free passage shall be reviewed by the Commission with a Consultant before implementing the same unless the same is temporary (e.g., having duration of less than one year).

In the event the Commission did not meet the Rate Covenant for the preceding Fiscal Year, any reduced Toll or free passage shall be subject to a Consultant approving the same before it is implemented unless the circumstances require immediate implementation, in which event the Commission shall obtain such approval promptly following implementation. In all events, the Commission shall not reduce Tolls or grant free passage if it would cause the Commission to fail to meet the Rate Covenant.

The Commission's covenant as to uniformity of Tolls shall not be construed as requiring that Tolls for any given class of traffic be identical in amount throughout the entire System for trips of approximately identical lengths. The Commission may fix and place in effect schedules of Tolls for any given class of traffic wherein the Tolls charged for travel on a given section of the System shall be different from the Tolls charged on another section of the System notwithstanding the fact that both of said sections may be of identical or approximately identical length.

Creation of Funds

The following funds are created under the Senior Indenture:

(a) Construction Fund;

(b) Revenue Fund;

(c) Debt Service Fund;

(d) Debt Service Reserve Fund;

(e) Reserve Maintenance Fund;

(f) General Reserve Fund; and

(g) Rebate Fund.

All Revenues are deposited into the Senior Indenture Revenue Fund and from there are transferred, in the following order of priority, to: the Senior Indenture Rebate Fund, the Operating Account held by the Commission outside of the Indenture, the Senior Indenture Debt Service Fund, the Senior Indenture Reserve Maintenance Fund, the Senior Indenture Debt Service Reserve Fund, and, provided there are moneys in the Senior Indenture Revenue Fund in excess of the amount required to be retained in the Senior Indenture Revenue Fund for future transfers to the Senior Indenture Debt Service Fund, the Senior Indenture General Reserve Fund.

Senior Indenture Debt Service Fund

There are two separate accounts in the Senior Indenture Debt Service Fund known as the "Interest Account" and the "Principal Account." The Senior Trustee and the Commission may create such additional accounts in the Senior Indenture Debt Service Fund pursuant to a Supplemental Senior Indenture as they deem necessary or appropriate.

On or before the last business day preceding each interest payment date or principal (or sinking fund redemption) payment date or such other day as set forth in a Supplemental Senior Indenture, after making the deposits to the Senior Indenture Operating Account pursuant to the Senior Indenture or identified in a certificate of a Commission Official, the Senior Trustee shall withdraw from the Senior Indenture Revenue Fund and deposit to the applicable Account in the Senior Indenture Debt Service Fund (or to a Series Credit Facility Fund in lieu of either of the foregoing) the amounts due on any Senior Indenture Parity Obligation.

The moneys in the Interest and Principal Accounts shall be held by the Senior Trustee in trust for the benefit of the Senior Revenue Bonds, to the extent the foregoing are payable from such accounts, and, to said extent and pending application, shall be subject to a lien and charge in favor of the owners of Senior Revenue Bonds until paid out or transferred as provided in the Senior Indenture. There shall be withdrawn from the Interest Account (and any available capitalized interest) and the Principal Account from time to time and set aside or deposited with the Senior Trustee sufficient money for paying the interest on and the principal of and premium on the Senior Revenue Bonds as the same shall become due, except to the extent such interest, principal or other amounts are payable from a fund or account other than the Senior Indenture Debt Service Fund as provided in any Supplemental Senior Indenture.

If at the time the Senior Trustee is required to make a withdrawal from the Senior Indenture Debt Service Fund the moneys therein shall not be sufficient for such purpose, the Senior Trustee shall withdraw the amount of such deficiency from the moneys on deposit in the following funds or accounts and transfer the same to the Senior Indenture Debt Service Fund in the following order: the Senior Indenture Debt Service Reserve Fund, the Senior Indenture General Reserve Fund, and the Senior Indenture Reserve Maintenance Fund.

With respect to any Bonds for which Subsidy Payments are scheduled to be received by the Commission, the Commission shall deposit or cause to be deposited all such Subsidy Payments, as and when received, into a separate account of the Debt Service Fund held for each such Series of Bonds, and such Subsidy Payments shall be applied to pay debt service on the corresponding Series of Bonds with respect to which such Subsidy Payments are received.

Senior Indenture Debt Service Reserve Fund

The Senior Indenture establishes a Senior Indenture Debt Service Reserve Fund and provides that a special account within the Senior Indenture Debt Service Reserve Fund may be created with respect to each series of Senior Indenture Debt Service Reserve Fund Bonds issued under the Senior Indenture and any Supplemental Senior Indenture.

In each Fiscal Year, after first having made the deposits to the Senior Indenture Operating Account, Senior Indenture Debt Service Fund and Senior Indenture Reserve Maintenance Fund described above, the Trustee shall transfer from the Senior Indenture Revenue Fund on or before the last day of each month to the credit of the Senior Indenture Debt Service Reserve Fund (a) the amount, if any, required to make the amount on deposit in the Senior Indenture Debt Service Reserve Fund equal to the Senior Indenture Debt Service Reserve Requirement which restoration, as implied by the Rate Covenant, is intended to occur within eighteen (18) months; and (b) the amount set forth in a Supplemental Senior Indenture if an amount different from the Senior Indenture Debt Service Reserve Requirement is required.

To the extent accounts are created in the Senior Indenture Debt Service Reserve Fund for Senior Indenture Debt Service Reserve Fund Bonds, the funds and DSRF Security, as hereinafter defined, held therein shall be available to make payments required under the Senior Indenture for the benefit of all Senior Indenture Debt Service Reserve Fund Bonds.

Moneys held in the Senior Indenture Debt Service Reserve Fund shall be used for the purpose of paying interest on, maturing principal and mandatory sinking fund redemption price of Senior Indenture Debt Service Reserve Fund Bonds whenever and to the extent that the moneys held for the credit of the Senior Indenture Debt Service Fund shall be insufficient for such purpose. If at any time the moneys and the principal amount of any DSRF Security held in the Senior Indenture Debt Service Reserve Fund shall exceed the Senior Indenture Debt Service Reserve Requirement, the Commission shall direct whether such excess moneys shall be transferred by the Trustee to the credit of the Senior Indenture General Reserve Fund or used to reduce the principal amount of any DSRF Security.

In the event the Trustee shall be required to withdraw funds from the Senior Indenture Debt Service Reserve Fund to restore a deficiency in the Senior Indenture Debt Service Fund arising with respect to Senior Indenture Debt Service Reserve Fund Bonds, the amount of such deficiency shall be allocated pro rata among such Bonds.

In lieu of the deposit of moneys into the Senior Indenture Debt Service Reserve Fund, the Commission may cause to be provided a surety bond, an insurance policy, a letter of credit or similar financial instrument satisfactory to the Rating Agency (as evidenced by a letter from the Rating Agency confirming that the DSRF Security will not result in the rating on any outstanding Bonds being downgraded) (each, a "DSRF Security") payable to the Trustee for the benefit of the Bondholders in an amount equal to the difference between the Senior Indenture Debt Service Reserve Requirement and the amounts then on deposit in the Senior Indenture Debt Service Reserve Fund. The DSRF Security shall be payable (upon the giving of notice as required thereunder) on any Interest Payment Date on which moneys will be required to be withdrawn from the Senior Indenture Debt Service Reserve Fund and applied to the payment of the principal of or interest on any Senior Revenue Bonds to the extent that such withdrawals cannot be made by amounts on deposit in the Senior Indenture Debt Service Reserve Fund.

If a disbursement is made pursuant to a DSRF Security, the Commission shall be obligated either (a) to reinstate the maximum limits of such DSRF Security or (b) to deposit into the Senior Indenture Debt Service Reserve Fund, funds in the amount of the disbursement made under such DSRF Security, or a combination of such alternatives, as shall provide that the amount credited to the Senior Indenture Debt Service Reserve Fund equals the Senior Indenture Debt Service Reserve Requirement within a time period of eighteen (18) months.

If the DSRF Security shall cease to have a rating described in the second preceding paragraph, the Commission shall use reasonable efforts to replace such DSRF Security with one having the required rating, but shall not be obligated to pay, or commit to pay, increased fees, expenses or interest in connection with such replacement or to deposit Revenues in the Senior Indenture Debt Service Reserve Fund in lieu of replacing such DSRF Security with another.

Additional Security; Parity With Other Parity Obligations

Except as otherwise provided or permitted in the Senior Indenture, the Senior Trust Estate securing all Bonds issued under the terms of the Senior Indenture shall be shared on a parity with other Senior Indenture Parity Obligations on an equal and ratable basis. The Commission may, however, in its discretion, provide additional security or credit enhancement for specified Senior Indenture Parity Obligations with no obligation to provide such additional security or credit enhancement to other Senior Indenture Parity Obligations, except that no additional security or credit enhancement shall be provided unless there shall have been first delivered to the Senior Trustee an opinion of Bond Counsel that the exclusion from gross income of interest on any Senior Revenue Bonds for federal income tax purposes will not be adversely affected thereby. Moreover, the Commission may provide in a Supplemental Senior Indenture that bonds issued thereunder are not secured, or are secured only in part or only under certain circumstances, by the Trust Estate.

Additional Long-Term Senior Indenture Indebtedness

The Commission agrees that it will not issue any Additional Senior Revenue Bonds constituting Long-Term Senior Indenture Indebtedness unless prior to or contemporaneously with the incurrence thereof, certain provisions of the Senior Indenture are met and there is delivered to the Senior Trustee: (1) a certificate of a Commission Official certifying that the Historical Pro Forma Debt Service Coverage Ratio for the most recent Fiscal Year preceding the delivery of such certificate for which audited financial statements are available was not less than 1.75; or (2) a report of a Consultant to the effect that (i) the Net Revenues of the Commission during the preceding Fiscal Year were at least 130% of the Senior Indenture Maximum Annual Debt Service on all Applicable Long-Term Senior Indenture Indebtedness then Outstanding and on any Applicable Long-Term Senior Indenture Indebtedness proposed to be issued (which report may assume any revisions of the Tolls which have been approved by the Commission subsequent to the beginning of such Fiscal Year were in effect for the entire Fiscal Year), and (ii) the Projected Debt Service Coverage Ratio is not less than 1.30; or (3) if the Long-Term Senior Indenture Indebtedness is being incurred solely for the purposes of refunding, repurchasing or refinancing (whether in advance or otherwise) any outstanding Long-Term Senior Indenture Indebtedness, a certificate of a Commission Official certifying the Senior Indenture Maximum Annual Debt Service on all Applicable Long-Term Senior Indenture Indebtedness prior to the issuance of the proposed Long-Term Senior Indenture Indebtedness is greater than the Senior Indenture Maximum Annual Debt Service on all Applicable Long-Term Senior Indenture Indebtedness after the issuance of such proposed Long-Term Senior Indenture Indebtedness.

Other Additional Senior Indenture Parity Obligations

In addition to additional Long-Term Senior Indenture Indebtedness described above, the Commission is also permitted to incur additional Short-Term Senior Indenture Indebtedness and Senior Indenture Parity Swap Agreements under certain conditions set forth in the Senior Indenture.

Events of Default

Each of the following is a "Senior Indenture Event of Default" under the Senior Indenture:

(a) Default in the payment of any installment of principal, redemption premium, if any, interest or other amount due on any Senior Revenue Bond when the same becomes due and payable;

(b) Default in the payment by the Commission of any other Senior Indenture Parity Obligation;

(c) Subject to the provisions relating to notice and opportunity to cure certain defaults, default in the performance or breach of any covenant, warranty or representation of the Commission contained in the Senior Indenture (other than a default under (a) and (b) above);

(d) The occurrence of any Event of Default under any Supplemental Senior Indenture; or

(e) (1) The occurrence of an Event of Senior Indenture Bankruptcy of the Commission; (2) the appointment of a receiver, liquidator, assignee, custodian, trustee, sequestrator or other similar official of the Commission or of any substantial portion of its property, which appointment shall not have been rescinded or stayed within ninety (90) days after taking effect; or (3) the ordering of the winding up or liquidation of the affairs of the Commission.

No default under paragraph (c) above under "Events of Default" shall constitute a Senior Indenture Event of Default until written notice of such default shall have been given to the Commission by the Senior Trustee or by the holders of at least 25% in aggregate principal amount of the Senior Revenue Bonds Outstanding, and the Commission shall have had thirty (30) days after receipt of such notice to correct such default or cause such default to be corrected, and shall have failed to do so. In the event, however, that the default is such that it cannot be corrected within such thirty (30) day period, it shall not constitute a Senior Indenture Event of Default if corrective action is instituted by the Commission within such period and diligently pursued (as determined by the Trustee) until the default is corrected.

Remedies Upon Default

If an Event of Default occurs and is continuing, the Senior Trustee may, and upon the written request to the Senior Trustee by the holder or holders of not less than a majority in aggregate principal amount of the Senior Revenue Bonds then Outstanding shall, subject to the requirement that the Senior Trustee be provided with indemnity satisfactory to it, by written notice to the Commission, declare the principal and interest on of the Senior Revenue Bonds to the date of acceleration to be immediately due and payable.

At any time after such a declaration of acceleration has been made and before the entry of a judgment or decree for payment of the money due, the Senior Trustee may, or the holders of not less than a majority in aggregate principal amount of the Senior Revenue Bonds then Outstanding, may by written notice to the Commission and the Senior Trustee, and subject to the provision to the Senior Trustee of satisfactory indemnity, direct the Senior Trustee to rescind and annul such declaration and its consequences if: (1) there has been paid to or deposited with the Senior Trustee by or for the account of the Commission, or provision satisfactory to the Senior Trustee has been made for the payment of a sum sufficient to pay: (i) all overdue installments of interest on the Senior Revenue Bonds; (ii) the principal of and redemption premium, if any, on any Senior Revenue Bonds which have become due other than by such declaration of acceleration and interest thereon; (iii) all amounts due on other Senior Indenture Parity Obligations; (iv) to the extent lawful, interest upon overdue installments of interest and redemption premium, if any; and (v) all sums paid or advanced by the Senior Trustee under the Senior Indenture, together with the reasonable compensation, expenses, disbursements and advances of the Senior Trustee, its agents and counsel prior to the date of notice of rescission; and (2) all Events of Default, other than those described in paragraphs (a) and (b) above under "Events of Default", if any, which have occasioned such acceleration, have been cured or waived.

No such rescission and annulment shall affect any subsequent default or impair any consequent right.

Priority of Payment Following Event of Default

Any portion of the Senior Trust Estate held or received by the Senior Trustee, by any receiver or by any Senior Revenue Bond Owner pursuant to any right given or action taken under the provisions of the Senior Indenture, after payment of the costs and expenses of the proceedings resulting in the collection of such moneys and of the fees, expenses and liabilities incurred by the Senior Trustee and the transfer to Senior Indenture Secured Owners (other than Owners of the Senior Revenue Bonds) of amounts to which they are entitled by virtue of their parity position, shall be deposited and applied as follows:

(a) If the principal of all the Senior Revenue Bonds then Outstanding and the interest accrued thereon has been declared to be due and payable immediately pursuant to the acceleration provisions described above (or, but for any legal prohibition on such declaration of acceleration, such principal and interest would have been declared to be due and payable immediately pursuant to such Section or the provisions of any applicable Senior Indenture Reimbursement Agreement) and such declaration has not been rescinded and annulled, there shall be deposited into the Senior Indenture Debt Service Fund moneys sufficient to pay the amounts described in clauses (i), (ii) and (iii) below, and all such moneys shall be applied, as promptly as practicable (but subject to the provisions of the last paragraph of this Section), proportionately to: (i) the payment to the persons entitled thereto of all payments of interest then due on the Senior Revenue Bonds with interest on overdue installments, if lawful, at their respective rates from the respective dates upon which they became due, in the order of maturity of the installments of such interest and, if the amount available shall not be sufficient to pay in full any particular installment of interest, then to the payment ratably, according to the amounts due on such installment; (ii) the payment to the persons entitled thereto of the unpaid principal of any of the Senior Revenue Bonds which shall have become due (or which but for any legal prohibition on such declaration of acceleration would have become due) with interest on such Bonds at their respective rates from the respective dates upon which they became due and, if the amount available shall not be sufficient to pay in full the Senior Revenue Bonds due on any particular date, together with such interest, then to the payment ratably, according to the amount of principal and interest due on such date, in each case to the persons entitled thereto, without any discrimination or privilege; and (iii) the payment of any other amounts then owing under the Senior Indenture; and, after said deposit into the Senior Indenture Debt Service Fund, there shall be paid the Subordinated Senior Indenture Indebtedness issued or incurred by the Commission pursuant to the Senior Indenture.

(b) If the principal of and interest on all Senior Revenue Bonds then Outstanding and has not been declared to be due and payable immediately pursuant to the acceleration provisions described above (or deemed to be due and payable as contemplated in paragraph (a) above) or if such a declaration has been rescinded and annulled, then there shall be deposited into the Senior Indenture Debt Service Fund moneys sufficient to pay the amounts described in clauses (i), (ii) and (iii) below, and all such moneys shall be applied, as promptly as practicable (but subject to the provisions of the last paragraph of this Section), (i) first, to the payment to the persons entitled thereto of all installments of interest then due on the Senior

Revenue Bonds, with interest on overdue installments, if lawful, at their respective rates from the respective dates upon which they became due, in the order of maturity and, if the amount available shall not be sufficient to pay in full any particular installment of interest, then to the payment ratably, according to the amounts due on such installment; (ii) second, to the payment to the persons entitled thereto of the unpaid principal of any of the Senior Revenue Bonds which shall have become due with interest on such Bonds at their respective rates from the respective dates upon which they became due and, if the amount available shall not be sufficient to pay in full the Senior Revenue Bonds due on any particular date, together with such interest, then to the payment ratably, according to the amount of principal and interest due on such date, in each case to the persons entitled thereto, without any discrimination or privilege; and (iii) third, to the payment of any other amounts then owing under the Senior Indenture, and, after said deposit into the Senior Indenture Debt Service Fund, there shall be paid the Subordinated Indebtedness issued or incurred by the Commission pursuant to the Senior Indenture.

Whenever moneys are to be applied pursuant to the above provisions, such moneys shall be applied at such times, and from time to time, as the Senior Trustee shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future. Whenever the Senior Trustee shall apply such funds, it shall fix the date (which shall be an Interest Payment Date unless it shall deem another date more suitable) upon which such application is to be made and upon such date interest on the amounts of principal and interest to be paid on such date shall cease to accrue. The Senior Trustee shall give notice of the deposit with it of any such moneys and of the fixing of any such date by mail to all Owners of Senior Revenue Bonds with respect to which the Event of Default occurred and shall not be required to make payment to any Senior Revenue Bond Owner until such Bonds shall be presented to the Senior Trustee for appropriate endorsement or for cancellation if fully paid.

[End of Appendix E]

[THIS PAGE INTENTIONALLY LEFT BLANK]

APPENDIX F

DEBT SERVICE REQUIREMENTS OF THE TURNPIKE REVENUE BONDS AND SUBORDINATE INDENTURE BONDS

[THIS PAGE INTENTIONALLY LEFT BLANK]

APPENDIX F
DEBT SERVICE REQUIREMENTS OF THE TURNPIKE SENIOR, SUBORDINATE AND SUBORDINATE SPECIAL REVENUE BONDS

Fiscal Year	Total Debt Service from Senior Revenue Bonds[1,2,3,4,5,6,7,9,10]	EB-5 Loans[8,10]	Total Debt Service from Senior Revenue Bonds (Including EB-5 Loans)[1,2,3,4,5,6,7,8,9,10]	Existing Debt Service from Subordinate Revenue Bonds[1,5,6,10]	2019A Subordinate Bonds: Principal[5]	2019A Subordinate Bonds: Interest[5]	2019A Subordinate Bonds: Total[5]	Total Debt Service from Subordinate Revenue Bonds[1,5,6,10]	Total Debt Service from MLF Revenue Bonds[5,6,10]	Aggregate Debt Service[1,2,3,4,5,6,7,8,9,10]
2020	$307,690,008	$5,900,000	$313,590,008	$309,028,368		$14,341,763	$14,341,763	$323,370,131	$45,529,213	$682,489,352
2021	517,559,010	7,219,444	524,778,455	326,177,873		33,526,200	33,526,200	359,704,073	50,931,200	935,413,727
2022	554,510,005	10,680,928	565,190,933	329,184,128		33,526,200	33,526,200	362,710,328	51,604,650	979,505,911
2023	298,991,653	13,436,222	312,427,875	331,576,405		33,526,200	33,526,200	365,102,605	59,126,390	736,656,870
2024	491,383,586	15,151,200	506,534,786	332,534,650		33,526,200	33,526,200	366,060,850	59,281,940	931,877,576
2025	428,737,639	16,970,750	445,708,389	335,113,390	1,960,000	33,526,200	35,486,200	370,599,590	60,312,290	876,620,270
2026	290,543,956	16,970,500	307,514,456	338,548,772	3,205,000	33,428,200	36,633,200	375,181,972	60,571,028	743,267,456
2027	262,132,556	16,969,250	279,101,806	357,412,099	4,545,000	33,267,950	37,812,950	395,225,049	78,064,521	752,391,376
2028	222,269,306	16,966,500	239,235,806	360,745,499	5,985,000	33,040,700	39,025,700	399,771,199	79,591,046	718,598,051
2029	228,316,556	16,971,750	245,288,306	369,545,561	7,430,000	32,741,450	40,171,450	409,717,011	81,369,284	736,374,601
2030	248,511,681	16,969,000	265,480,681	369,469,000	9,020,000	32,369,950	41,389,950	410,858,950	79,744,928	756,084,559
2031	255,547,431	16,968,000	272,515,431	372,106,281	10,760,000	31,918,950	42,678,950	414,785,231	81,307,178	768,607,840
2032	284,148,631	16,968,000	301,116,631	372,084,650	12,625,000	31,380,950	44,005,950	416,090,600	83,409,828	800,617,059
2033	288,207,131	16,973,250	305,180,381	372,291,781	14,620,000	30,749,700	45,369,700	417,661,481	85,702,103	808,543,965
2034	292,362,431	16,967,750	309,330,181	376,518,234	16,760,000	30,018,700	46,778,700	423,296,934	87,958,315	820,585,431
2035	298,478,731	16,971,250	315,449,981	382,230,644	19,040,000	29,180,700	48,220,700	430,451,344	90,333,746	836,235,071
2036	300,116,106	16,967,500	317,083,606	384,635,700	21,475,000	28,228,700	49,703,700	434,339,400	95,720,396	847,143,403
2037	298,373,207	16,976,000	315,349,207	388,717,786	24,075,000	27,154,950	51,229,950	439,947,736	98,002,446	853,299,389
2038	289,376,982	16,975,250	306,352,232	391,010,544	26,850,000	25,951,200	52,801,200	443,811,744	101,080,601	851,244,577
2039	294,289,136	16,969,750	311,258,886	390,755,500	29,810,000	24,608,700	54,418,700	445,174,200	85,807,859	842,240,945
2040	279,661,829	16,973,750	296,635,579	320,847,641	32,960,000	23,118,200	56,078,200	376,925,841	60,624,705	734,186,125
2041	295,256,886	16,970,750	312,227,636	375,331,837	36,315,000	21,470,200	57,785,200	433,117,037	61,573,041	806,917,715
2042	275,797,896	16,975,000	292,772,896	369,344,863	39,885,000	19,654,450	59,539,450	428,884,313	54,562,050	776,219,258
2043	280,299,292	16,970,000	297,269,292	201,069,288	43,680,000	17,660,200	61,340,200	262,409,488	40,098,483	599,777,262
2044	295,533,158	16,965,000	312,498,158	175,992,200	47,720,000	15,476,200	63,196,200	239,188,400	25,398,093	577,084,651
2045	252,304,485	16,968,750	269,273,235	119,328,731	52,020,000	13,090,200	65,110,200	184,438,931	5,176,815	458,888,982
2046	194,754,337	16,969,500	211,723,837	101,025,156	56,585,000	10,489,200	67,074,200	168,099,356		379,823,194
2047	165,834,776	16,971,000	182,805,776	45,819,481	60,870,000	8,225,800	69,095,800	114,915,281		297,721,057
2048	121,489,451	16,976,750	138,466,201	5,249,269	65,385,000	5,791,000	71,176,000	76,425,269		214,891,470
2049	98,640,070	16,975,000	115,615,070		70,140,000	3,175,600	73,315,600	73,315,600		188,930,670
2050	71,453,471	16,969,500	88,422,971		9,250,000	370,000	9,620,000	9,620,000		98,042,971
2051		16,968,750	16,968,750							16,968,750
2052		5,655,750	5,655,750							5,655,750
2053		5,654,250	5,654,250							5,654,250
TOTAL	**$8,782,571,399**	**$521,906,044**	**$9,304,477,444**	**$8,903,695,332**	**$722,970,000**	**$744,534,613**	**$1,467,504,613**	**$10,371,199,945**	**$1,762,882,146**	**$21,438,559,535**

(1) All variable rate debt, unless subject to an interest rate swap agreement, is shown at an assumed rate of 4.0% plus the fixed spread. All variable rate debt which is swapped to a fixed rate is shown at the fixed swap rate. As only a portion of principal on the 2013B, 2018A-1, 2018B Turnpike Revenue Bonds (SIFMA Index Notes) and Second Series of 2019 are swapped, the interest rate is a calculated as a weighted average between a) an assumed rate of 4.0% plus the fixed spread and b) the swap rate plus the fixed spread, based on the outstanding principal amounts of unhedged and hedged bonds.

(2) Interest reflects anticipated receipt of federal subsidy with respect to Build America Bonds, subject to applying the 6.2% reduction from federal fiscal year 2020 through federal fiscal year 2024. For information regarding the effects of sequestration on the federal subsidy payable with respect to the Commission's outstanding Build America Bonds, see "CURRENT RISK FACTORS - Reductions in federal subsidy payable to the Commission for its outstanding Build America Bonds due to sequestration" in this Official Statement.

(3) Does not reflect any future refunding of 2013B, 2014B-1, 2018A-1, 2018B Turnpike Revenue Bonds (SIFMA Index Notes) or Second Series of 2019 Bonds prior to their respective maturity dates. For the purposes of this table, the Second Series of 2019 Bonds are shown maturing at the term of the associated Letter of Credit. The Commission expects that it will refund such bonds prior to maturity subject to market conditions at the time. See APPENDIX A - "THE PENNSYLVANIA TURNPIKE COMMISSION - CERTAIN FINANCIAL INFORMATION - Future Financing Considerations."

(4) Interest net of capitalized interest; does not reflect any expected earnings credited against debt service.

(5) Totals may not add due to rounding.

(6) Interest amounts are inclusive of compounded interest on the Convertible Capital Appreciation Bonds and Capital Appreciation Bonds.

(7) All fixed rate debt, unless subject to an interest rate swap agreement, is shown at the actual interest rate. All fixed rate debt which is swapped to a floating rate is shown at an assumed rate of 4.0% plus the fixed spread.

(8) Includes six tranches of EB-5 Loans (3 tranches issued on March 18, 2016, the fourth tranche issued on May 11, 2016, the fifth tranche issued on February 21, 2018, and the sixth tranche issued on November 13, 2018). First five years of debt service is interest only. Thereafter, assumes 30 year level debt service takeout with Turnpike Revenue Bonds.

(9) This does not reflect the issuance of the Turnpike Revenue Refunding Bonds, Series of 2019 (Forward Delivery) which priced on September 20, 2018 and will be delivered on or about September 24, 2019 or the refunding of the Series 2009B Senior Revenue Bonds.

(10) This reflects all debt service due in Fiscal Year 2020, including those payments made on June 1, 2019.

APPENDIX G

TRAFFIC AND REVENUE STUDY

[THIS PAGE INTENTIONALLY LEFT BLANK]

CDM Smith
77 Hartland Street, Suite 201
East Hartford, CT 06108
tel: 860-529-7615
fax: 860-290-7845

April 29, 2019

Mr. Nikolaus Grieshaber
Chief Financial Officer
Pennsylvania Turnpike Commission
700 South Eisenhower Boulevard
Middletown, PA 17057

Subject: Pennsylvania Turnpike Commission 2019 Traffic and Toll Revenue Bring Down Letter

Dear Mr. Grieshaber:

The Pennsylvania Turnpike Commission (PTC or Commission) has asked CDM Smith to prepare this Bring Down Letter (2019 Bring Down Letter) to be used in support of the Commission's ongoing capital improvement program and other funding requirements. This letter provides an update to the *2018 Traffic and Toll Revenue Forecast Study* (2018 Forecast Study), dated April 20, 2018. The 2018 Forecast Study presented traffic and gross toll revenue forecasts from fiscal year (FY) 2016-17 through FY 2047-48. A fiscal year runs from June 1 through May 31. Actual traffic and revenue data were available through February 2018 for the 2018 Forecast Study and through February 2019 for the current 2019 Bring Down Letter.

This 2019 Bring Down Letter presents actual traffic and toll revenue data through February 2019 (12 months of additional data since completion of the 2018 Forecast Study), provides updated traffic and revenue forecasts through FY 2048-49, and compares the new forecasts with those from the 2018 Forecast Study. The updated forecasts reflect the following changes from the 2018 Forecast Study.

- E-ZPass market share estimates over the forecast period were reviewed and updated.
- Actual traffic and toll revenue data were updated to include information through February 2019.
- A review and adjustment of short-term traffic and revenue growth rates was conducted through 2022 based on the most recent actual trends.
- A review and adjustment of longer-term growth rate assumptions (beyond 2022) was conducted. Normally, longer term growth rates from the 2018 Forecast Study would not be adjusted in a Bring Down Letter. But in this case, commercial vehicle growth has been

higher than estimated in the 12 months since the 2018 Forecast Study was conducted. As such, we slightly dampened longer-term growth estimates for commercial vehicles.

- All Electronic Toll (AET) Conversion at AKH and Gateway is now scheduled to occur in October 2019 and those impacts are included in this 2019 Bring Down Letter. There was no scheduled conversion for these two facilities at the time of the 2018 Forecast Study, and were, therefore, not included at that time.

- A review of the major roadway improvements for any changes since completion of the 2018 Forecast Study.

These differences are described in more detail in the following sections.

It is important to note that the intent of this Bring Down Letter is to review and revise, if warranted, the short term forecasts originally developed as part of the 2018 Forecast Study. Any adjustments would be made based on the 12 months of new actual traffic and toll revenue experience since the 2018 Forecast Study. Since this Bring Down Letter does not include a reevaluation of the longer term economic growth forecasts, critical attention was placed on a review of near term growth through calendar year (CY) 2022 only. Growth rates beyond 2022 have been adjusted slightly down from those in the 2018 Forecast Study to compensate for higher than expected recent commercial vehicle growth.

The socioeconomic trends and forecasts for Pennsylvania, the surrounding states, and the United States, which formed the basis for the long-term traffic and toll revenue forecasts are provided in the 2018 Forecast Study. Additional information regarding the Pennsylvania Turnpike (Turnpike), such as historical toll rate increases, sample toll rates, E-ZPass market share, and more, are also provided in the 2018 Forecast Study.

Historical Toll Rate Increases and Current Toll Rates

Table 1 provides a summary of historical toll rate increases on the Turnpike System from 1987 to the most recent increase implemented on January 6, 2019. Rate increases are presented as a percent increase over the prior toll rate for cash and E-ZPass. Note that toll rate increases are generally applied systemwide, although occasional exemptions occur, as indicated in Table 1.

Periodic toll rate increases were implemented on the Turnpike System in 1987, 1991, 2004, and 2009. During the 2000s decade, E-ZPass was phased into the Turnpike System. Until CY 2011, cash and E-ZPass toll rates always increased by the same percent. The toll rate schedule implemented on January 2, 2011 created a differential between cash and E-ZPass, as E-ZPass rates were increased by 3.0 percent and cash toll were increased by 10.0 percent. Rate increases differed between cash and E-ZPass in the ensuing three years (2012, 2013 and 2014) further increasing the differential between cash and E-ZPass toll rates.

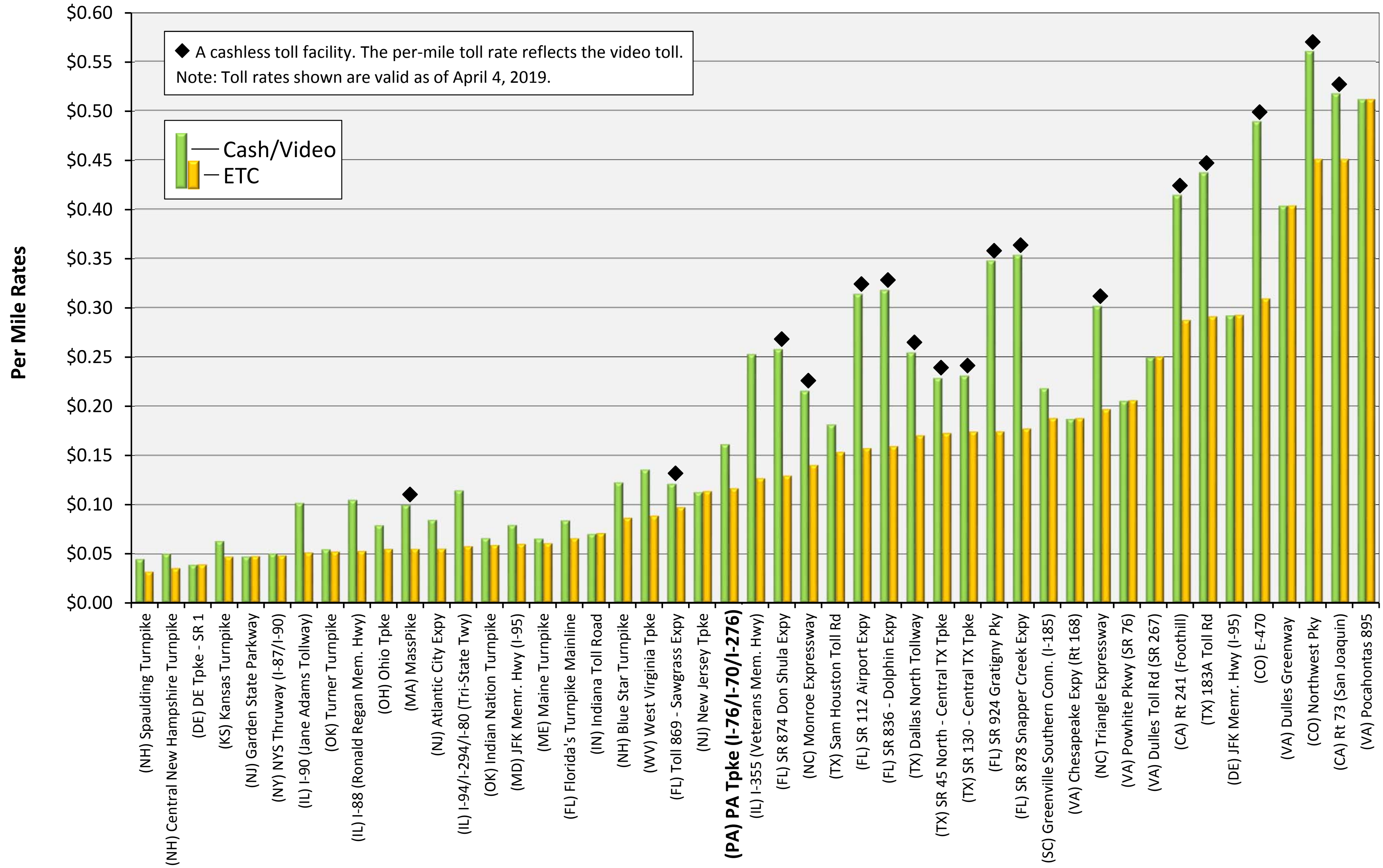
Toll rate increases have occurred annually since 2009, occurring on or close to January 1 of each year. Since CY 2015, the percent toll rate increases have been identical for cash and E-ZPass. In 2015 the toll rates increased by 5.0 percent over the prior year. From 2016 to 2019, toll rates increased by 6.0 percent annually for both cash and E-ZPass. It is assumed that annual toll rate increases will occur through the forecast period, as described in the section **Actual and Assumed Toll Rate Increases** and listed in Table 12.

Table 1
Historical Toll Rate Increases
Pennsylvania Turnpike

	Percent Increase		
Date	Cash	E-ZPass	**Comment**
1/2/1987	40.0	NA	E-ZPass was not yet implemented on the Turnpike
6/1/1991	32.0	NA	E-ZPass was not yet implemented on the Turnpike
8/1/2004	42.5	42.5	
1/4/2009	25.0	25.0	No increase on Turnpike I-576 or Turnpike 43 between Uniontown and Brownsville
1/3/2010	3.0	3.0	No increase on Turnpike I-576
1/2/2011	10.0	3.0	No increase on Turnpike I-576
1/1/2012	10.0	0.0	No increase on Turnpike I-576
1/6/2013	10.0	2.0	
1/5/2014	12.0	2.0	No increase on Turnpike I-576
1/4/2015	5.0	5.0	No increase on Turnpike I-576
1/3/2016	6.0	6.0	No increase on Turnpike I-576
1/8/2017	6.0	6.0	No increase on Turnpike I-576 or Delaware River Bridge
1/7/2018	6.0	6.0	No increase on Turnpike I-576, Delaware River Bridge, or the Northeast Extension barrier facilities
1/6/2019	6.0	6.0	

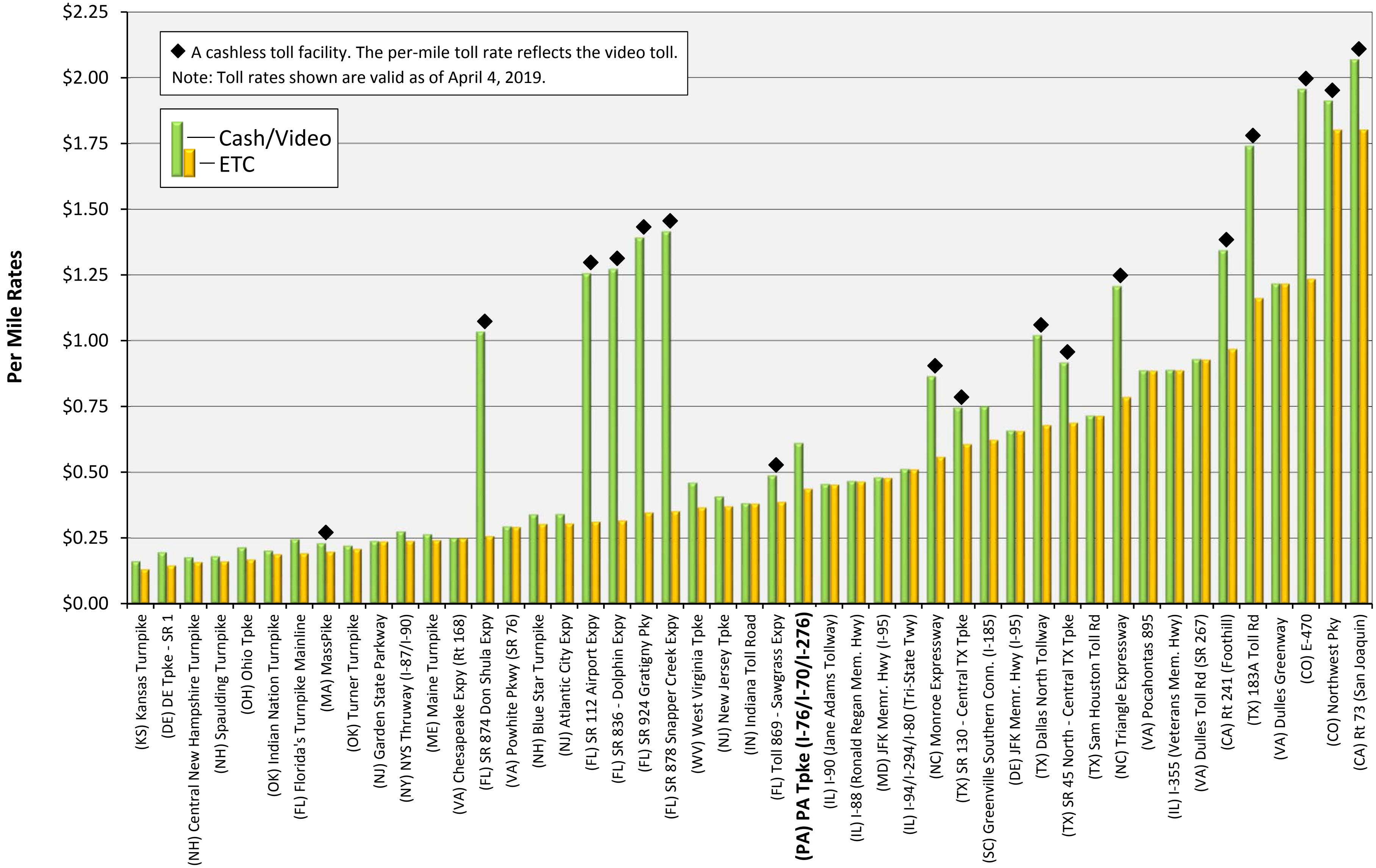
Note: Beginning in 2016, all cash toll rate increases also reflect video toll rate increases.

Figures 1 and 2 show the 2019 per-mile toll rates for a through trip on 43 U.S. toll facilities, for passenger cars and 5-axle commercial vehicles, respectively. Per-mile rates are shown for both cash/video and ETC transactions in each figure. If a facility is all electronic (does not accept cash payments), the video toll rate is shown as the equivalent of a cash toll rate. These facilities are marked with a diamond in the Figures 1 and 2.



COMPARISON OF 2019 PASSENGER CAR PER-MILE THROUGH TRIP TOLL RATES (DATA SORTED BY ETC TOLL RATES)

FIGURE 1



COMPARISON OF 2019 FIVE-AXLE VEHICLE PER-MILE THROUGH TRIP TOLL RATES (DATA SORTED BY ETC TOLL RATES)

FIGURE 2

The per-mile through-trip toll rate is shown for the Pennsylvania Turnpike Mainline, which represents a trip on I-76/I-276 between New Jersey and Ohio. Figure 1 shows that even with the 11 consecutive annual toll increases since 2009, the passenger car per-mile toll rates on the Pennsylvania Turnpike System, at 12 cents per mile for E-ZPass customers and 16 cents per mile for cash customers, are still very reasonably priced compared to other toll facilities in the U.S.

Toll rates for 5-axle commercial vehicles (represented by weight class 6) are equivalent to 44 cents per mile for E-ZPass and 61 cents per mile for cash transactions for a through trip on the Pennsylvania Turnpike Mainline. It should be remembered that the majority of both passenger car and commercial vehicle trips are made using the more cost-effective E-ZPass payment method.

Annual Transaction and Gross Toll Revenue Trends

Table 2 provides a summary of annual Systemwide transactions and gross toll revenue trends from FY 1994-95 through FY 2017-18. The Pennsylvania Turnpike System is a large, mature system that has demonstrated long-term growth in transactions and toll revenue. Between FY 1997-98 and FY 2007-08, Turnpike transactions and gross toll revenue grew by an average annual rate of 2.3 percent and 6.0 percent, respectively. Similarly, in the 10 years from FY 2007-08 to FY 2017-18, Turnpike transactions and gross toll revenue grew by average annual rates of 0.6 percent and 7.2 percent, respectively. Traffic growth in the most recently completed fiscal year (2017-18) was 0.3 percent. Revenue growth in the most recent fiscal year was 7.9 percent, largely due to the 6.0 percent toll increase.

Monthly Transactions and Gross Toll revenue Trends

Tables 3 through 11 present recent monthly transaction and gross toll revenue trends from FY 2015-16 through February 2019 for all PTC facilities. The facilities are summarized in the following order:

- Table 3 - The Total Turnpike System (comprised of all the facilities listed below);
- Table 4 - The Ticket System: comprised of I-76/I-276 (including Gateway Barrier Plaza) and I-476;
- Table 5 - The combined Barrier System: comprised of all facilities listed below;
- Table 6 - Turnpike 43 (Mon/Fayette Expressway);
- Table 7 - Turnpike 66 (Amos K. Hutchinson Bypass);
- Table 8 - Northeast Extension (I-476) Barrier Plazas;

Table 2
Annual Systemwide Traffic and Gross Toll Revenue Trends
Pennsylvania Turnpike System
(in thousands)

	Transactions						Gross Toll Revenue					
Fiscal Year (1)	Cars	Percent Change Over Prior Year	Trucks	Percent Change Over Prior Year	Total	Percent Change Over Prior Year	Cars	Percent Change Over Prior Year	Trucks	Percent Change Over Prior Year	Total	Percent Change Over Prior Year
1994-95	114,033	6.9	15,620	9.5	129,653	7.2	$165,850	4.9	$131,749	7.2	$297,599	5.9
1995-96	121,911	6.9	16,719	7.0	138,630	6.9	172,339	3.9	136,269	3.4	308,608	3.7
1996-97	126,654	3.9	17,479	4.5	144,133	4.0	179,303	4.0	140,837	3.4	320,140	3.7
1997-98	132,472	4.6	18,627	6.6	151,099	4.8	186,290	3.9	149,036	5.8	335,326	4.7
1998-99	136,399	3.0	19,833	6.5	156,232	3.4	191,804	3.0	158,761	6.5	350,565	4.5
1999-00	138,762	1.7	21,341	7.6	160,103	2.5	195,301	1.8	172,035	8.4	367,336	4.8
2000-01	141,033	1.6	21,278	(0.3)	162,311	1.4	193,563	(0.9)	172,337	0.2	365,900	(0.4)
2001-02	150,496	6.7	22,298	4.8	172,794	6.5	212,650	9.9	163,101	(5.4)	375,751	2.7
2002-03	156,220	3.8	23,179	4.0	179,399	3.8	219,201	3.1	168,021	3.0	387,222	3.1
2003-04	163,612	4.7	24,407	5.3	188,019	4.8	228,515	4.2	180,229	7.3	408,744	5.6
2004-05	163,316	(0.2)	25,109	2.9	188,425	0.2	309,032	35.2	236,126	31.0	545,158	33.4
2005-06	160,590	(1.7)	25,311	0.8	185,901	(1.3)	321,268	4.0	267,369	13.2	588,637	8.0
2006-07	160,107	(0.3)	25,316	0.0	185,423	(0.3)	322,781	0.5	269,861	0.9	592,642	0.7
2007-08	164,097	2.5	25,455	0.5	189,552	2.2	327,761	1.5	271,165	0.5	598,926	1.1
2008-09	162,638	(0.9)	23,583	(7.4)	186,220	(1.8)	356,345	8.7	259,259	(4.4)	615,605	2.8
2009-10	163,599	0.6	22,933	(2.8)	186,531	0.2	415,981	16.7	302,057	16.5	718,038	16.6
2010-11	165,231	1.0	23,812	3.8	189,043	1.3	435,752	4.8	328,105	8.6	763,856	6.4
2011-12	164,955	(0.2)	24,125	1.3	189,080	0.0	455,133	4.4	342,646	4.4	797,779	4.4
2012-13	163,690	(0.8)	24,207	0.3	187,897	(0.6)	471,514	3.6	350,226	2.2	821,740	3.0
2013-14	163,788	0.1	24,891	2.8	188,679	0.4	497,671	5.5	368,395	5.2	866,066	5.4
2014-15	166,192	1.5	26,144	5.0	192,336	1.9	533,054	7.1	401,197	8.9	934,251	7.9
2015-16 (2)	171,569	3.2	27,319	4.5	198,887	3.4	588,295	10.4	443,325	10.5	1,031,620	10.4
2016-17 (3,4)	172,799	0.7	27,703	1.4	200,501	0.8	638,787	8.6	476,188	7.4	1,114,975	8.1
2017-18 (5)	172,512	(0.2)	28,650	3.4	201,162	0.3	678,741	6.3	524,418	10.1	1,203,158	7.9

Average Annual Percent Change

	Transactions			Gross Toll Revenue		
Fiscal Year	Cars	Trucks	Total	Cars	Trucks	Total
FY 1997-98 - FY 2007-08	2.2	3.2	2.3	5.8	6.2	6.0
FY 2007-08 - FY 2017-18	0.5	1.2	0.6	7.6	6.8	7.2
FY 1994-95 - FY 2017-18	1.8	2.7	1.9	6.3	6.2	6.3

(1) Refer to Table 1 for toll rate increase information.
(2) The Delaware River Bridge toll plaza was converted from part of the Ticket System to a one-way barrier AET facility in January 2016.
(3) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(4) AET conversion was implemented on Turnpike I-376 Beaver Valley Expressway in May 2017.
(5) AET conversion and vehicle classification changes were implemented on the Northeast Extension Barrier Facilities in April 2018.

Table 3

Total Turnpike System - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

	Passenger Cars						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	14,849	3.7	15,395	0.3	15,438	(0.5)	15,361
July	15,643	0.9	15,783	(1.7)	15,522	0.3	15,566
August	15,584	2.5	15,967	(0.1)	15,957	1.1	16,134
September	14,220	4.2	14,817	(0.6)	14,724	(1.5)	14,503
October	15,067	1.1	15,236	(0.1)	15,221	1.2	15,396
November	13,965	3.5	14,458	(1.0)	14,317	(0.5)	14,242
December	13,960	0.7	14,051	(2.2)	13,746	1.7	13,982
January	12,276	2.7	12,609	(0.5)	12,542	(0.3)	12,504
February	12,477	(8.6)	11,407	4.8	11,958	(0.2)	11,930
March	14,328	(6.4)	13,416	1.3	13,591		
April	14,105	2.1	14,400	(1.0)	14,259		
May	15,095	1.1	15,260	(0.2)	15,237		
Total Year	171,569	0.7	172,799	(0.2)	172,512		
June - Feb	128,040	1.3	129,723	(0.2)	129,425	0.1	129,619

	Commercial Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	2,398	6.4	2,550	1.0	2,575	0.9	2,596
July	2,429	(0.4)	2,419	(0.0)	2,419	6.3	2,573
August	2,390	9.5	2,616	1.7	2,662	3.5	2,755
September	2,364	3.3	2,442	(0.4)	2,431	(0.5)	2,418
October	2,450	(0.8)	2,429	4.9	2,547	7.3	2,732
November	2,125	5.2	2,236	3.9	2,323	3.0	2,391
December	2,116	1.7	2,153	(0.4)	2,146	2.5	2,198
January	1,947	3.4	2,014	8.0	2,175	4.3	2,268
February	1,996	(9.0)	1,815	12.0	2,034	1.9	2,073
March	2,338	(5.2)	2,216	3.5	2,295		
April	2,333	(2.8)	2,268	5.2	2,387		
May	2,434	4.5	2,542	4.5	2,657		
Total Year	27,319	1.4	27,703	3.4	28,650		
June - Feb	20,214	2.3	20,676	3.1	21,312	3.3	22,006

	Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	17,246	4.1	17,945	0.4	18,013	(0.3)	17,958
July	18,072	0.7	18,202	(1.4)	17,942	1.1	18,138
August	17,974	3.4	18,583	0.2	18,619	1.5	18,889
September	16,584	4.1	17,260	(0.6)	17,156	(1.4)	16,921
October	17,517	0.8	17,665	0.6	17,768	2.0	18,128
November	16,090	3.8	16,695	(0.3)	16,640	(0.0)	16,633
December	16,076	0.8	16,204	(1.9)	15,891	1.8	16,180
January	14,222	2.8	14,622	0.7	14,718	0.4	14,772
February	14,472	(8.6)	13,223	5.8	13,992	0.1	14,003
March	16,666	(6.2)	15,632	1.6	15,886		
April	16,438	1.4	16,668	(0.1)	16,646		
May	17,529	1.6	17,802	0.5	17,893		
Total Year	198,887	0.8	200,501	0.3	201,162		
June - Feb	148,254	1.4	150,399	0.2	150,737	0.6	151,624

Gross Toll Revenue (in $1,000s)

	Passenger Cars						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$50,991	12.3	$57,273	8.0	$61,877	6.5	$65,886
July	56,625	11.2	62,975	4.4	65,722	5.3	69,178
August	56,072	7.3	60,179	7.4	64,611	9.2	70,545
September	47,419	15.5	54,770	3.4	56,620	6.6	60,348
October	49,331	11.5	55,018	5.1	57,806	6.6	61,611
November	47,013	11.5	52,436	5.1	55,122	7.3	59,156
December	45,446	11.3	50,563	3.5	52,345	9.6	57,377
January	41,103	8.0	44,374	5.3	46,741	9.0	50,969
February	40,633	(4.1)	38,957	14.4	44,576	11.8	49,844
March	49,488	(2.9)	48,033	11.9	53,737		
April	49,275	13.0	55,683	2.7	57,201		
May	54,899	6.6	58,526	6.6	62,381		
Total Year	$588,295	8.6	$638,787	6.3	$678,741		
June - Feb	$434,633	9.6	$476,545	6.1	$505,421	7.8	$544,914

	Commercial Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$37,614	13.4	$42,661	4.6	$44,643	11.5	$49,757
July	37,680	8.5	40,876	2.6	41,947	17.0	49,069
August	36,983	17.2	43,337	6.6	46,210	13.3	52,369
September	36,472	12.4	40,984	3.4	42,371	11.7	47,311
October	37,786	5.6	39,895	11.8	44,599	17.0	52,185
November	33,096	12.1	37,100	10.4	40,944	15.0	47,087
December	33,264	10.9	36,880	5.7	39,000	11.9	43,630
January	34,106	7.3	36,597	15.4	42,222	14.3	48,261
February	35,122	(6.2)	32,933	21.9	40,130	12.4	45,096
March	40,322	0.7	40,619	12.3	45,627		
April	39,950	1.5	40,540	13.6	46,057		
May	40,930	6.9	43,767	15.8	50,666		
Total Year	$443,325	7.4	$476,188	10.1	$524,418		
June - Feb	$322,123	9.0	$351,263	8.8	$382,067	13.8	$434,764

	Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$88,606	12.8	$99,935	6.6	$106,521	8.6	$115,643
July	94,305	10.1	103,851	3.7	107,669	9.8	118,247
August	93,054	11.2	103,516	7.1	110,821	10.9	122,914
September	83,891	14.1	95,754	3.4	98,991	8.8	107,658
October	87,117	8.9	94,912	7.9	102,405	11.1	113,795
November	80,109	11.8	89,536	7.3	96,066	10.6	106,243
December	78,709	11.1	87,443	4.5	91,344	10.6	101,007
January	75,209	7.7	80,971	9.9	88,964	11.5	99,230
February	75,755	(5.1)	71,890	17.8	84,707	12.1	94,940
March	89,811	(1.3)	88,653	12.1	99,364		
April	89,224	7.8	96,223	7.3	103,259		
May	95,829	6.7	102,293	10.5	113,047		
Total Year	$1,031,620	8.1	$1,114,975	7.9	$1,203,158		
June - Feb	$756,756	9.4	$827,807	7.2	$887,488	10.4	$979,678

NOTES:
(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.
(2) The Delaware River Bridge toll plaza was converted from part of the Ticket System to a one-way barrier AET facility in January 2016.
(3) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.
(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(5) AET conversion was implemented on Turnpike I-376 Beaver Valley Expressway in May 2017.
(6) AET conversion and vehicle classification changes were implemented on the Northeast Extension Barrier Facilities in April 2018.
(7) AET conversion and vehicle classification changes were implemented on the Turnpike I-576 Findlay Connector in June 2018.

Table 4

Ticket System (Including Gateway Barrier Plaza) - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	11,995	0.1	12,013	0.1	12,029	(1.0)	11,904	1,976	2.6	2,028	(0.1)	2,025	0.1	2,027	13,971	0.5	14,041	0.1	14,054	(0.9)	13,931
July	12,583	(3.1)	12,196	(1.4)	12,020	(0.6)	11,954	1,998	(3.5)	1,927	(1.5)	1,898	5.3	2,000	14,581	(3.1)	14,123	(1.4)	13,919	0.3	13,954
August	12,525	(1.4)	12,348	0.1	12,357	0.1	12,367	1,951	6.7	2,082	0.1	2,084	2.3	2,133	14,476	(0.3)	14,430	0.1	14,441	0.4	14,500
September	11,362	1.0	11,480	(0.8)	11,386	(2.3)	11,119	1,925	0.8	1,941	(2.0)	1,903	(1.6)	1,872	13,287	1.0	13,421	(1.0)	13,289	(2.2)	12,992
October	12,064	(1.9)	11,836	(0.1)	11,826	(0.5)	11,762	1,997	(3.4)	1,930	3.6	2,000	5.8	2,115	14,061	(2.1)	13,766	0.4	13,826	0.4	13,877
November	11,281	0.2	11,301	(1.0)	11,185	(2.5)	10,900	1,748	1.6	1,777	3.3	1,835	1.7	1,866	13,029	0.4	13,078	(0.4)	13,019	(1.9)	12,766
December	11,302	(2.6)	11,005	(2.5)	10,725	0.0	10,726	1,763	(1.7)	1,732	(1.1)	1,713	0.8	1,727	13,065	(2.5)	12,738	(2.3)	12,439	0.1	12,452
January	9,605	4.4	10,033	(1.8)	9,851	(2.1)	9,643	1,552	5.8	1,642	5.8	1,738	2.5	1,780	11,158	4.6	11,675	(0.7)	11,588	(1.4)	11,423
February	9,738	(5.3)	9,226	1.2	9,339	(2.4)	9,116	1,606	(5.8)	1,514	6.6	1,614	0.6	1,623	11,345	(5.3)	10,740	2.0	10,953	(2.0)	10,739
March	11,168	(5.2)	10,589	(0.4)	10,544			1,869	(3.9)	1,796	1.2	1,817			13,037	(5.0)	12,384	(0.2)	12,361		
April	10,953	2.7	11,247	(1.4)	11,090			1,858	(2.8)	1,807	4.0	1,879			12,812	1.9	13,054	(0.6)	12,970		
May	11,717	1.2	11,855	(0.7)	11,775			1,927	3.9	2,003	3.4	2,070			13,644	1.6	13,858	(0.1)	13,845		
Total Year	136,294	(0.9)	135,128	(0.7)	134,127			22,172	0.0	22,179	1.8	22,577			158,466	(0.7)	157,307	(0.4)	156,704		
June - Feb	102,456	(1.0)	101,437	(0.7)	100,717	(1.2)	99,490	16,517	0.3	16,573	1.4	16,811	2.0	17,144	118,973	(0.8)	118,010	(0.4)	117,528	(0.8)	116,634

Gross Toll Revenue (in $1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$47,358	6.4	$50,374	8.9	$54,875	6.4	$58,373	$36,014	8.7	$39,137	4.7	$40,969	11.6	$45,711	$83,371	7.4	$89,511	7.1	$95,844	8.6	$104,084
July	52,753	5.5	55,659	5.0	58,459	5.0	61,355	36,048	4.1	37,543	2.5	38,493	17.1	45,081	88,801	5.0	93,201	4.0	96,952	9.8	106,435
August	52,191	1.3	52,888	8.1	57,199	9.0	62,362	35,345	12.5	39,776	6.6	42,397	13.4	48,064	87,536	5.9	92,665	7.5	99,596	10.9	110,425
September	43,823	9.6	48,028	3.7	49,807	6.4	52,979	34,839	7.8	37,555	3.4	38,829	12.0	43,495	78,662	8.8	85,583	3.6	88,636	8.8	96,474
October	45,567	5.9	48,264	5.5	50,936	5.3	53,651	36,072	1.3	36,541	12.0	40,913	16.8	47,768	81,639	3.9	84,805	8.3	91,850	10.4	101,419
November	43,632	5.6	46,084	5.9	48,799	5.8	51,617	31,665	7.0	33,896	10.8	37,560	15.0	43,205	75,297	6.2	79,980	8.0	86,360	9.8	94,822
December	42,110	5.4	44,375	3.9	46,096	8.3	49,909	31,906	6.0	33,828	6.0	35,866	11.6	40,028	74,016	5.7	78,203	4.8	81,962	9.7	89,938
January	35,973	9.8	39,489	4.0	41,070	7.2	44,033	31,378	9.0	34,189	14.2	39,045	13.5	44,332	67,351	9.4	73,678	8.7	80,116	10.3	88,365
February	35,190	2.0	35,898	9.1	39,149	10.0	43,056	32,343	(2.2)	31,628	17.3	37,084	11.8	41,467	67,533	(0.0)	67,526	12.9	76,233	10.9	84,523
March	43,273	(0.9)	42,900	10.5	47,415			37,096	2.3	37,948	11.2	42,183			80,369	0.6	80,848	10.8	89,598		
April	42,999	14.5	49,234	2.5	50,489			36,662	1.8	37,308	13.8	42,474			79,661	8.6	86,542	7.4	92,963		
May	48,163	7.4	51,721	6.5	55,089			37,552	6.9	40,145	16.0	46,562			85,715	7.2	91,866	10.7	101,651		
Total Year	$533,031	6.0	$564,915	6.1	$599,384			$416,919	5.4	$439,495	9.8	$482,376			$949,950	5.7	$1,004,410	7.7	$1,081,760		
June - Feb	$398,596	5.6	$421,060	6.0	$446,391	6.9	$477,334	$305,610	6.0	$324,093	8.4	$351,157	13.7	$399,151	$704,206	5.8	$745,154	7.0	$797,547	9.9	$876,485

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.

(3) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.

Table 5

Combined Barrier Facilities - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Passenger Cars

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	2,854	18.5	3,382	0.8	3,409	1.4	3,457
July	3,060	17.2	3,587	(2.4)	3,502	3.1	3,612
August	3,059	18.3	3,619	(0.5)	3,600	4.6	3,767
September	2,858	16.8	3,337	0.0	3,338	1.4	3,384
October	3,004	13.2	3,399	(0.1)	3,395	7.0	3,634
November	2,684	17.7	3,158	(0.8)	3,133	6.7	3,343
December	2,658	14.6	3,046	(0.8)	3,021	7.8	3,257
January	2,670	(3.5)	2,576	4.5	2,692	6.3	2,861
February	2,738	(20.3)	2,181	20.1	2,619	7.5	2,814
March	3,160	(10.5)	2,827	7.8	3,047		
April	3,152	0.0	3,152	0.5	3,169		
May	3,378	0.8	3,405	1.7	3,462		
Total Year	35,274	6.8	37,671	1.9	38,385		
June - Feb	25,584	10.6	28,286	1.5	28,708	4.9	30,129

Commercial Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	421	23.9	522	5.2	549	3.6	569
July	431	14.1	492	5.9	521	10.0	573
August	439	21.7	534	8.1	578	7.7	622
September	439	14.1	501	5.5	529	3.2	546
October	452	10.4	500	9.5	547	12.7	617
November	377	21.9	459	6.2	488	7.6	525
December	353	19.1	421	2.7	432	9.1	471
January	394	(5.7)	372	17.7	438	11.5	488
February	389	(22.5)	302	39.2	420	7.3	450
March	468	(10.3)	420	13.7	478		
April	475	(2.8)	462	10.0	508		
May	507	6.5	539	8.7	586		
Total Year	5,147	7.3	5,524	9.9	6,073		
June - Feb	3,697	11.0	4,103	9.7	4,501	8.0	4,861

Total Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	3,275	19.2	3,904	1.4	3,958	1.7	4,026
July	3,491	16.9	4,079	(1.4)	4,023	4.0	4,185
August	3,498	18.7	4,154	0.6	4,178	5.1	4,389
September	3,297	16.4	3,839	0.7	3,867	1.6	3,930
October	3,456	12.8	3,899	1.1	3,942	7.8	4,251
November	3,060	18.2	3,617	0.1	3,620	6.8	3,867
December	3,011	15.1	3,467	(0.4)	3,453	8.0	3,728
January	3,065	(3.8)	2,948	6.2	3,129	7.0	3,349
February	3,127	(20.6)	2,483	22.4	3,039	7.4	3,264
March	3,629	(10.5)	3,247	8.5	3,525		
April	3,627	(0.4)	3,614	1.7	3,677		
May	3,885	1.5	3,945	2.6	4,048		
Total Year	40,422	6.9	43,195	2.9	44,459		
June - Feb	29,281	10.6	32,389	2.5	33,209	5.4	34,990

Gross Toll Revenue (in $1,000s)

Passenger Cars

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$3,633	89.9	$6,899	1.5	$7,002	7.3	$7,514
July	3,873	88.9	7,316	(0.7)	7,263	7.7	7,823
August	3,881	87.9	7,291	1.7	7,413	10.4	8,183
September	3,596	87.5	6,741	1.1	6,813	8.2	7,369
October	3,764	79.4	6,754	1.7	6,870	15.9	7,960
November	3,381	87.9	6,352	(0.5)	6,323	19.2	7,539
December	3,336	85.5	6,187	1.0	6,249	19.5	7,468
January	5,130	(4.8)	4,885	16.1	5,671	22.3	6,935
February	5,443	(43.8)	3,059	77.4	5,428	25.1	6,789
March	6,215	(17.4)	5,133	23.2	6,322		
April	6,276	2.8	6,449	4.1	6,712		
May	6,736	1.0	6,806	7.1	7,292		
Total Year	$55,263	33.7	$73,872	7.4	$79,357		
June - Feb	$36,037	54.0	$55,484	6.4	$59,030	14.5	$67,580

Commercial Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$1,601	120.1	$3,524	4.3	$3,674	10.1	$4,046
July	1,631	104.3	3,333	3.6	3,454	15.5	3,988
August	1,638	117.4	3,561	7.1	3,813	12.9	4,305
September	1,634	109.9	3,429	3.3	3,543	7.7	3,816
October	1,714	95.6	3,353	9.9	3,686	19.8	4,416
November	1,432	123.8	3,204	5.6	3,384	14.7	3,882
December	1,357	124.9	3,053	2.7	3,133	14.9	3,602
January	2,728	(11.7)	2,408	32.0	3,177	23.7	3,929
February	2,779	(53.1)	1,305	133.5	3,046	19.1	3,629
March	3,227	(17.2)	2,671	28.9	3,444		
April	3,288	(1.7)	3,232	10.9	3,583		
May	3,378	7.2	3,622	13.3	4,104		
Total Year	$26,406	39.0	$36,694	14.6	$42,042		
June - Feb	$16,514	64.5	$27,169	13.8	$30,911	15.2	$35,613

Total Vehicles

Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$5,234	99.1	$10,423	2.4	$10,677	8.3	$11,559
July	5,504	93.5	10,649	0.6	10,717	10.2	11,812
August	5,518	96.6	10,851	3.4	11,226	11.3	12,488
September	5,229	94.5	10,171	1.8	10,355	8.0	11,184
October	5,478	84.5	10,107	4.4	10,556	17.2	12,377
November	4,812	98.6	9,556	1.6	9,706	17.7	11,421
December	4,693	96.9	9,240	1.5	9,382	18.0	11,070
January	7,858	(7.2)	7,293	21.3	8,848	22.8	10,864
February	8,222	(46.9)	4,364	94.2	8,474	22.9	10,417
March	9,442	(17.3)	7,804	25.1	9,766		
April	9,563	1.2	9,680	6.4	10,295		
May	10,114	3.1	10,427	9.3	11,397		
Total Year	$81,670	35.4	$110,566	9.8	$121,399		
June - Feb	$52,550	57.3	$82,654	8.8	$89,941	14.7	$103,193

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.

(3) The Delaware River Bridge toll plaza was converted from part of the Ticket System to a one-way barrier AET facility in January 2016.

(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.

(5) AET conversion was implemented on Turnpike I-376 Beaver Valley Expressway in May 2017.

(6) AET conversion and vehicle classification changes were implemented on the Northeast Extension Barrier Facilities in April 2018.

(7) AET conversion and vehicle classification changes were implemented on the Turnpike I-576 Findlay Connector in June 2018.

Table 6

Turnpike 43 - Mon/Fayette Expressway - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Month	Passenger Cars 2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	Commercial Vehicles 2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	Total Vehicles 2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	1,098	(1.4)	1,083	(1.0)	1,072	0.7	1,079	98	(2.9)	95	2.4	97	(0.1)	97	1,196	(1.5)	1,178	(0.8)	1,169	0.6	1,176
July	1,141	(2.6)	1,112	(3.9)	1,068	4.7	1,118	99	(12.9)	86	8.9	94	6.2	99	1,240	(3.4)	1,198	(3.0)	1,161	4.8	1,217
August	1,151	(0.9)	1,141	(2.2)	1,116	3.0	1,149	110	(13.2)	95	12.8	107	(5.6)	101	1,261	(2.0)	1,236	(1.0)	1,223	2.3	1,251
September	1,147	(3.5)	1,107	(2.8)	1,076	0.4	1,080	119	(25.0)	89	9.1	97	(2.5)	95	1,266	(5.5)	1,196	(1.9)	1,173	0.2	1,175
October	1,221	(7.1)	1,134	(1.6)	1,116	4.1	1,162	107	(16.9)	89	15.6	103	5.6	108	1,327	(7.9)	1,223	(0.3)	1,219	4.2	1,270
November	1,058	(4.3)	1,013	(3.2)	980	4.8	1,027	86	(9.0)	78	9.5	86	5.9	91	1,145	(4.7)	1,091	(2.3)	1,066	4.9	1,118
December	1,043	(5.6)	984	(3.3)	952	1.6	967	75	(3.5)	73	(1.8)	71	4.6	75	1,118	(5.5)	1,057	(3.2)	1,023	1.8	1,042
January	887	1.7	902	(2.8)	876	0.4	880	67	(5.4)	63	12.2	71	10.1	78	953	1.2	965	(1.9)	947	1.1	957
February	932	(4.3)	892	(2.4)	870	1.5	884	63	3.7	65	9.6	71	0.9	72	995	(3.8)	957	(1.6)	942	1.5	956
March	1,061	(3.1)	1,028	(3.2)	995			86	(8.8)	78	(0.4)	78			1,147	(3.5)	1,106	(3.0)	1,073		
April	1,050	(2.0)	1,029	(0.3)	1,026			83	(1.0)	82	6.9	88			1,133	(1.9)	1,111	0.2	1,113		
May	1,088	(0.3)	1,085	1.2	1,098			90	9.3	98	8.1	106			1,178	0.4	1,183	1.7	1,204		
Total Year	12,876	(2.9)	12,508	(2.1)	12,244			1,082	(8.3)	992	7.8	1,070			13,958	(3.3)	13,500	(1.4)	13,313		
June - Feb	9,677	(3.2)	9,366	(2.6)	9,126	2.4	9,345	823	(10.9)	734	8.7	798	2.4	817	10,500	(3.8)	10,099	(1.7)	9,923	2.4	10,162

Gross Toll Revenue (in $1,000s)

Month	Passenger Cars 2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	Commercial Vehicles 2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	Total Vehicles 2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$1,524	4.7	$1,597	3.9	$1,659	6.8	$1,772	$374	1.6	$380	12.2	$426	8.5	$462	$1,898	4.1	$1,976	5.5	$2,085	7.1	$2,234
July	1,577	2.8	1,621	3.1	1,671	12.4	1,877	375	(7.8)	346	15.9	400	17.8	471	1,952	0.8	1,966	5.3	2,071	13.4	2,349
August	1,596	5.2	1,678	2.6	1,722	10.6	1,904	405	(6.0)	380	20.0	457	4.6	478	2,000	2.9	2,058	5.9	2,179	9.3	2,382
September	1,541	4.3	1,606	2.2	1,642	7.8	1,769	425	(14.4)	364	14.9	418	6.9	447	1,966	0.2	1,970	4.5	2,060	7.6	2,216
October	1,632	1.4	1,654	3.5	1,711	10.9	1,898	397	(8.8)	363	20.5	437	16.3	508	2,029	(0.6)	2,017	6.5	2,148	12.0	2,406
November	1,445	(0.1)	1,443	3.7	1,496	12.6	1,684	326	(1.7)	321	16.1	373	16.0	432	1,772	(0.4)	1,764	5.9	1,869	13.3	2,116
December	1,375	3.2	1,419	1.9	1,446	12.4	1,625	293	2.5	301	5.0	316	18.3	374	1,668	3.1	1,719	2.5	1,762	13.5	1,999
January	1,264	6.6	1,348	3.8	1,399	10.2	1,542	279	(1.0)	277	19.6	331	22.1	404	1,543	5.3	1,624	6.5	1,730	12.5	1,946
February	1,371	(1.7)	1,348	4.1	1,403	10.4	1,548	272	6.2	289	18.5	343	10.4	378	1,643	(0.4)	1,637	6.6	1,746	10.4	1,926
March	1,523	2.9	1,568	2.2	1,602			348	1.0	351	8.2	380			1,871	2.6	1,919	3.3	1,982		
April	1,500	4.5	1,568	6.6	1,672			334	8.1	362	16.3	421			1,834	5.2	1,930	8.4	2,093		
May	1,586	5.0	1,666	7.9	1,798			362	18.2	428	16.6	499			1,948	7.5	2,094	9.7	2,298		
Total Year	$17,934	3.2	$18,516	3.8	$19,222			$4,192	(0.7)	$4,161	15.4	$4,800			$22,126	2.5	$22,677	5.9	$24,021		
June - Feb	$13,325	2.9	$13,714	3.2	$14,149	10.4	$15,621	$3,147	(4.1)	$3,020	15.9	$3,500	13.0	$3,954	$16,472	1.6	$16,734	5.5	$17,649	10.9	$19,575

NOTES:
(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.
(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.

Table 7

Turnpike 66 - Amos K. Hutchinson Bypass - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	579	(2.7)	563	0.7	567	(1.9)	556	95	(2.4)	93	7.4	100	1.0	101	674	(2.7)	656	1.6	667	(1.5)	657
July	591	(5.3)	560	(1.3)	553	1.1	559	98	(10.4)	88	7.1	94	7.2	101	689	(6.0)	648	(0.2)	647	2.0	660
August	587	(2.5)	572	1.0	578	0.8	583	97	(0.0)	96	8.1	104	3.6	108	684	(2.2)	669	2.0	682	1.2	691
September	571	(2.0)	560	(0.4)	558	(0.5)	555	93	0.8	94	0.9	95	(2.5)	92	665	(1.6)	654	(0.2)	653	(0.8)	648
October	600	(3.9)	577	(0.4)	575	1.0	580	104	(11.5)	92	5.9	98	8.1	105	705	(5.1)	669	0.5	672	2.0	686
November	550	(1.4)	542	(0.9)	537	(1.2)	531	86	(7.0)	80	5.4	84	2.4	86	635	(2.2)	621	(0.1)	621	(0.7)	617
December	564	(4.3)	540	(2.1)	529	0.7	533	82	(14.6)	70	5.6	74	7.8	80	646	(5.6)	610	(1.2)	603	1.6	612
January	480	1.3	487	(1.0)	482	(1.4)	475	72	(5.1)	69	12.1	77	5.7	81	552	0.5	555	0.6	558	(0.4)	556
February	489	(4.5)	467	(1.4)	460	0.1	461	70	(5.1)	67	6.7	71	5.6	75	559	(4.6)	533	(0.4)	531	0.8	536
March	554	(3.0)	537	(0.8)	533			84	(2.4)	82	1.9	84			639	(2.9)	620	(0.5)	617		
April	549	(0.2)	548	(2.1)	536			89	(0.9)	88	2.1	90			637	(0.3)	636	(1.5)	626		
May	575	0.3	577	0.3	579			94	5.3	99	2.8	101			669	1.0	676	0.7	680		
Total Year	6,690	(2.4)	6,530	(0.7)	6,486			1,063	(4.4)	1,016	5.3	1,071			7,753	(2.7)	7,546	0.1	7,556		
June - Feb	5,012	(2.9)	4,868	(0.6)	4,838	(0.1)	4,833	796	(6.1)	747	6.4	796	4.2	829	5,809	(3.3)	5,615	0.3	5,633	0.5	5,661

Gross Toll Revenue (in $1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$868	2.4	$889	7.0	$951	4.6	$995	$401	(0.3)	$400	13.1	$452	11.4	$504	$1,269	1.5	$1,289	8.9	$1,403	6.8	$1,499
July	893	0.1	894	4.8	938	7.1	1,004	409	(6.1)	384	11.0	426	15.9	494	1,302	(1.8)	1,278	6.7	1,364	9.8	1,498
August	889	1.5	902	6.9	964	7.4	1,036	400	7.2	429	10.1	473	9.6	518	1,289	3.3	1,331	7.9	1,437	8.2	1,554
September	855	3.4	883	5.4	931	6.4	991	387	8.3	419	3.5	434	3.1	447	1,241	4.9	1,302	4.8	1,364	5.4	1,438
October	895	1.9	912	5.2	960	6.5	1,023	442	(8.2)	405	9.8	445	16.4	518	1,336	(1.4)	1,318	6.7	1,405	9.7	1,541
November	811	4.4	847	5.3	892	4.8	934	358	(4.8)	341	14.1	389	6.4	414	1,170	1.6	1,188	7.9	1,281	5.3	1,349
December	832	1.6	845	4.1	879	7.0	941	342	(11.2)	304	12.3	341	15.0	392	1,174	(2.2)	1,149	6.2	1,220	9.3	1,334
January	747	5.4	787	5.3	829	7.1	888	329	(3.5)	317	17.6	373	12.6	420	1,075	2.7	1,104	8.9	1,202	8.8	1,308
February	766	0.1	767	4.9	804	8.3	871	314	(0.1)	314	12.7	354	10.9	392	1,081	0.0	1,081	7.2	1,158	9.1	1,264
March	866	2.1	884	5.8	935			378	3.0	389	6.5	414			1,243	2.4	1,273	6.1	1,350		
April	848	7.6	913	3.6	946			396	2.8	407	9.5	446			1,244	6.1	1,320	5.4	1,392		
May	912	5.6	962	6.4	1,024			413	8.2	447	10.4	493			1,325	6.4	1,409	7.7	1,518		
Total Year	$10,182	3.0	$10,486	5.4	$11,054			$4,569	(0.3)	$4,556	10.6	$5,041			$14,750	2.0	$15,042	7.0	$16,095		
June - Feb	$7,556	2.3	$7,726	5.5	$8,148	6.6	$8,683	$3,382	(2.0)	$3,313	11.3	$3,687	11.2	$4,101	$10,938	0.9	$11,040	7.2	$11,835	8.0	$12,784

NOTES:
(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.
(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.

Table 8

Northeast Extension Barrier Plazas - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	448	(6.9)	417	0.7	420	(0.7)	417	100	0.4	101	3.3	104	3.5	108	548	(5.5)	518	1.2	524	0.1	525
July	554	(6.4)	519	(4.8)	494	(1.2)	488	102	(2.3)	100	0.9	101	8.6	109	657	(5.8)	619	(3.8)	595	0.5	598
August	562	(10.6)	502	(4.2)	481	10.3	530	102	3.8	106	0.8	107	13.0	121	664	(8.4)	608	(3.4)	588	10.8	651
September	427	(7.3)	396	(1.6)	390	(0.1)	389	97	0.4	97	(1.4)	96	4.8	100	524	(5.9)	493	(1.6)	486	0.9	490
October	452	(11.9)	398	(4.6)	380	4.4	397	101	(8.2)	93	3.8	97	14.8	111	553	(11.2)	491	(3.0)	476	6.5	507
November	406	(7.4)	376	(3.3)	364	1.0	367	86	3.7	89	1.3	91	6.0	96	492	(5.5)	466	(2.4)	454	2.0	463
December	369	(10.9)	329	(1.6)	323	2.3	331	83	(0.5)	83	(0.0)	83	4.9	87	452	(9.0)	411	(1.3)	406	2.8	417
January	288	(3.9)	277	(6.9)	258	(0.2)	257	77	5.6	81	7.9	88	3.5	91	365	(1.9)	358	(3.5)	345	0.8	348
February	286	(6.8)	267	(4.0)	256	2.3	262	76	1.2	77	4.8	80	2.0	82	362	(5.1)	344	(2.0)	337	2.2	344
March	351	(15.4)	297	2.9	305			86	1.0	87	1.5	89			438	(12.2)	384	2.6	394		
April	361	4.2	376	(10.2)	338			89	0.3	90	1.3	91			451	3.4	466	(8.0)	429		
May	433	5.0	454	(11.9)	400			99	14.1	113	(5.3)	107			531	6.7	567	(10.6)	507		
Total Year	4,937	(6.7)	4,608	(4.3)	4,409			1,100	1.5	1,117	1.4	1,132			6,037	(5.2)	5,724	(3.2)	5,540		
June - Feb	3,792	(8.2)	3,480	(3.3)	3,365	2.2	3,439	825	0.2	827	2.2	846	7.0	905	4,617	(6.7)	4,307	(2.2)	4,211	3.1	4,343

Gross Toll Revenue (in $1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$403	(2.8)	$392	5.5	$413	9.4	$452	$439	8.6	$477	6.3	$506	19.7	$607	$842	3.1	$868	5.9	$920	15.1	$1,058
July	500	(1.1)	494	1.2	500	4.7	524	436	5.9	462	4.8	484	22.9	595	936	2.1	956	3.0	984	13.7	1,119
August	509	(6.4)	477	0.5	479	21.7	583	438	13.2	495	4.1	516	29.2	666	947	2.7	972	2.4	995	25.6	1,250
September	380	(2.9)	370	3.8	384	13.4	435	422	8.3	457	1.1	462	22.3	566	803	3.0	827	2.3	846	18.3	1,001
October	400	(12.4)	351	6.0	371	14.1	424	445	(3.3)	430	10.6	476	33.7	636	845	(7.6)	781	8.5	847	25.1	1,060
November	357	2.7	366	(3.7)	353	11.1	392	383	10.3	422	7.5	454	26.3	574	740	6.7	789	2.3	807	19.7	965
December	358	(19.8)	287	8.8	312	9.4	342	377	3.4	390	6.9	417	25.6	524	735	(7.9)	677	7.7	729	18.7	866
January	262	5.6	276	(9.8)	249	21.1	302	369	11.1	410	9.8	450	28.3	578	631	8.8	686	1.9	699	25.7	879
February	280	(7.1)	260	(4.7)	248	23.5	306	370	4.5	387	7.0	414	26.9	525	650	(0.5)	647	2.3	661	25.7	831
March	326	(11.3)	290	2.7	297			417	7.2	447	2.2	457			743	(0.9)	736	2.4	754		
April	337	10.9	374	(10.0)	336			435	3.3	449	4.3	468			772	6.6	823	(2.2)	805		
May	408	11.0	452	(6.6)	422			471	17.7	554	11.9	620			878	14.6	1,006	3.6	1,042		
Total Year	$4,520	(2.9)	$4,388	(0.5)	$4,366			$5,003	7.6	$5,381	6.4	$5,724			$9,522	2.6	$9,769	3.3	$10,090		
June - Feb	$3,448	(5.1)	$3,272	1.1	$3,310	13.6	$3,759	$3,680	6.8	$3,931	6.3	$4,180	26.1	$5,270	$7,129	1.0	$7,203	4.0	$7,489	20.6	$9,029

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.

(3) AET conversion occurred in April 2018.

(4) Vehicle classification changes were implemented at the time of AET conversion in April 2018.

Table 9

Turnpike I-376 - Beaver Valley Expressway - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	574	(2.1)	562	5.4	592	4.8	621	108	3.3	111	12.9	126	1.4	127	682	(1.2)	673	6.6	718	4.2	748
July	610	(3.7)	588	1.0	593	8.4	643	113	(8.4)	104	10.1	114	12.8	129	723	(4.5)	691	2.3	707	9.1	771
August	601	(3.6)	579	4.2	604	12.1	677	110	2.7	113	12.1	127	11.5	142	711	(2.6)	693	5.5	730	12.0	818
September	565	(2.7)	550	6.0	583	6.2	619	109	(4.6)	104	13.5	118	2.7	122	675	(3.0)	654	7.2	702	5.6	741
October	577	(4.1)	553	4.3	577	13.7	657	117	(10.5)	105	15.1	120	16.0	140	694	(5.2)	658	6.0	698	14.1	796
November	529	(3.6)	509	6.2	541	9.2	591	98	(3.2)	95	10.4	105	6.6	112	627	(3.6)	605	6.9	646	8.8	703
December	539	(7.8)	497	7.4	534	9.1	582	93	(13.8)	80	13.5	91	8.2	99	632	(8.7)	577	8.3	625	9.0	681
January	455	(1.2)	450	6.3	478	8.5	519	82	(2.0)	80	12.9	90	11.5	101	537	(1.3)	530	7.3	569	9.0	620
February	446	(3.2)	432	7.7	465	9.3	508	81	(3.7)	78	16.4	91	4.2	95	527	(3.3)	510	9.0	556	8.4	603
March	519	(4.0)	499	10.6	552			99	(7.4)	92	15.3	106			619	(4.5)	591	11.4	658		
April	513	(0.5)	511	11.2	568			102	(8.6)	93	23.0	115			616	(1.9)	604	13.0	683		
May	547	1.6	556	12.2	623			107	1.3	108	21.4	132			654	1.5	664	13.7	755		
Total Year	6,476	(2.9)	6,286	6.8	6,711			1,220	(4.6)	1,164	14.7	1,335			7,696	(3.2)	7,450	8.0	8,046		
June - Feb	4,896	(3.6)	4,721	5.2	4,968	9.0	5,416	911	(4.5)	870	12.9	982	8.4	1,065	5,808	(3.7)	5,591	6.4	5,950	8.9	6,481

Gross Toll Revenue (in $1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$732	4.3	$764	0.9	$771	9.8	$847	$342	11.3	$381	(3.1)	$369	1.6	$375	$1,074	6.6	$1,144	(0.4)	$1,140	7.2	$1,221
July	783	3.4	810	(3.7)	780	12.2	875	364	(4.7)	347	(4.4)	332	12.3	373	1,148	0.9	1,157	(3.9)	1,112	12.3	1,248
August	773	0.9	780	0.9	787	18.7	935	348	9.7	381	(4.1)	366	13.5	415	1,121	3.6	1,162	(0.7)	1,153	17.1	1,350
September	716	3.0	738	1.4	748	15.0	861	351	0.3	352	(0.7)	349	2.3	357	1,067	2.1	1,090	0.7	1,098	11.0	1,218
October	729	2.1	744	0.6	749	19.2	892	380	(8.4)	348	(1.9)	341	20.1	410	1,109	(1.5)	1,092	(0.2)	1,090	19.5	1,302
November	668	1.3	677	2.7	695	15.5	803	319	(0.7)	317	(4.0)	304	7.1	326	987	0.6	994	0.5	999	13.0	1,129
December	675	(1.8)	663	3.0	683	14.8	784	302	(10.7)	270	(0.7)	268	6.8	286	977	(4.6)	933	1.9	951	12.6	1,070
January	606	2.2	619	3.7	642	18.9	763	283	0.8	286	(6.7)	266	15.4	307	889	1.7	905	0.4	908	17.9	1,071
February	591	2.2	604	3.1	623	21.2	755	282	(1.0)	279	(0.2)	278	8.6	302	873	1.1	883	2.1	901	17.3	1,057
March	688	1.8	700	6.8	748			343	(3.7)	331	(2.1)	324			1,031	(0.0)	1,031	3.9	1,071		
April	680	5.3	717	9.0	781			346	(4.3)	332	4.0	345			1,027	2.1	1,048	7.4	1,126		
May	739	(7.1)	687	21.9	837			365	(12.0)	321	21.1	389			1,104	(8.7)	1,008	21.7	1,226		
Total Year	$8,382	1.5	$8,504	4.0	$8,845			$4,026	(2.0)	$3,943	(0.3)	$3,931			$12,408	0.3	$12,447	2.6	$12,776		
June - Feb	$6,275	2.0	$6,400	1.2	$6,479	16.0	$7,516	$2,971	(0.4)	$2,960	(2.9)	$2,874	9.6	$3,151	$9,246	1.2	$9,360	(0.1)	$9,352	14.1	$10,667

NOTES:
(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.
(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.
(3) AET conversion occurred in May 2017.

Table 10

Turnpike I-576 - Southern Beltway - Findlay Connector - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	155	(2.9)	151	4.1	157	(11.0)	140	20	(6.2)	19	(2.3)	19	16.5	22	175	(3.3)	170	3.4	175	(8.1)	161
July	163	(0.5)	162	(2.7)	158	(11.2)	140	19	(5.6)	18	11.0	20	8.8	22	182	(1.1)	180	(1.3)	178	(8.9)	162
August	158	5.9	168	2.6	172	(19.3)	139	20	(0.3)	20	15.2	23	28.8	30	179	5.2	188	4.0	196	(13.6)	169
September	147	2.6	151	2.1	154	(19.3)	124	21	(15.0)	18	23.0	22	37.1	31	168	0.4	169	4.3	176	(12.2)	155
October	154	0.4	154	6.5	164	(15.5)	139	23	2.2	24	(8.0)	22	17.2	25	177	0.6	178	4.6	186	(11.7)	164
November	141	4.7	147	0.2	148	(13.4)	128	21	(7.2)	19	0.7	19	21.8	23	161	3.2	166	0.2	167	(9.4)	151
December	143	(0.8)	142	(1.3)	140	(11.5)	124	20	(4.1)	19	(13.6)	17	31.7	22	163	(1.2)	161	(2.7)	157	(6.9)	146
January	124	5.8	131	(0.2)	131	(9.7)	118	16	21.8	20	(18.6)	16	38.6	22	140	7.7	151	(2.6)	147	(4.4)	141
February	122	1.8	124	(2.3)	122	(5.8)	115	15	(1.0)	15	8.1	16	37.2	22	137	1.5	139	(1.2)	138	(0.7)	137
March	143	2.3	146	(2.3)	143			17	2.4	18	11.2	20			160	2.3	164	(0.8)	163		
April	138	3.9	143	(2.1)	140			17	5.5	18	15.1	20			155	4.1	161	(0.2)	161		
May	147	6.8	157	(4.0)	151			21	(9.9)	19	33.8	25			168	4.8	176	(0.0)	176		
Total Year	1,735	2.4	1,777	0.1	1,779			231	(2.0)	227	5.7	240			1,966	1.9	2,004	0.8	2,019		
June - Feb	1,307	1.8	1,330	1.1	1,345	(13.3)	1,166	177	(2.3)	172	1.2	175	26.0	220	1,483	1.3	1,502	1.1	1,519	(8.8)	1,386

Gross Toll Revenue (in $1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June	$106	2.2	$108	1.9	$110	42.4	$157	$45	(7.0)	$42	(1.7)	$42	35.5	$56	$151	(0.6)	$150	0.9	$152	40.5	$213
July	120	(1.6)	118	(2.8)	114	41.3	162	47	(12.8)	41	8.0	44	29.2	57	167	(4.8)	159	0.0	159	38.0	219
August	114	2.7	117	4.6	123	36.9	168	47	(5.4)	45	13.4	51	57.3	79	161	0.3	162	7.0	173	42.8	247
September	103	2.6	106	1.9	108	36.4	147	48	(15.4)	41	19.3	48	70.1	82	151	(3.1)	147	6.7	156	46.8	230
October	108	(0.7)	108	8.1	116	40.6	164	50	(1.6)	49	(2.3)	48	41.6	68	159	(1.0)	157	4.8	165	40.9	232
November	99	3.5	103	0.5	103	43.8	148	45	(6.2)	42	1.6	43	42.8	61	144	0.5	145	0.8	146	43.5	209
December	96	6.3	102	(0.8)	101	43.3	145	43	5.4	45	(16.1)	38	52.3	57	138	6.0	147	(5.5)	139	45.8	202
January	85	8.0	92	(1.8)	91	62.4	147	38	24.6	47	(21.1)	37	64.5	61	123	13.1	139	(8.3)	128	63.0	208
February	95	(8.7)	87	(2.3)	85	70.1	144	37	(7.1)	35	5.5	36	72.9	63	132	(8.2)	122	(0.1)	121	70.9	208
March	99	2.9	101	(0.7)	101			39	5.1	41	6.8	44			138	3.5	142	1.4	144		
April	97	4.4	101	(3.2)	98			39	5.5	41	11.9	46			136	4.7	142	1.1	144		
May	103	6.6	110	(3.7)	106			45	(7.4)	42	27.3	54			148	2.3	152	4.9	159		
Total Year	$1,225	2.2	$1,253	0.2	$1,255			$523	(2.5)	$510	3.9	$530			$1,748	0.8	$1,763	1.3	$1,785		
June - Feb	$927	1.5	$940	1.2	$951	45.3	$1,382	$400	(3.5)	$386	0.2	$387	51.4	$586	$1,327	(0.0)	$1,327	0.9	$1,338	47.1	$1,968

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.

(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.

(3) AET conversion occurred in June 2018.

(4) Vehicle classification changes were implemented at the time of AET conversion in June 2018.

(5) The I-576 tolling configuration was changed from six ramp tolls to two mainline toll gantries at the time of AET conversion in June 2018.

Table 11

Delaware River Bridge - Monthly Transaction and Gross Toll Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June			606	(0.8)	601	7.3	645			103	0.8	104	10.1	115			709	(0.6)	705	7.7	760
July			647	(1.6)	637	4.3	664			97	1.6	98	14.5	113			744	(1.2)	735	5.7	777
August			657	(1.1)	650	6.0	689			103	5.8	109	10.6	120			760	(0.2)	759	6.7	810
September			573	0.6	577	6.6	616			99	1.8	101	5.5	106			672	0.8	678	6.5	722
October			583	0.0	583	20.1	700			97	11.2	108	17.5	127			680	1.6	691	19.7	827
November			570	(1.3)	563	24.1	699			98	5.5	103	13.1	117			668	(0.3)	666	22.4	815
December			555	(2.1)	543	32.6	720			96	0.5	96	14.1	110			651	(1.7)	639	29.8	830
January	436	(24.4)	330	41.7	467	31.0	612	81	(26.6)	59	62.1	96	20.0	115	517	(24.8)	389	44.8	563	29.1	727
February	463	(100.0)	0	N/A	446	31.4	586	84	(100.0)	0	N/A	90	16.1	104	548	(100.0)	0	N/A	535	28.8	690
March	532	(39.8)	320	62.3	519			95	(34.1)	63	62.5	102			627	(39.0)	383	62.3	621		
April	541	0.8	545	2.8	561			95	(4.5)	91	14.4	104			636	(0.0)	636	4.5	665		
May	589	(2.0)	577	6.0	611			97	6.5	103	12.3	115			685	(0.8)	679	6.9	727		
Total Year	2,561		5,963		6,758			452		1,008		1,227			3,012		6,971		7,984		
June - Feb			4,522	12.1	5,067	17.0	5,930			752	20.4	905	13.4	1,027			5,273	13.2	5,972	16.5	6,957

Gross Toll Revenue (in $1,000s)

	Passenger Cars							Commercial Vehicles							Total Vehicles						
Month	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19	2015-16	% Chg	2016-17	% Chg	2017-18	% Chg	2018-19
June			$3,150	(1.6)	$3,098	6.2	$3,291			$1,845	1.9	$1,879	8.7	$2,043			$4,995	(0.3)	$4,978	7.2	$5,334
July			3,380	(3.5)	3,260	3.7	3,381			1,753	0.8	1,767	13.0	1,998			5,133	(2.0)	5,027	7.0	5,379
August			3,337	0.0	3,337	6.6	3,557			1,830	6.7	1,952	10.1	2,149			5,166	2.4	5,289	7.9	5,706
September			3,038	(1.3)	3,000	5.5	3,165			1,797	1.9	1,831	4.7	1,916			4,835	(0.1)	4,831	5.2	5,081
October			2,985	(0.8)	2,962	20.2	3,560			1,758	10.3	1,938	17.4	2,275			4,742	3.3	4,900	19.1	5,835
November			2,915	(4.5)	2,783	28.5	3,577			1,761	3.4	1,821	14.0	2,076			4,677	(1.5)	4,604	22.8	5,653
December			2,872	(1.6)	2,827	28.4	3,631			1,743	0.6	1,754	12.2	1,968			4,615	(0.7)	4,581	22.2	5,599
January	2,167	(18.7)	1,762	39.6	2,461	33.8	3,293	1,430	(25.1)	1,071	60.5	1,720	25.5	2,159	3,596	(21.2)	2,834	47.5	4,181	30.4	5,452
February	2,340	(100.3)	-7	N/A	2,265	39.7	3,164	1,503	(99.9)	1	N/A	1,621	21.4	1,967	3,843	(100.2)	-6	N/A	3,886	32.1	5,131
March	2,713	(41.4)	1,591	65.9	2,639			1,702	(34.6)	1,112	64.1	1,825			4,415	(38.8)	2,703	65.2	4,464		
April	2,813	(1.3)	2,775	3.7	2,879			1,738	(5.5)	1,642	13.2	1,858			4,551	(2.9)	4,418	7.2	4,737		
May	2,989	(2.0)	2,929	6.0	3,104			1,721	6.3	1,829	12.0	2,049			4,711	1.0	4,758	8.3	5,154		
Total Year	$13,021		$30,727		$34,615			$8,094		$18,142		$22,016			$21,115		$48,869		$56,631		
June - Feb			$23,432	10.9	$25,993	17.8	$30,619			$13,559	20.1	$16,283	13.9	$18,551			$36,991	14.3	$42,276	16.3	$49,170

NOTES:
(1) Toll increases occur every year with exceptions. Refer to Table 1 for details.
(2) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(3) The Delaware River Bridge toll plaza was converted from part of the Ticket System to a one-way barrier AET facility in January 2016.

- Table 9 - Turnpike I-376 (Beaver Valley Expressway);
- Table 10 - Turnpike I-576 (Southern Beltway – Findlay Connector) and;
- Table 11 - Delaware River Bridge.

The information is provided by passenger cars, commercial vehicles, and total vehicles. For comparative purposes, subtotals are provided for June through February for each fiscal year. It should be noted that the Delaware River Bridge (DRB) was converted to a westbound only cashless tolling system in January 2016. Prior to that time, DRB traffic and revenue data were included in the Ticket System. All DRB traffic and revenue data are now shown separately.

As shown in Table 3, Systemwide gross toll revenue increased by 8.1 percent in FY 2016-17, and 7.9 percent in FY 2017-18. Year to date (June 2018 through February 2019) toll revenue growth was 10.4 percent compared to the same period in the prior year. Commercial vehicle toll revenue increased by 13.8 percent and passenger car toll revenue increased by 7.8 percent from June 2018 through February 2019 compared to the same time period in the prior year. These increases in toll revenue were largely due to annual toll increases. Year-to-date transactions grew by 0.1 percent, 3.3 percent, and 0.6 percent for passenger cars, commercial vehicles, and total vehicles, respectively.

It should be noted that the DRB was closed on January 20, 2017 due to a fracture in one of the structural support beams. The structure was closed to all traffic through March 9, 2017. This event negatively impacted the traffic and revenue values for FY 2016-17. CDM Smith analyzed the impact on Turnpike traffic and revenue during the closure and estimated that losses over this period amounted to 1.8 million transactions and $12.1 million in toll revenue. Thus, absent the DRB closure, the total FY 2016-17 Turnpike traffic would have increased by 1.7 percent (instead of 0.8 percent) compared to the previous year. Total toll revenue would have increased by 9.3 percent (instead of 8.1 percent) compared to the previous year.

As previously mentioned, the Ticket System is by far the largest component of both traffic and toll revenue on the Turnpike System. As shown in Table 4, total year-to-date transactions decreased 0.8 percent compared to the same period in the prior year. Year-to-date Passenger car transactions decreased by 1.2 percent during this period. Year-to-date Commercial vehicle activity has been more stable during this period, with traffic increasing 2.0 percent compared to the previous nine-month period. Total revenue for the Ticket System grew by 5.7 percent in FY 2016-17 and by 7.7 percent in FY 2017-18. Year-to-date FY 2018-19 revenue has grown by 9.9 percent compared to the same time frame in the previous year. The above mentioned DRB closure would also have negatively affected Ticket System traffic and revenue in January, February, and March 2017.

The combined Barrier Facilities monthly transaction and revenue data is shown in Table 5. Year-to-date transactions increased 5.4 percent in 2018-19 compared to the same period in the previous year. Commercial vehicle transactions increased 8.0 percent for this time period, while passenger cars grew at 4.9 percent. Total revenue for the combined Barrier Facilities grew 14.7 percent overall year-to-date. Growth in toll revenue at the barrier facilities has outpaced transaction growth due to higher commercial vehicle growth and vehicle classifications adjustments (upon AET conversion) at some facilities. These vehicle classification changes, combined with stronger economic conditions and low fuel prices, likely account for much of the recent revenue growth on these barrier facilities. When such conversions occur, there is a significant increase in video transactions, which also has the effect of increasing the average toll rates.

Traffic and gross toll revenue trends for the six barrier toll facilities are provided in Tables 6 through 11. These six barrier facilities (Turnpikes 43 and 66, the Northeast Extension barrier plazas, Turnpikes I-376 and I-576, and the Delaware River Bridge) contribute about 10 percent of the total Systemwide gross toll revenue.

The effects of ramp-up, inclement weather, alternative routes, and new developments have a more significant impact on these relatively low volume roads. Traffic growth has been positive on most of these barrier facilities thus far in FY 2018-19, countering long term trends. Revenue growth especially has grown, partially due to vehicle classification changes on the Northeast Extension and Findlay Connector Barrier Facilities, combined with the above mentioned AET conversions.

Actual and Assumed Toll Rate Increases

Annual toll rate increases are assumed to occur on the entire Turnpike System. The toll rate increases are assumed to occur at 12:01 AM on first Sunday after January 1 of each year. Rate increase assumptions are unchanged since the 2018 Forecast Study. **Table 12** presents the annual percent increases in toll rates for E-ZPass and cash/video from calendar year 2018 through 2049.

Actual and Assumed E-ZPass Penetration Rates

Table 13 presents the actual and assumed annual E-ZPass penetration rates from calendar year 2016 through 2049. The first three columns show the E-ZPass market share assumptions for the current 2019 Bring Down Letter. These were adjusted slightly on a facility by facility basis, by the amount shown in the three rightmost columns, over assumptions used in the 2018 Forecast Study. Actual experience over the last 12 months has shown that the E-ZPass market share has decreased when compared to the last study in certain cases, most notably for those facilities that have converted to AET.

Table 12
Actual and Assumed Percent Changes in Toll Rates
Pennsylvania Turnpike System

Calendar Year	Percent Changes in Turnpike System's Toll Rates (1)	
	E-ZPass	Cash
2018	6.00	6.00
2019	6.00	6.00
2020	6.00	6.00
2021	5.00	5.00
2022	5.00	5.00
2023	5.00	5.00
2024	5.00	5.00
2025	5.00	5.00
2026	4.00	4.00
2027	3.50	3.50
2028	3.00	3.00
2029	3.00	3.00
2030	3.00	3.00
2031	3.00	3.00
2032	3.00	3.00
2033	3.00	3.00
2034	3.00	3.00
2035	3.00	3.00
2036	3.00	3.00
2037	3.00	3.00
2038	3.00	3.00
2039	3.00	3.00
2040	3.00	3.00
2041	3.00	3.00
2042	3.00	3.00
2043	3.00	3.00
2044	3.00	3.00
2045	3.00	3.00
2046	3.00	3.00
2047	3.00	3.00
2048	3.00	3.00
2049	3.00	3.00

(1) Toll rate increases are the same for all facilities and vehicle classes.

Note:
The toll rate increases in this 2019 Bring Down Letter are actual through 2019.

Table 13
Actual and Assumed Percent E-ZPass Penetration
Pennsylvania Turnpike System

	E-ZPass Penetration Rates					
Calendar	2019 Bring Down Letter			Difference from 2018 Forecast Study		
Year	Cars	Trucks	Total	Cars	Trucks	Total
2016	76.2	89.2	78.0	0.0	0.0	0.0
2017	78.3	90.1	79.9	0.0	0.0	0.0
2018	80.0	90.6	81.5	-0.5	-0.6	-0.5
2019	81.5	91.0	82.9	-0.4	-0.8	-0.4
2020	82.9	91.5	84.1	-0.3	-1.1	-0.4
2021	83.9	92.0	85.1	-0.3	-1.2	-0.4
2022	85.2	92.6	86.3	0.9	-1.0	0.7
2023	86.0	93.1	87.1	1.0	-1.0	0.8
2024	86.8	93.6	87.8	1.1	-1.0	0.9
2025	87.3	93.7	88.3	1.2	-1.1	0.9
2026	87.9	93.8	88.8	1.2	-1.1	0.9
2027	88.3	93.8	89.2	1.1	-1.0	0.9
2028	88.8	93.9	89.5	1.1	-1.0	0.8
2029	89.2	93.9	89.9	1.1	-1.0	0.8
2030	89.6	94.0	90.3	1.1	-1.0	0.8
2031	90.0	94.0	90.6	1.1	-1.0	0.8
2032	90.1	94.0	90.7	1.1	-0.9	0.8
2033	90.1	94.1	90.7	1.0	-0.9	0.8
2034	90.2	94.1	90.8	1.0	-0.9	0.8
2035	90.3	94.2	90.9	1.0	-0.9	0.7
2036	90.3	94.2	90.9	1.0	-0.8	0.7
2037	90.3	94.2	90.9	1.0	-0.8	0.7
2038	90.4	94.3	91.0	0.9	-0.8	0.7
2039	90.4	94.3	91.0	0.9	-0.7	0.7
2040	90.4	94.3	91.0	0.9	-0.7	0.7
2041	90.4	94.4	91.0	0.9	-0.7	0.7
2042	90.4	94.4	91.0	0.9	-0.6	0.7
2043	90.4	94.4	91.1	0.9	-0.6	0.7
2044	90.4	94.4	91.1	0.9	-0.6	0.7
2045	90.5	94.5	91.1	0.8	-0.6	0.7
2046	90.5	94.5	91.1	0.8	-0.5	0.6
2047	90.5	94.5	91.1	0.8	-0.5	0.6
2048	90.5	94.5	91.1	0.8	-0.5	0.6
2049	90.5	94.5	91.1			

Note: The E-ZPass penetration rates for this 2019 Bring Down Letter are actual through 2018 and were actual only through 2017 for the 2018 Forecast Study.

The revised total E-ZPass penetration rates range from 0.5 percentage points lower to 0.9 percentage points higher than those in the 2018 Forecast Study. The downward adjustment to the commercial vehicle rates is largely due to actual observed experience due to AET conversion on barrier facilities. In the twelve months of new data since the 2018 Forecast Study, it can be observed that although E-ZPass transactions are generally growing, video transactions grew at a higher rate and have pushed the E-ZPass percentage downward.

Summary of Changes in Future Year Estimates for U.S. Gross Domestic Product and Pennsylvania Gross State Product

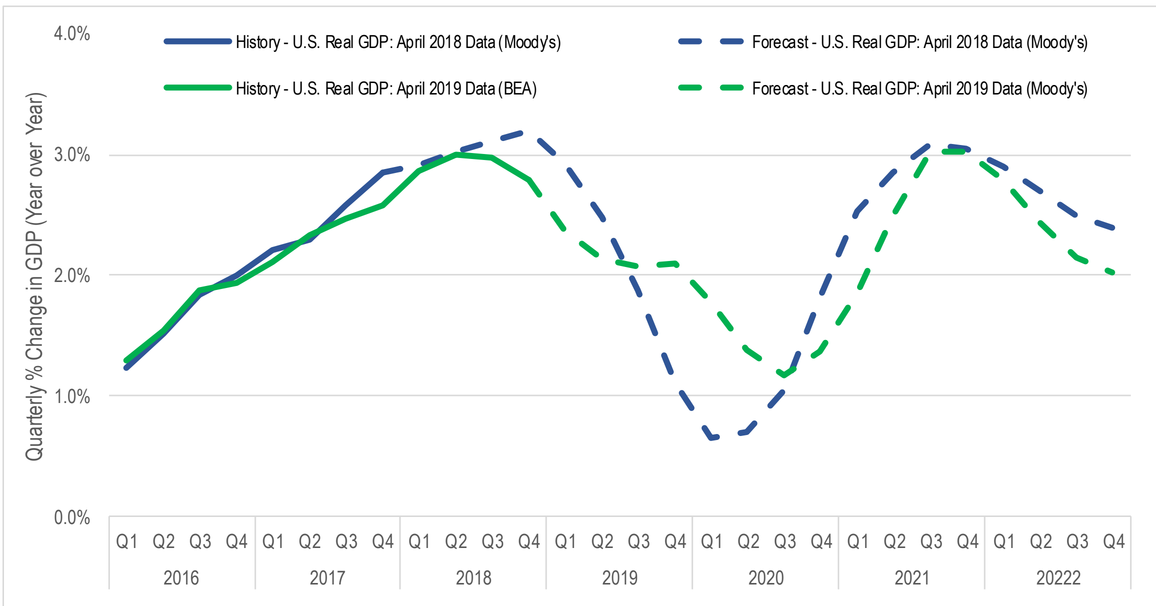
This section presents a comparison of the Gross Domestic Product (GDP) and Gross State Product (GSP) information available for the 2018 Forecast Study with updated forecasts for both measures from Moody's Analytics. This information was a key input in developing estimated growth forecasts for the Turnpike System.

Figure 3 shows actual and estimated GDP at the time of the 2018 Forecast Study as well as the revised figures based on updated Moody's Analytic's forecasts as of March 2019. As shown, actual experience in the second half of 2018 underperformed prior estimates by between about 0.1 to 0.4 percent (though GDP growth remained positive throughout the period). The revised GDP growth estimates in 2019 show a lower growth than the prior forecast for the first half of 2019, but higher growth in the latter half of the year and for most of 2020. Beginning in the fourth quarter of 2020, the revised GDP estimates are less than the prior forecast.

Figure 4 shows GSP trend and forecast data for Pennsylvania. The GSP growth at the end of 2017 and throughout 2018 was lower than the prior estimates by a range of 1.0 to 1.5 percent. The GSP growth estimates for 2019 and 2020 are estimated to be higher than the previous estimates by a range of 0.0 to 1.1 percent. By the fourth quarter of 2020, the March 2019 GSP forecast falls below the April 2018 forecast until at least the end of 2022.

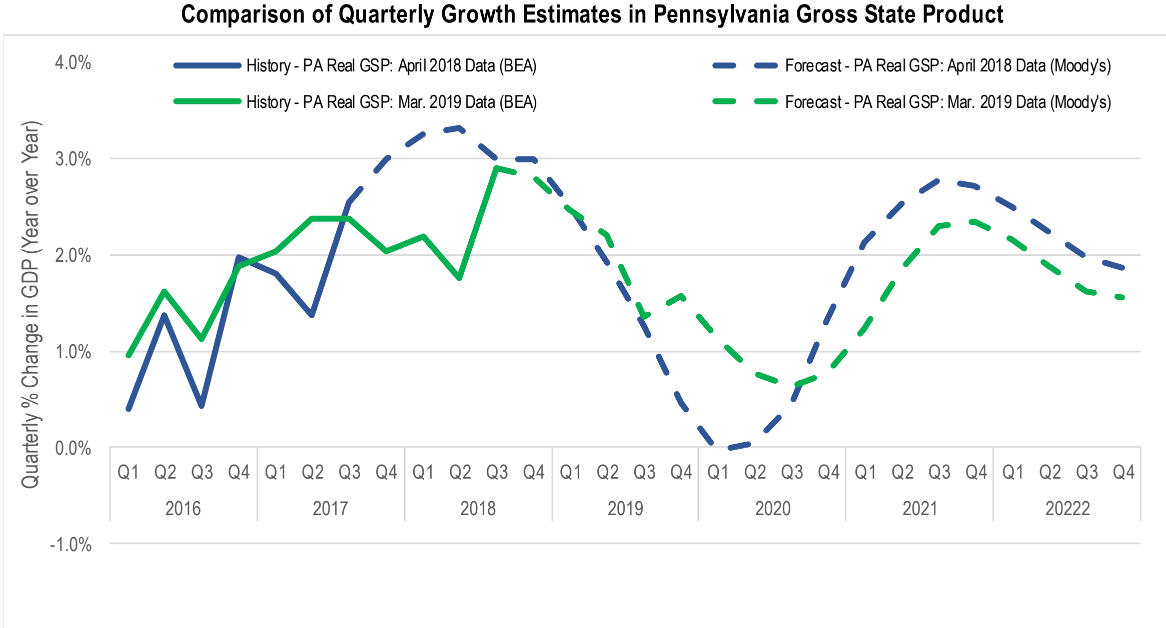
Based on this information alone it would be assumed that actual traffic growth in 2018 would have underperformed CDM Smith's 2018 Forecast Study estimates. As will be discussed below, that was not the case across all the facilities. In fact, actual traffic and toll revenue on the total System slightly outperformed CDM Smith's estimates. This is likely due to other factors, namely motor fuel prices and consumer confidence which are discussed in the next section. The above mentioned AET conversions have also positively affected recent growth trends.

Figure 3
Comparison of Quarterly Growth Estimates in U.S. Gross Domestic Product



Sources: Historical estimates are from the BEA, and the forecasts are from Moody's Analytics (April 2018 and April 2019 Releases)

Figure 4
Comparison of Quarterly Growth Estimates in Pennsylvania Gross State Product



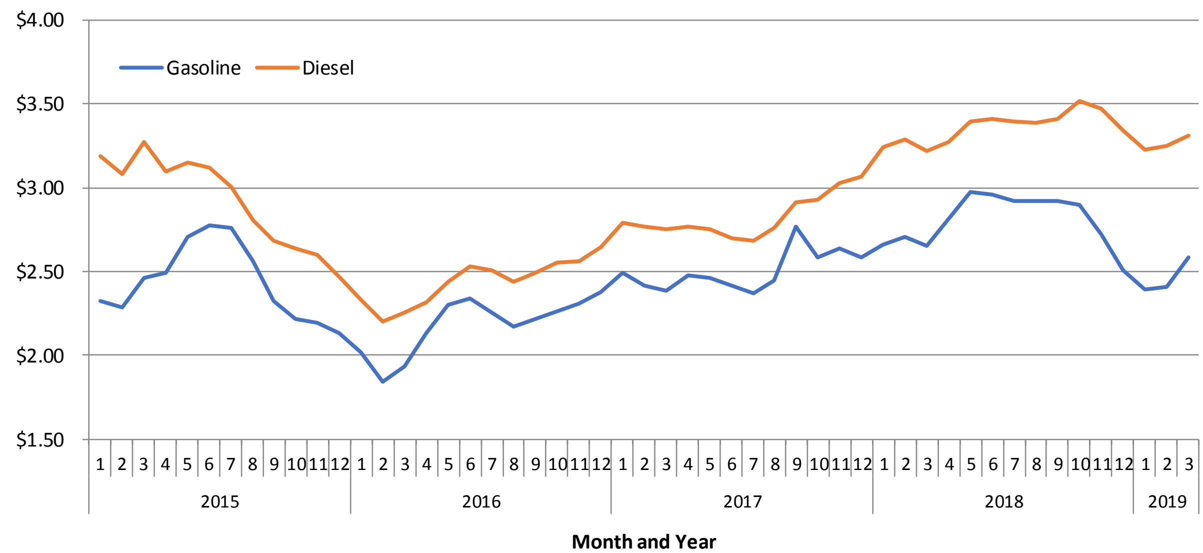
Sources: Historical estimates are from the BEA, and the forecasts are from Moody's Analytics (April 2018 and March 2019 Releases)

Summary of Trends in Fuel Prices

Figure 5 portrays gasoline and diesel prices for the Central Atlantic Region from January 2015 through March 2019. As shown, gasoline and diesel prices have followed generally similar trends throughout this period. The exception to this is the first six months of 2015, where gasoline prices rose approximately $0.40 per gallon while diesel prices remained relatively flat. Since that time, both prices have generally moved in tandem, decreasing over the last six months of 2015 and the the first few months of 2016, reaching a low of $1.85 per gallon for gasoline and $2.20 per gallon for diesel in February 2016. Prices for both increased slowly but steadily throughout 2016, 2017, and early 2018, reaching a high of $2.97 per gallon for gasoline in May 2018. Prices fluctuated within a narrow range for the remainder of 2018, with diesel reaching a high of $3.52 per gallon in October 2018. Prices of both gasoline and diesel fell throughout the winter of 2018-19, and have begun to increase again in the spring.

Motor fuel prices have remained relatively stable (and even declined in recent months) compared to price trends available at the time of the 2018 Forecast Study. This may have contributed to the recently observed strong growth on the Turnpike System, especially for commercial vehicles.

Figure 5
Fuel Prices in Central Atlantic Region ($ per Gallon)



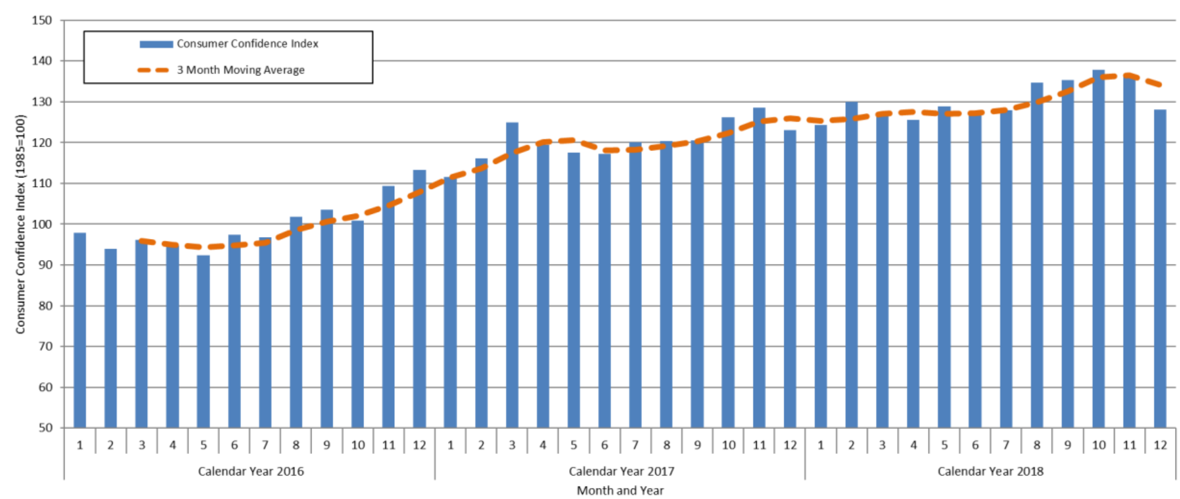
Source: U.S. Energy Information Administration, Release Date 4/8/2019
Note: Retail Prices in USD for Regular All Formulations Retail Gasoline and Number 2 Diesel

Consumer Confidence

Figure 6 shows the Conference Board Consumer Confidence Index for the period between January 2016 and December 2018. The individual blue bars show the index values for each month while the dotted line shows the three-month moving average. As shown, consumer confidence has trended up over the period shown. The average exceeded 99 in 2016, rose to approximately 120 in 2017, and surpassed 130 in 2018. The Consumer Confidence Index has been showing a steady upward trend since the beginning of 2016. By the end of 2016, consumer confidence rose to pre-recession levels for the first time since the 2008 recession, and has continued to grow since then. The most recent two months of November and December 2018 experienced a slight decrease from a high of 137.9 in October, which was the highest level of consumer confidence since September 2000.

Consumer confidence is an important measure in that it highlights consumer's confidence in making purchases, their willingness to travel more, etc. Thus, we can infer that higher consumer confidence spurs demand for various goods and services and that higher demand results in higher traffic on the roadways.

Figure 6
Conference Board Consumer Confidence Index



Committed Roadway Improvements

Table 14 lists major capacity-enhancing roadway improvements with dedicated funding on the Pennsylvania Turnpike system. Most of these projects are part of PTC's statewide total reconstruction initiative, which is a multi-year project to widen the mainline and the Northeast Extension to six lanes (three in each direction). On the Mainline I-76/I-276 this includes work throughout the Pittsburgh, Somerset, Harrisburg, and Philadelphia metro areas. More than 130 miles have been completed as of 2019, with more than 40 additional miles under construction or funded. In addition to roadway widening, Table 14 highlights two additional projects; one to link I-476 (Northeast Extension) to I-81 in the Scranton area and the other to extend Toll 576 (Southern Beltway) an additional 12.5 miles in the Pittsburgh area. These projects will serve to enhance capacity and create additional connections to other routes, both of which are expected to increase the number of travelers, and therefore revenue, on the Pennsylvania Turnpike system.

Actual Versus Estimated Traffic and Toll Revenue

Table 15 provides a comparison of actual traffic and toll revenue versus estimated traffic and toll revenue from CDM Smith's 2018 Forecast Study. The analysis period in this table is from March 2018 through February 2019. This twelve-month period corresponds to the period for which actual data currently exists but was estimated at the time of the 2018 Forecast Study.

Systemwide, actual passenger car transactions surpassed estimates by 0.9 percent, and passenger-car toll revenue exceeded estimates by 1.8 percent. Commercial vehicle transactions exceeded estimates by 3.7 percent, and actual commercial vehicle toll revenue was 7.9 percent greater than estimates. When all vehicles are considered, actual transactions were higher than estimates by 1.3 percent and toll revenue exceeded estimates by 4.4 percent. As mentioned earlier in this report, the AET conversions have had a larger than expected positive impact on commercial vehicle growth. This was especially true for the video component of traffic, which have higher toll rates and thus have the effect of increasing average commercial vehicle toll rates.

The same information is provided in Table 15 for each of the Turnpike toll facilities. Actual versus estimated traffic and toll revenue tracks quite closely for the Ticket System. Actual traffic and toll revenue for ticket system would have been even higher absent the negative impact of the DRB closure in January through March 2017.

All barrier facilities overperformed when compared to the 2018 Forecast Study forecasts. Barrier System toll revenue was higher than CDM Smith estimates by between 4.6 percent (Turnpike 66) and 29.2 percent (Turnpike I-576) for both passenger car and commercial revenue combined.

Table 14
Major Committed Roadway Improvements on the Pennsylvania Turnpike System (1)

Milepost	Location	Description	Actual or Assumed Start Date	Assumed Completion Date
Mainline I-76/I-276				
28-31	Alleghany and Butler Counties	Reconstruct and widen to 3 lanes in each direction	Early 2020	2022
40-44	Alleghany County	Replace 6 overhead bridges and widen to 6 lanes in each direction	February 2013	Fall 2019
49-67	Alleghany and Westmoreland Counties	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
102-109	Somerset County	Reconstruct and widen to 3 lanes in each direction	Early 2020	Late 2022
128-134	Somerset and Bedford Counties	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
149-155	Bedford County	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
180-186	Fulton and Huntingdon Counties	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
202-206	Cumberland County	Reconstruct and widen to 3 lanes in each direction	September 2016	May 2019
298-308	Berks and Chester Counties	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
308-312	Chester County	Reconstruct and widen to 3 lanes in each direction	Fall 2021	Fall 2023
312-316	Chester County	Reconstruct and widen to 3 lanes in each direction	Spring 2020	Late 2022
320-326	Chester and Montgomery Counties	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
Northeast Extension I-476				
A31-A38	Montgomery County	Reconstruct and widen to 3 lanes in each direction	Early 2018	Late 2020
A38-A44	Montgomery and Bucks Counties	Reconstruct and widen to 3 lanes in each direction	Spring 2021	Late 2023
	Lackawanna and Luzerne Counties	Link I-476 to I-81 with two interchanges to create a Scranton Beltway	2022	2026
Southern Beltway Toll 576				
US-22 to I-79	Washington and Allegheny Counties	Construct a 12.5-mile cashless tolling extension of Toll 576 from the southern terminus of the Findlay Connector at US-22 to I-79 including four new interchanges	December 2016	2022

(1) The roadway improvement projects shown in this table are a small subset of the projects listed in the PTC's Major Design and Construction Projects website and listed in the Proposed Twelve-Year Program

Table 15
Comparison of Estimated and Actual Traffic Volumes and Gross Toll Revenue
From March 2018 Through February 2019 (1)
Pennsylvania Turnpike System

	Total Traffic (in Thousands)			Total Gross Toll Revenue (in Thousands)		
Facility	Estimated	Actual	Actual as Percent of Estimated	Estimated	Actual	Actual as Percent of Estimated
			Passenger Cars			
Ticket and Gateway Barrier	133,870	132,899	(0.7)	$625,143	$630,328	0.8
Delaware River Bridge	6,845	7,621	11.3	35,386	39,241	10.9
Turnpike 43	11,866	12,463	5.0	19,296	20,693	7.2
Turnpike 66	6,377	6,480	1.6	11,255	11,588	3.0
Northeast Extension (Barrier)	4,257	4,482	5.3	4,248	4,816	13.4
Turnpike I-376	6,522	7,160	9.8	8,724	9,882	13.3
Turnpike I-576	1,481	1,600	8.0	1,334	1,686	26.4
Barrier Subtotal	37,347	39,806	6.6	80,244	87,906	9.5
Total System	171,217	172,706	0.9	$705,387	$718,234	1.8
			Commercial Vehicles			
Ticket and Gateway Barrier	22,381	22,911	2.4	$492,401	$530,370	7.7
Delaware River Bridge	1,220	1,348	10.5	22,238	24,284	9.2
Turnpike 43	1,027	1,089	6.0	4,767	5,254	10.2
Turnpike 66	1,037	1,104	6.5	5,033	5,454	8.4
Northeast Extension (Barrier)	1,126	1,191	5.7	5,900	6,815	15.5
Turnpike I-376	1,312	1,417	8.0	4,182	4,208	0.6
Turnpike I-576	195	285	46.2	534	729	36.4
Barrier Subtotal	5,917	6,433	8.7	42,655	46,744	9.6
Total System	28,297	29,344	3.7	$535,057	$577,114	7.9
			Total Vehicles			
Ticket and Gateway Barrier	156,250	155,810	(0.3)	$1,117,544	$1,160,697	3.9
Delaware River Bridge	8,065	8,969	11.2	57,625	63,525	10.2
Turnpike 43	12,892	13,552	5.1	24,063	25,947	7.8
Turnpike 66	7,413	7,584	2.3	16,288	17,043	4.6
Northeast Extension (Barrier)	5,384	5,673	5.4	10,148	11,630	14.6
Turnpike I-376	7,833	8,577	9.5	12,906	14,091	9.2
Turnpike I-576	1,676	1,885	12.5	1,869	2,415	29.2
Barrier Subtotal	43,264	46,239	6.9	122,899	134,650	9.6
Total System	199,514	202,050	1.3	$1,240,443	$1,295,348	4.4

(1) These 12 months correspond to the period for which actual data exists, but was estimated at the time of CDM Smith's 2018 Forecast Study.

(2) The assumed Findlay conversion date in the 2018 Forecast Study was the end of April 2018. Actual conversion ocurred in June 2018.

Despite actual tolled transaction and toll revenue values overperforming forecasted levels for all Barrier facilities, the total System forecast tracked relatively closely overall. This occurs because the vast majority of traffic and revenue is generated by the Ticket System. Several events occurred on the barrier plazas that influenced the high growth. These include AET conversion at the Northeast Extension Barrier Plazas, Beaver Valley, and the Findlay Connector. Also important was the Stage 1 opening of the I-95 interchange just west of the Delaware River Bridge. The impact of the Stage 1 completion was greater than that assumed in the 2018 Forecast Study. The recent trends for all facilities were considered when adjusting the short-term forecasts for this Bring Down Letter.

Estimated Traffic and Gross Toll Revenue

Updated traffic and gross toll revenue estimates were developed through FY 2048-49 incorporating the following changes into the forecast. All these changes were described in previous sections.

- Actual traffic and revenue experience through February 2019;
- Slightly adjusted short term (through 2022) growth forecasts based on the recent experience of actual traffic and revenue compared to assumptions in the 2018 Forecast Study;
- Revised estimates of E-ZPass penetration rates;
- AET conversion scheduled at AKH and Gateway for October 2019; and
- Slight decreases in long range normal growth rates for commercial vehicles from 2022 through the end of the forecast period.

Other assumptions remain unchanged from the 2018 Forecast Study including:

- Annual Systemwide toll rate increases;
- Structure of the commercial vehicle discount program; and
- Long range economic indicators.

Table 16 shows the total traffic and toll revenue for the Ticket System only. Data for FY 2016-17 and FY 2017-18 reflects a full year of actual experience and FY 2018-19 includes nine months of actual experience (through February 2019). Total toll transactions increase from 157.3 million to 194.3 million over the forecast period, an average annual increase of 0.7 percent. Gross toll revenue increases from $1,004.4 million to $4.2 billion by FY 2048-49. This amounts to an average annual increase of 4.6 percent, reflecting the impact of normal growth plus the annual rate adjustments.

Table 16

Ticket System: Estimated Annual Transactions and Gross Toll Revenue (1)

Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

		Annual Traffic			Annual Gross Toll Revenue		
Fiscal Year		Passenger Cars	Commercial Vehicles	Total Vehicles	Passenger Cars	Commercial Vehicles	Total Vehicles
2016-17	(2,3,5)	135,128	22,179	157,307	$564,915	$439,495	$1,004,410
2017-18	(2)	134,127	22,577	156,704	599,384	482,376	1,081,760
2018-19	(4,6)	132,360	22,922	155,282	637,137	538,213	1,175,351
2019-20		131,225	23,118	154,343	670,587	574,230	1,244,817
2020-21		130,693	23,366	154,059	706,891	612,168	1,319,059
2021-22		130,817	23,600	154,418	741,516	648,592	1,390,108
2022-23		131,600	23,821	155,421	782,660	686,348	1,469,009
2023-24		132,766	24,032	156,799	828,208	725,242	1,553,450
2024-25		134,006	24,253	158,258	876,748	766,780	1,643,529
2025-26		135,481	24,493	159,973	926,005	808,389	1,734,394
2026-27		137,046	24,729	161,775	970,726	845,590	1,816,316
2027-28		138,580	24,948	163,528	1,012,261	879,566	1,891,826
2028-29		140,079	25,195	165,274	1,051,564	913,952	1,965,516
2029-30		141,548	25,486	167,034	1,091,994	952,249	2,044,243
2030-31		142,985	25,777	168,762	1,133,951	992,005	2,125,956
2031-32		144,409	26,067	170,476	1,178,775	1,033,276	2,212,051
2032-33		145,818	26,357	172,175	1,226,573	1,076,117	2,302,690
2033-34		147,178	26,647	173,825	1,275,772	1,120,590	2,396,362
2034-35		148,498	26,937	175,435	1,326,473	1,166,769	2,493,242
2035-36		149,781	27,227	177,009	1,378,732	1,214,723	2,593,455
2036-37		151,042	27,512	178,554	1,432,743	1,264,246	2,696,989
2037-38		152,219	27,789	180,007	1,487,947	1,315,252	2,803,199
2038-39		153,355	28,065	181,420	1,544,774	1,368,202	2,912,976
2039-40		154,475	28,343	182,817	1,603,514	1,423,173	3,026,687
2040-41		155,573	28,621	184,194	1,664,171	1,480,250	3,144,421
2041-42		156,645	28,900	185,545	1,726,760	1,539,518	3,266,278
2042-43		157,685	29,180	186,865	1,791,242	1,601,062	3,392,304
2043-44		158,698	29,461	188,159	1,857,745	1,664,977	3,522,722
2044-45		159,686	29,743	189,428	1,926,333	1,731,349	3,657,683
2045-46		160,645	30,026	190,671	1,997,034	1,800,267	3,797,301
2046-47		161,591	30,310	191,902	2,070,076	1,871,837	3,941,913
2047-48		162,525	30,596	193,121	2,145,565	1,946,173	4,091,738
2048-49		163,464	30,885	194,349	2,223,807	2,023,461	4,247,268

(1) Annual toll rate increases are implemented in January of each year.
(2) Reflects actual traffic and revenue experience.
(3) The Delaware River Bridge toll plaza was converted from part of the Ticket System to a one-way barrier AET facility in January 2016.
(4) Reflects actual experience through February 2019.
(5) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(6) The partial I-95 Interchange (Stage 1) opened in September 2018.

The same information is shown for the Barrier Systems in **Table 17**. Total annual toll transactions are estimated to grow from 43.2 million to 66.6 million over the forecast period, an average rate of 1.4 percent.

Barrier System total revenue is estimated to increase from $110.6 million to $535.9 million over the forecast period, an annual rate of 5.1 percent.

Table 18 identifies total combined transactions and gross toll revenue and also factors in estimated toll discounts and adjustments. The vast majority of the discounts and adjustments result from commercial account toll adjustments due to the Turnpike's volume discount program. The volume discount program allows for a 3.0 percent discount to be provided to accounts that accrue $20,000 or more in monthly tolls. Discounts and adjustments shown in Table 18 assume no further changes to the post-paid commercial volume discount program during the forecast period. The result is that the current forecasts have a negative adjustment applied for FY 2016-17 and beyond that equals approximately 1.4 percent of the commercial vehicle gross toll revenue.

As shown in Table 18, total toll transactions are expected to increase from nearly 200.5 million to 260.9 million over the forecast period. This amounts to an average annual growth rate of 0.8 percent. Total net toll revenue is estimated to grow from approximately $1.1 billion in FY 2016-17 to $4.8 billion by FY 2048-49. This reflects an average annual growth rate in gross toll revenue of 4.7 percent. Again, this includes the impact of normal growth plus annual toll rate adjustments.

Table 19 provides a comparison of the current traffic and net toll revenue forecast with the forecast developed as part of the 2018 Forecast Study. As shown, the revised total toll transactions slightly exceed those of the 2018 Forecast report through FY 2021-22. This is because recent experience has shown that actual toll transactions have exceeded estimates by about 1.3 percent (see Table 15). CDM Smith slowly decreased future commercial vehicle growth over time, such that by FY 2022-23, we now estimate that total toll transactions will be about 0.5 percent lower than the previous estimates.

Beginning in FY 2018-19 (which includes nine months of actual data) through FY 2021-22 the new toll revenue forecasts are between 4.0 and 4.6 percent greater than those from the 2018 Forecast Study. As shown in Table 15, actual toll revenue over the last 12 months has exceeded CDM Smith's forecasts by 4.4 percent. The slightly lower long-term growth rates reduce the positive impact of the new revenue forecasts to 2.7 percent by the outer years of the forecast. Unlike with the traffic forecasts, the new revenue forecasts remain higher than the previous forecasts over the entire forecast period. This is because the average toll rates for commercial vehicles is now higher than previously assumed. This occurs because of the lower E-ZPass market share assumptions for commercial vehicles at recently converted AET facilities over the forecast period.

Table 17

Barrier Systems: Estimated Annual Transactions and Gross Toll Revenue (1)

Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

		Annual Traffic			Annual Gross Toll Revenue		
Fiscal Year		Passenger Cars	Commercial Vehicles	Total Vehicles	Passenger Cars	Commercial Vehicles	Total Vehicles
2016-17	(2,3,5)	37,671	5,524	43,195	$73,872	$36,694	$110,566
2017-18	(2,6)	38,385	6,073	44,459	79,357	42,042	121,399
2018-19	(4,7,8)	40,285	6,483	46,769	91,843	47,862	139,705
2019-20	(9)	40,635	6,564	47,199	102,331	51,811	154,142
2020-21		40,405	6,636	47,041	108,561	55,615	164,176
2021-22	(10)	42,203	7,090	49,293	115,219	59,920	175,139
2022-23		45,467	7,828	53,295	124,119	64,916	189,035
2023-24		46,553	8,042	54,595	131,671	68,988	200,659
2024-25		47,518	8,225	55,743	139,663	73,254	212,917
2025-26		48,321	8,361	56,682	147,628	77,395	225,023
2026-27		49,039	8,469	57,509	154,926	81,072	235,998
2027-28		49,536	8,529	58,065	161,581	84,335	245,916
2028-29		50,023	8,598	58,621	167,996	87,613	255,609
2029-30		50,473	8,681	59,154	174,555	91,226	265,781
2030-31		50,901	8,762	59,663	181,263	94,967	276,230
2031-32		51,312	8,842	60,154	188,134	98,848	286,982
2032-33		51,709	8,922	60,632	195,209	102,874	298,083
2033-34		52,089	9,002	61,090	202,479	107,048	309,527
2034-35		52,459	9,081	61,540	210,020	111,380	321,400
2035-36		52,816	9,160	61,975	217,878	115,875	333,753
2036-37		53,156	9,238	62,393	226,002	120,524	346,526
2037-38		53,483	9,314	62,798	234,333	125,323	359,656
2038-39		53,808	9,391	63,199	242,928	130,304	373,232
2039-40		54,118	9,468	63,586	251,801	135,475	387,276
2040-41		54,404	9,545	63,949	260,942	140,817	401,759
2041-42		54,682	9,621	64,303	270,389	146,317	416,706
2042-43		54,952	9,697	64,649	280,123	152,006	432,129
2043-44		55,213	9,773	64,986	290,150	157,904	448,055
2044-45		55,468	9,848	65,316	300,482	164,018	464,500
2045-46		55,715	9,923	65,638	311,118	170,355	481,473
2046-47		55,954	9,998	65,951	322,081	176,923	499,004
2047-48		56,188	10,072	66,260	333,390	183,732	517,121
2048-49		56,423	10,147	66,570	345,095	190,803	535,898

(1) Annual toll rate increases are implemented in January of each year.
(2) Reflects actual traffic and revenue experience.
(3) The Delaware River Bridge toll plaza was converted from part of the Ticket System to a one-way barrier AET facility in January 2016.
(4) Reflects actual experience through February 2019.
(5) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(6) The two Northeast Extension Barrier Plazas were converted to AET at the end of April 2018.
(7) The Findlay Connector converted to AET in early June 2018.
(8) The partial I-95 Interchange (Stage 1) opened in September 2018.
(9) Assumes AKH and Gateway will convert to AET at the end of October 2019.
(10) Reflects opening of Southern Beltway between US 22 and I-79 beginning in January 2022.

Table 18

Total System: Estimated Annual Transactions and Gross Toll Revenue (1)

Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

		Annual Traffic			Annual Gross Toll Revenue			Discounts	
Fiscal Year		Passenger Cars	Commercial Vehicles	Total Vehicles	Passenger Cars	Commercial Vehicles	Total Vehicles	and Adjustments	Net Toll Revenue
2016-17	(2,3,5)	172,799	27,703	200,501	$638,787	$476,188	$1,114,975	($3,915)	$1,111,061
2017-18	(2,6)	172,512	28,650	201,162	678,741	524,418	1,203,158	(6,552)	1,196,606
2018-19	(4,7,8)	172,645	29,406	202,051	728,980	586,075	1,315,056	(8,334)	1,306,722
2019-20	(9)	171,860	29,682	201,542	772,918	626,041	1,398,959	(8,902)	1,390,057
2020-21		171,098	30,002	201,100	815,452	667,783	1,483,235	(9,496)	1,473,739
2021-22	(10)	173,021	30,690	203,711	856,735	708,513	1,565,247	(10,075)	1,555,172
2022-23		177,067	31,649	208,716	906,779	751,265	1,658,044	(10,683)	1,647,361
2023-24		179,320	32,074	211,394	959,879	794,229	1,754,108	(11,294)	1,742,814
2024-25		181,523	32,478	214,001	1,016,411	840,034	1,856,445	(11,945)	1,844,500
2025-26		183,801	32,854	216,655	1,073,633	885,784	1,959,417	(12,596)	1,946,821
2026-27		186,085	33,198	219,283	1,125,652	926,662	2,052,314	(13,177)	2,039,137
2027-28		188,116	33,477	221,593	1,173,841	963,901	2,137,743	(13,707)	2,124,036
2028-29		190,102	33,793	223,895	1,219,560	1,001,566	2,221,126	(14,242)	2,206,883
2029-30		192,022	34,167	226,188	1,266,549	1,043,475	2,310,025	(14,838)	2,295,186
2030-31		193,886	34,538	228,424	1,315,214	1,086,972	2,402,186	(15,457)	2,386,729
2031-32		195,721	34,909	230,630	1,366,908	1,132,124	2,499,032	(16,099)	2,482,933
2032-33		197,527	35,279	232,806	1,421,783	1,178,990	2,600,773	(16,765)	2,584,008
2033-34		199,267	35,649	234,916	1,478,251	1,227,639	2,705,889	(17,457)	2,688,432
2034-35		200,958	36,018	236,976	1,536,493	1,278,149	2,814,642	(18,175)	2,796,466
2035-36		202,597	36,387	238,984	1,596,610	1,330,598	2,927,208	(18,921)	2,908,287
2036-37		204,198	36,750	240,948	1,658,745	1,384,770	3,043,515	(19,691)	3,023,823
2037-38		205,702	37,103	242,805	1,722,281	1,440,575	3,162,855	(20,485)	3,142,370
2038-39		207,163	37,456	244,619	1,787,702	1,498,506	3,286,208	(21,309)	3,264,899
2039-40		208,593	37,810	246,403	1,855,315	1,558,648	3,413,963	(22,164)	3,391,799
2040-41		209,977	38,165	248,142	1,925,113	1,621,067	3,546,180	(23,052)	3,523,128
2041-42		211,328	38,521	249,849	1,997,149	1,685,835	3,682,984	(23,973)	3,659,011
2042-43		212,637	38,877	251,513	2,071,365	1,753,068	3,824,434	(24,929)	3,799,505
2043-44		213,911	39,233	253,145	2,147,895	1,822,881	3,970,776	(25,921)	3,944,855
2044-45		215,154	39,591	254,745	2,226,815	1,895,368	4,122,183	(26,952)	4,095,230
2045-46		216,360	39,949	256,309	2,308,152	1,970,622	4,278,774	(28,022)	4,250,751
2046-47		217,545	40,308	257,853	2,392,157	2,048,760	4,440,917	(29,133)	4,411,783
2047-48		218,713	40,668	259,381	2,478,954	2,129,905	4,608,859	(30,287)	4,578,572
2048-49		219,887	41,032	260,919	2,568,902	2,214,264	4,783,165	(31,487)	4,751,678

(1) Annual toll rate increases are implemented in January of each year.
(2) Reflects actual traffic and revenue experience.
(3) The Delaware River Bridge toll plaza was converted from part of the Ticket System to a one-way barrier AET facility in January 2016.
(4) Reflects actual experience through February 2019.
(5) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(6) The two Northeast Extension Barrier Plazas were converted to AET at the end of April 2018.
(7) The partial I-95 Interchange (Stage 1) opened in September 2018.
(8) The Findlay Connector converted to AET in early June 2018.
(9) Assumes AKH and Gateway will convert to AET at the end of October 2019.
(10) Reflects opening of Southern Beltway between US 22 and I-79 beginning in January 2022.

Table 19
Comparison of New Traffic and Revenue
Estimates with those from the 2018 Forecast Study
Pennsylvania Turnpike

Traffic and Toll Revenue in Thousands

		Total Annual Transactions			Total Annual Adjusted Gross Toll Revenue		
Fiscal Year		Current Estimates	2018 IG Study	Percent Difference	Current Estimates	2018 IG Study	Percent Difference
2016-17	(1,2)	200,501	200,501	0.0	$1,111,061	$1,111,061	0.0
2017-18	(2)	201,162	200,527	0.3	1,196,606	1,184,080	1.1
2018-19	(3)	202,051	199,225	1.4	1,306,722	1,250,929	4.5
2019-20		201,542	199,024	1.3	1,390,057	1,329,382	4.6
2020-21		201,100	199,574	0.8	1,473,739	1,410,906	4.5
2021-22		203,711	203,467	0.1	1,555,172	1,495,468	4.0
2022-23		208,716	209,703	(0.5)	1,647,361	1,589,229	3.7
2023-24		211,394	212,402	(0.5)	1,742,814	1,684,343	3.5
2024-25		214,001	215,027	(0.5)	1,844,500	1,785,814	3.3
2025-26		216,655	217,707	(0.5)	1,946,821	1,888,350	3.1
2026-27		219,283	220,362	(0.5)	2,039,137	1,981,635	2.9
2027-28		221,593	222,700	(0.5)	2,124,036	2,068,126	2.7
2028-29		223,895	225,001	(0.5)	2,206,883	2,151,047	2.6
2029-30		226,188	227,245	(0.5)	2,295,186	2,236,615	2.6
2030-31		228,424	229,436	(0.4)	2,386,729	2,325,657	2.6
2031-32		230,630	231,603	(0.4)	2,482,933	2,419,605	2.6
2032-33		232,806	233,745	(0.4)	2,584,008	2,517,943	2.6
2033-34		234,916	235,826	(0.4)	2,688,432	2,619,547	2.6
2034-35		236,976	237,857	(0.4)	2,796,466	2,724,656	2.6
2035-36		238,984	239,842	(0.4)	2,908,287	2,833,400	2.6
2036-37		240,948	241,788	(0.3)	3,023,823	2,945,731	2.7
2037-38		242,805	243,628	(0.3)	3,142,370	3,060,971	2.7
2038-39		244,619	245,424	(0.3)	3,264,899	3,180,057	2.7
2039-40		246,403	247,204	(0.3)	3,391,799	3,303,400	2.7
2040-41		248,142	248,959	(0.3)	3,523,128	3,431,090	2.7
2041-42		249,849	250,681	(0.3)	3,659,011	3,563,210	2.7
2042-43		251,513	252,362	(0.3)	3,799,505	3,699,804	2.7
2043-44		253,145	254,010	(0.3)	3,944,855	3,841,108	2.7
2044-45		254,745	255,627	(0.3)	4,095,230	3,987,289	2.7
2045-46		256,309	257,208	(0.3)	4,250,751	4,138,460	2.7
2046-47		257,853	258,770	(0.4)	4,411,783	4,294,979	2.7
2047-48		259,381	260,315	(0.4)	4,578,572	4,457,089	2.7

(1) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(2) Reflects actual traffic and revenue experience.
(3) Reflects actual experience through February 2019.

Additional reason for continued increased toll revenue relate to the I-95 Stage 1 interchange opening in September 2018; this brought in more revenue than expected. The Northeast Extension Barrier Facilities and the Findlay Connector AET conversion also changed the vehicle classification systems at these facilities, which raised average toll rates.

* * *

Fiduciary Disclaimer

Current accepted professional practices and procedures were used in the development of these updated traffic and revenue forecasts. However, as with any forecast of the future, there may be differences between forecasted and actual results caused by events and circumstances beyond the control of CDM Smith. In formulating its forecasts, CDM Smith has reasonably relied upon the accuracy and completeness of information provided (both written and oral) by the PTC and other local and state agencies. CDM Smith also has relied upon the reasonable assurances of some independent parties and is not aware of any facts that would make such information misleading.

CDM Smith has made qualitative judgments related to several key variables in the development and analysis of the traffic and revenue forecasts that must be considered as a whole; therefore selecting portions of any individual result without consideration of the intent of the whole may create a misleading or incomplete view of the results and the underlying methodologies used to obtain the results. CDM Smith gives no opinion as to the value or merit to partial information extracted from this report.

All forecasts and projections reported herein are based on CDM Smith's experience and judgment and on a review of information obtained from multiple state and local agencies, including the PTC. These estimates and projections may not be indicative of actual or future values, and are therefore subject to substantial uncertainty. Future developments cannot be predicted with certainty, and may affect the forecasts or projections expressed in this report, such that CDM Smith does not specifically guarantee or warrant any forecasts or projections contained within this report.

While CDM Smith believes that some of the projections or other forward-looking statements contained within the report are based on reasonable assumptions as of the date in the report, such forward-looking statements involve risks and uncertainties that may cause actual results to differ materially from the results predicted. Therefore, following the date of this report, CDM Smith will take no responsibility or assume any obligation to advise of changes that may affect its assumptions contained within the report, as they pertain to: socioeconomic and demographic forecasts, proposed residential or commercial land use development projects and/or potential improvements to the regional transportation network.

CDM Smith is not, and has not been, a municipal advisor as defined in Federal law (the Dodd Frank Bill) to the PTC and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to PTC with respect to the information and material contained in this report. CDM Smith is not recommending and has not recommended any action to PTC. PTC should discuss the information and material contained in this report with any and all internal and external advisors that it deems appropriate before acting on this information.

*   *   *

Sincerely,

Robert Pintar, P.E.
Vice President
CDM Smith Inc.

Yogesh Patel, AICP
Project Manager
CDM Smith Inc.

[THIS PAGE INTENTIONALLY LEFT BLANK]

Pennsylvania Turnpike 2018 Traffic and Revenue Forecast Study

April 2018

PENNA TURN PIKE

Pennsylvania Turnpike Commission

CDM Smith

Table of Contents

Tables

Figures

Chapter 1

Introduction

This report summarizes the analyses conducted by CDM Smith in developing updated traffic and toll revenue estimates for the various toll facilities operated by the Pennsylvania Turnpike Commission (PTC). CDM Smith forecasts have been used by PTC for more than 20 years in support of the issuance of bond financing and for internal financial planning. In light of the current economic climate, it is more important than ever to have up-to-date traffic and revenue forecasts based on the most current information available.

CDM Smith last developed a detailed investment grade traffic and toll revenue study in March 2015. Since that time additional “bring down” letters have also been developed to update forecasts developed in the 2015 Study. Bring down letters were developed in March 2016 and May 2017. The purpose of a bring down letter is to update actual traffic and revenue experience since the last study and to adjust short term (2 to 5 year) forecasts based on recent trends. Detailed economic analyses are not conducted as part of a bring down letter and therefore longer-term forecasts are not adjusted from those originally developed as part of the latest investment grade study.

This current study included a comprehensive evaluation of the most currently available long term socioeconomic forecasts, and is, therefore, meant to be an update of the March 2015 investment grade study. This forecast includes updated long-term traffic and revenue forecasts through FY 2047-48. PTC’s most recent assumptions regarding future toll rate increases, discount levels for the Commercial Volume Discount Program, and future committed capital improvements have been incorporated into this study. CDM Smith also developed and incorporated estimates of future year E-ZPass penetration for cars and trucks on the PTC’s toll facilities.

PTC has been studying the possible implementation of all electronic tolling (AET) on its facilities. CDM Smith has been a member of the study team analyzing both the potential traffic and toll revenue impacts as well as the potential capital, and maintenance and operating (M&O) cost impacts AET may have on the Turnpike System. AET was implemented on the Delaware River Bridge (plaza 359) in January 2016, and on the Beaver Valley Expressway in May 2017. The traffic and revenue forecasts included in this study also assume the implementation of AET on the Northeast Extension barrier toll plazas, and on the Southern Beltway, both in late April 2018. Over time, all remaining toll facilities will be converted to AET, but toll rates have not yet been set. It is assumed that all future AET conversions will be net revenue neutral.

1.1 Report Structure

This report is comprised of four chapters, including the following:

Chapter 1: Introduction
Chapter 2: Turnpike Characteristics
Chapter 3: Socioeconomic Trends and Forecasts
Chapter 4: Transaction and Toll Revenue Forecasts

The following is a brief description of each chapter following this introduction.

Chapter 2 (Turnpike Characteristics) provides a review of monthly and annual transaction and toll revenue trends. Data are provided for passenger cars and commercial vehicles separately. Information is provided for the entire Turnpike System as well as for each of the individual toll facilities (Ticket System, Turnpike 43, etc.) that make up the Turnpike System. E-ZPass market share trends, historical toll rate adjustments, and changes to the Commercial Volume Discount Program are also summarized in Chapter 2.

Chapter 3 (Socioeconomic Trends and Forecasts) summarizes trends and forecasts in key socioeconomic variables, including population, employment, retail sales, and gross regional product. This data is broken down (at a county level) to reflect the actual market share for the various interchanges on the Turnpike System. Pennsylvania statewide data, as well as data for surrounding states and the United States, are also provided for each of these variables. Trends and forecasts in motor fuel prices are also covered in this chapter. The methodology used to estimate future traffic growth is described in detail. The ultimate product of Chapter 3 is a table showing the assumed normal growth rates used to develop traffic and toll revenue estimates for passenger cars and commercial vehicles for each Turnpike toll facility.

Chapter 4 (Transaction and Toll Revenue Forecasts) begins with a review of the assumed roadway improvement program for the Pennsylvania Turnpike. Planned toll rate adjustments throughout the 30-year forecast period are identified. Because of the toll differential that now exists between cash and E-ZPass, assumptions regarding future E-ZPass market share are important. All assumptions regarding E-ZPass market share throughout the forecast period are discussed in this chapter. Finally, estimates of traffic and gross toll revenue are provided through FY 2047-48. Forecasts are provided for passenger cars and commercial vehicles, for both the Ticket System and the total Barrier System, as well as for the total Turnpike System. Lastly, adjustments are made to the toll revenue forecasts to accounting for video bad debt expenses. Video bad debt expenses is the term PTC uses to describe the portion of toll by plate invoices that are not paid. This is associated with the implementation of AET on the Delaware River Bridge, the Beaver Valley Expressway, the Northeast Extension barrier toll plazas, and the Southern Beltway.

Chapter 2

Turnpike Characteristics

This chapter presents historical transaction and gross toll revenue trends on the Turnpike facilities. It also presents actual trends in the E-ZPass market share and historical toll increases. A comparison is presented between the current Turnpike per-mile toll rate on the Mainline I-76/I-276 and other toll road facilities. Lastly, the PTC's Commercial Volume Discount Program is described.

2.1 The Pennsylvania Turnpike Facilities

Figure 2-1 provides an overview of the Turnpike System, identifying each of its six toll facilities:

1. Mainline I-76/-276 from Ohio to New Jersey (359 miles) – This description includes the barrier plazas Gateway and Delaware River Bridge.
2. Northeast Extension I-476 (110 miles) – This includes the Clarks Summit and Keyser Avenue barrier plazas.
3. Turnpike 43 – Mon/Fayette Expressway (48 miles)
4. Turnpike 66 – Amos K. Hutchinson Bypass (13 miles)
5. Turnpike I-376 – Beaver Valley Expressway (16 miles)
6. Turnpike I-576 - Southern Beltway – Findlay Connector Section (6 miles)

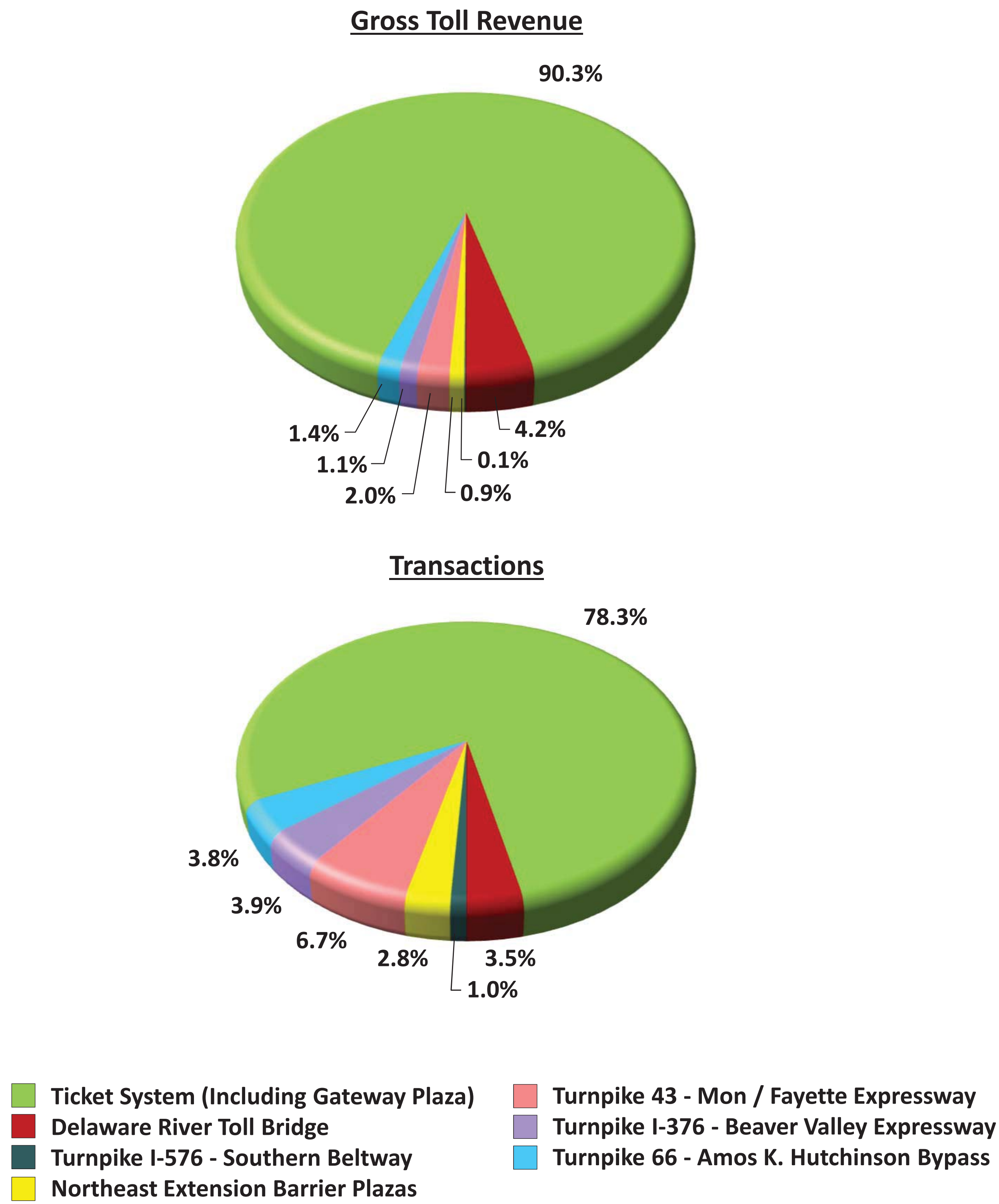
There are two toll collection systems on the Turnpike System; a Ticket System, and a Barrier System. The Ticket System is comprised of the majority of Mainline I-76/I-276 (from Interchange 30, Warrendale, in western Pennsylvania to Interchange 353, Neshaminy Falls, near the New Jersey border) and the majority of the Northeast Extension (from Interchange 20, Mid-County, to Interchange 131, Wyoming Valley). On the Ticket System, the toll rate is charged by the individual movement on the toll road. The motorist picks up a ticket when entering the Ticket System and pays for the trip upon exiting the Ticket System.

The Barrier System is comprised of Turnpikes I-376 (Beaver Valley Expressway), Turnpike 66 (Amos K. Hutchinson Bypass), Turnpike 43 (Mon/Fayette Expressway) and Turnpike I-576 (Southern Beltway). There are also two barrier plazas on the Mainline I-76/I-276; Gateway (Plaza 2) and the Delaware River Bridge (DRB) (plaza 359). Both Gateway and DRB were converted from Ticket System plazas to Barrier System plazas; DRB in January 2016, and Gateway in June 2003. At Barrier plazas, a defined toll rate is charged for each vehicle class and payment type. The toll is not dependent on a trip.

The Ticket System is by far the largest component of the Turnpike System. As seen in Figure 2-2, the Ticket System accounted for 90.3% of the Turnpike System's total gross toll revenue, and 78.3% of the total transactions in calendar year 2017. Fixed barrier locations accounted for only 9.7% of gross toll revenue and 21.7% of transactions.

PENNSYLVANIA TURNPIKE COMMISSION (PTC) TOLL ROAD FACILITIES

FIGURE 2-1



PERCENT OF CALENDAR YEAR 2017 TRANSACTIONS AND GROSS TOLL REVENUE BY FACILITY

FIGURE 2-2

2.2 Toll Rates and Commercial Volume Discount Program

2.2.1 Payment Options

Various payment options are available on the PTC's toll facilities. Most of the Turnpike System accepts payment by electronic toll collection (ETC) via an E-ZPass transponder, and by cash or credit card. A few toll plazas accept only E-ZPass transactions. A recent development, initiated in 2016, is the conversion of some facilities or plazas to All Electronic Tolling (AET). AET facilities or toll locations accept payment through E-ZPass or by a License Plate Tolling system called Toll By Plate (TBP). Traditional cash customers passing through an AET tolling location receive a Toll By Plate invoice. E-ZPass customers are be billed as usual. There are no physical toll plazas on AET facilities. Transactions are identified either by an E-ZPass transponder or by the video capture of a license plate. Toll collection equipment is located on gantries, near or over the roadway. The following toll locations or facilities were converted to AET since 2016:

- Delaware River Bridge (Plaza 359) in January 2016
- Beaver Valley Expressway in May 2017

2.2.2 Historical Toll Rate Increases and E-ZPass/Cash Toll Differential

Since 2009, the PTC has implemented annual toll rate increases on, or close to January 1. Prior to 2009, toll rates were increased at irregular intervals. Table 2-1 shows the toll rate since 1987. The rate increases were generally systemwide, with a few exceptions, as noted.

Table 2-1
Historical Toll Rate Increases
Pennsylvania Turnpike

Date	Percent Increase		Comment
	Cash/TBP	E-ZPass	
1/2/1987	40.0	NA	E-ZPass was not implemented until 2001
6/1/1991	32.0	NA	E-ZPass was not implemented until 2001
8/1/2004	42.5	42.5	
1/4/2009	25.0	25.0	No increase on Turnpike I-576 or Turnpike 43 between Uniontown and Brownsville
1/3/2010	3.0	3.0	No increase on Turnpike I-576
1/2/2011	10.0	3.0	No increase on Turnpike I-576
1/1/2012	10.0	0.0	No increase on Turnpike I-576
1/6/2013	10.0	2.0	
1/5/2014	12.0	2.0	No increase on Turnpike I-576
1/4/2015	5.0	5.0	No increase on Turnpike I-576
1/3/2016	6.0	6.0	No increase on Turnpike I-576
1/8/2017	6.0	6.0	No increase on Turnpike I-576 or Delaware River Bridge (Plaza 359)
1/7/2018	6.0	6.0	No increase on Turnpike I-576 or Delaware River Bridge (Plaza 359)

E-ZPass was phased in beginning in 2001. Initially, E-ZPass tolls and cash tolls were identical, but in 2011, cash tolls were increased by 10.0% over 2010, and E-ZPass tolls were increased by 3.0%, creating a toll differential between the two methods of payment. In 2011, cash tolls were about 7%

greater than E-ZPass tolls. The toll differential was increased through 2014, when the cash toll was about 40% more than the E-ZPass toll. This percent differential has been maintained through 2018. The toll rate differential between E-ZPass and cash incentivizes E-ZPass participation.

The PTC plans to continue annual toll rate increases through the forecast period, and the toll rate increases will be the same for E-ZPass and cash/TBP. The planned annual rate increases are shown in Table 4-2.

2.2.3 Per-Mile Toll Rates

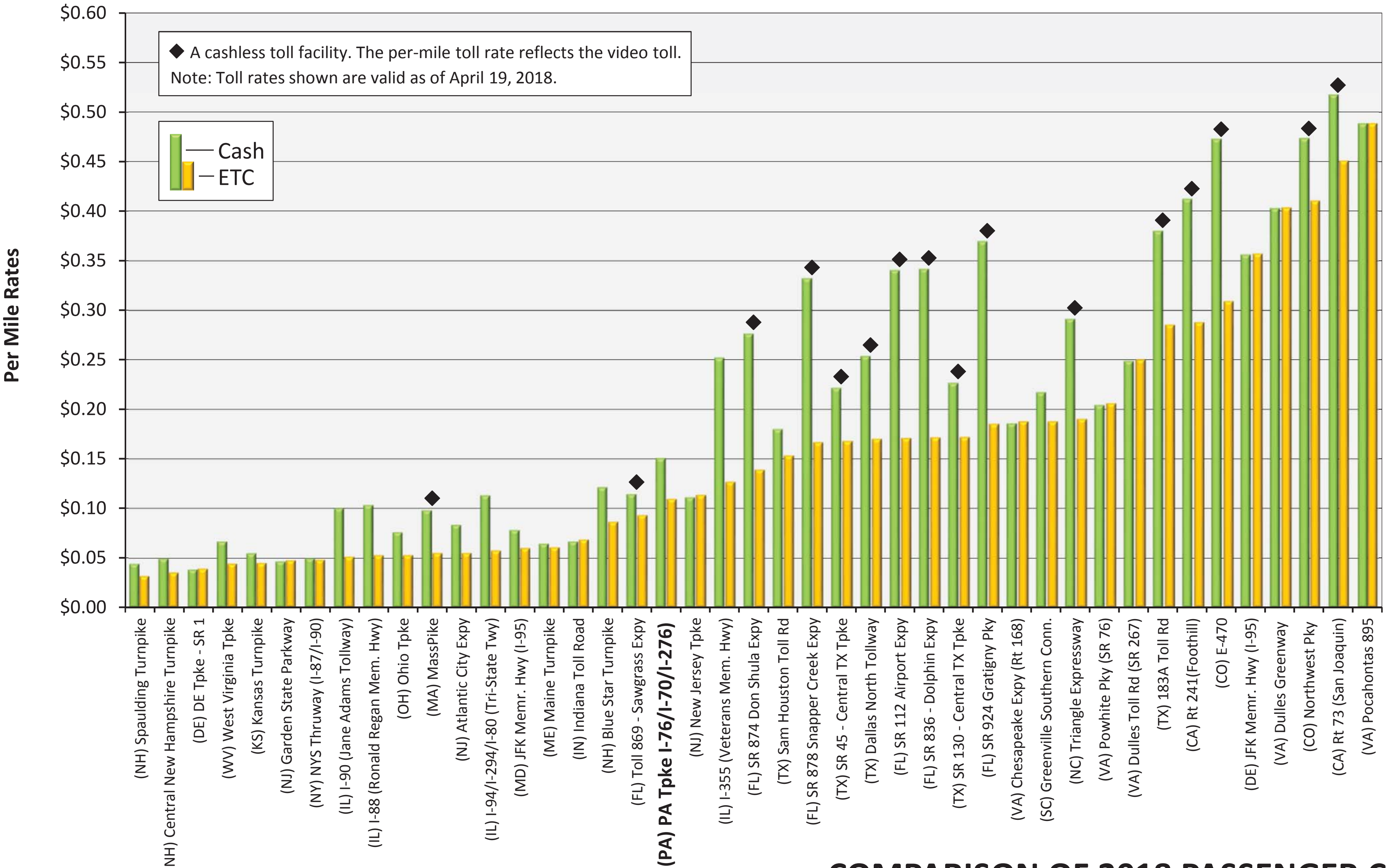
In 2018, a passenger car using cash pays $0.15 per-mile to travel the length of the Mainline, from the Delaware River Bridge through Gateway compared to $0.11 per mile for the same trip using E-Zpass. Figure 2-3 compares 2018 passenger-car per-mile toll rates for a through trip on 44 U.S. toll facilities. The Pennsylvania Turnpike is represented by a through trip on the Mainline I-76/I-276 from Delaware River Bridge through Gateway, which is shown in bold text. The per-mile rates are provided for ETC and cash payments. If the facility is AET, the license plate or video per-mile toll is represented in the cash column. The data is sorted from low to high by the ETC per-mile toll rates. A through trip on the Pennsylvania Mainline I-76/I-276 by a passenger car paying by ETC costs $0.11 per mile, which is comparable to $0.11 per mile on the New Jersey Turnpike.

Figure 2-4 presents a similar comparison of five-axle commercial-vehicle per-mile toll rates for through trips on the same 43 U.S. toll facilities. A trip on the Pennsylvania Mainline I-76/I-276 costs $0.58 per mile for E-ZPass compared to $0.41 on the New Jersey Turnpike in 2018.

Figures 2-3 and 2-4 show the 2018 per-mile rate on the PA Turnpike System falls approximately in the middle of the 43 U.S. toll facilities.

2.2.4 Commercial Volume Discount Program

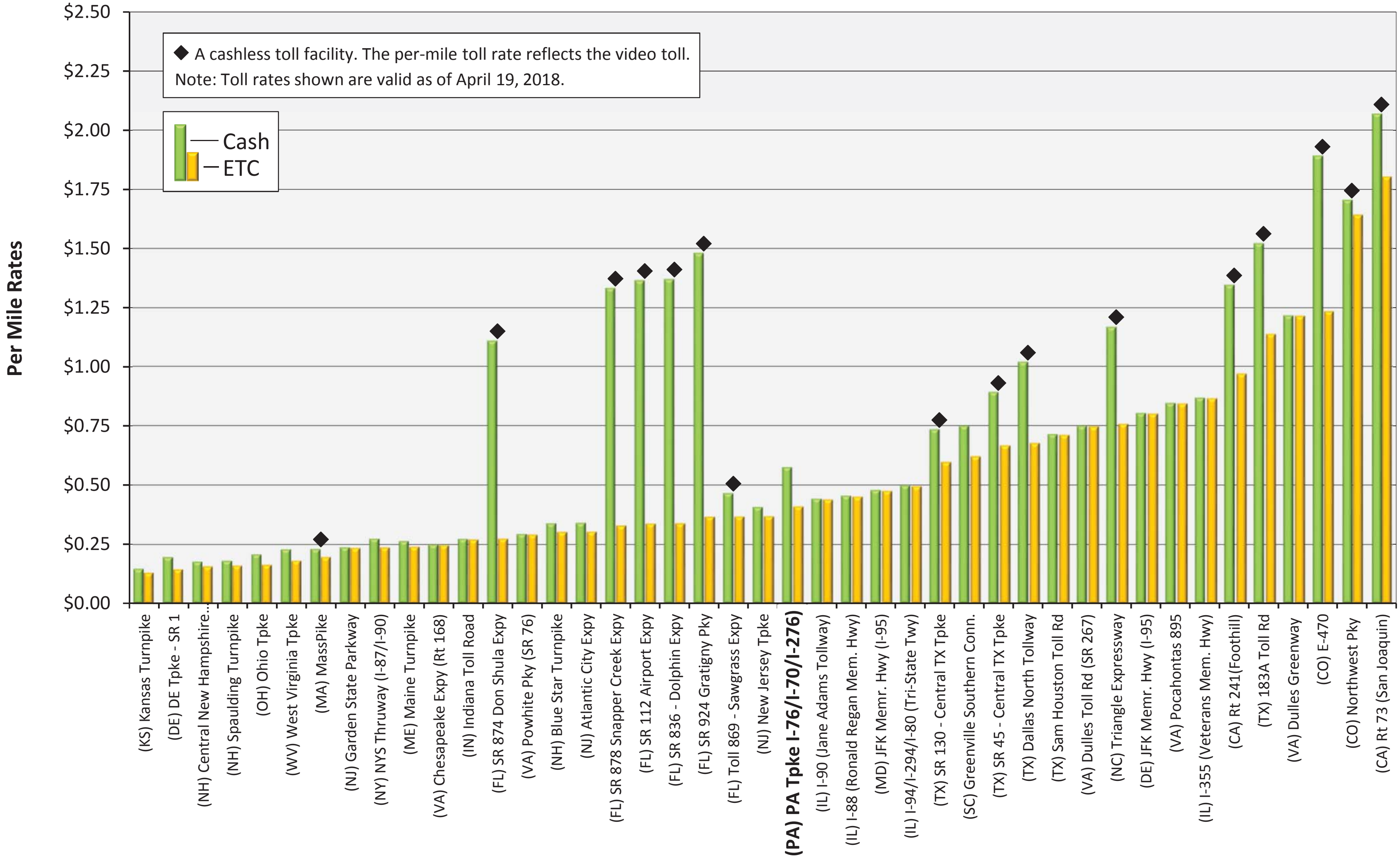
The PTC operates a Commercial Volume Discount Program. Prior to the implementation of system wide toll rates favorable to E-ZPass customers, a post-paid, commercial volume-discount program was established for high-volume, commercial E-ZPass accounts. Post-paid commercial E-ZPass customers could receive the varying levels of discounts based on the amount of their monthly tolls. With the implementation of E-ZPass and the large toll savings offered to E-ZPass customers, the Commercial Volume Discount Program was modified over the years. Currently, in 2018, commercial accounts that accrue greater than $20,000.00 per month on tolls receive a three percent discount.



COMPARISON OF 2018 PASSENGER CAR PER-MILE THROUGH TRIP TOLL RATES (DATA SORTED BY ETC TOLL RATES)

CDM Smith

FIGURE 2-3



COMPARISON OF 2018 FIVE-AXLE VEHICLE PER-MILE THROUGH TRIP TOLL RATES (DATA SORTED BY ETC TOLL RATES)

FIGURE 2-4

2.3 Annual Transaction Trends by Plaza

This section presents long-term annual transaction trends on the Ticket and Barrier Systems by toll plaza. Data is provided from 2003 through 2017 for Ticket and Barrier System toll plazas.

2.3.1 Ticket System Transaction Trends

Average annual daily transactions at the Ticket System's exiting toll plazas are shown in Tables 2-2 through 2-4 for passenger cars, commercial vehicles and total vehicles, respectively. The transactions include both revenue and non-revenue vehicles. Gateway (plaza 2) transactions are included in this table.

Some important changes occurred on the Ticket System that are reflected in the tables. In January 2016, the eastern terminus of the Ticket System was changed from the existing Delaware River Bridge (plaza 359) to the new Neshaminy Falls (plaza 353). Tolled transactions at Neshaminy Falls are collected in the eastbound direction, exiting the Ticket System, and are reported as part of the Ticket System. When Neshaminy Falls opened, the DRB was converted from the Ticket system to a barrier plaza with toll collection in the westbound direction. DRB transactions were counted under the Ticket System until January 2016, when they were reported on the Barrier System. Associated with moving the Ticket System's eastern terminus to Neshaminy Falls, toll collection was ended at Delaware Valley (plaza 358).

It should be noted that the Delaware River Bridge (plaza 359) was closed from January 20 through March 9, 2017 due to a fracture in one of the structural support beams. Although the DRB is on the Barrier System, the closure also negatively affected Ticket System traffic and revenue in January, February, and March 2017.

New access to the Ticket System is also shown in Tables 2-2 through 2-4. Since 2004, four new interchanges opened on the Ticket System; Virginia Drive (Milepost 340) in 2002, Street Road (Milepost 352) in 2010, SR 29 (Milepost 320) in 2012, and Route 903 (Milepost 87) in 2015. These were opened as E-ZPass-only interchanges. No cash is accepted.

In Tables 2-2 through 2-4, transaction trends are summarized by average annual growth rates into the following three periods:

1) The 5-year period from 2007-2012,
2) The 5-year period from 2012-2017, and
3) The 14-year period from 2003-2017.

Passenger-car transaction growth, shown in Table 2-2, averaged 0.3% annually from 2007-2012, and 0.9% annually from 2012-2017. Growth was impacted by the Great Recession which lasted from December 2007 through of June 2009, slow economic recovery, annual toll rate increases, and the closure of the DRB in 2017.

Table 2-3 shows commercial-vehicle transaction trends on the Ticket System. Commercial vehicle transactions averaged annual growth of 0.2% from 2007-2012, and 2.6% growth from 2012-2017. Total-vehicle transaction trends are shown in Table 2-4. Because passenger cars make up about 86% of total Ticket System toll transactions, the trends and growth rates for total vehicles closely mirror those for passenger cars. Total transactions averaged growth of 0.2% from 2007-2012, and 1.0% growth from 2012-2017.

Table 2-2
Passenger Cars - Average Daily Transactions on the Turnpike Ticket System At Exiting Toll Plazas
Includes Revenue and Non-Revenue Vehicles, and Gateway Barrier Plaza

Interchange	Calendar Year															Average Annual Percent Change		
(Milepost)	2003	2004(1)	2005	2006	2007	2008	2009(1)	2010(1)	2011(1)	2012(1)	2013(1)	2014(1)	2015(1)	2016(1)	2017(1)	2007-12	2012-17	2003-17
2 (2)	13,828	16,379	15,873	8,194	8,183	8,096	8,441	8,716	8,743	8,820	8,967	8,942	9,209	9,469	9,494	0.8	1.5	(2.6)
30	7,374	11,585	11,269	11,419	11,940	12,056	12,232	12,118	12,023	11,939	12,413	12,339	12,542	12,704	12,844	(0.0)	1.5	4.0
39	5,448	5,417	5,154	5,181	5,613	5,627	5,495	5,527	5,333	5,416	5,832	5,855	5,540	5,821	5,699	(0.4)	1.0	0.3
48	9,505	9,377	9,101	9,129	9,406	9,226	9,087	8,879	8,576	8,734	9,171	9,147	8,882	9,101	8,889	(0.7)	0.4	(0.5)
57	18,770	18,598	18,087	18,290	18,198	18,305	18,083	17,452	17,172	17,130	17,399	17,336	17,792	17,660	17,576	(0.6)	0.5	(0.5)
67	10,303	10,054	9,437	9,582	9,614	9,068	8,674	8,776	8,718	8,955	8,870	8,783	9,037	8,807	8,675	(0.7)	(0.6)	(1.2)
75	9,394	9,191	8,880	8,779	8,806	8,522	8,433	8,550	8,246	8,539	8,556	8,701	8,861	8,545	8,405	(0.3)	(0.3)	(0.8)
91	2,253	2,239	2,257	2,237	2,478	2,395	2,351	2,371	2,279	2,352	2,393	2,344	2,403	2,385	2,447	(0.5)	0.8	0.6
110	2,061	1,948	1,892	1,927	2,067	2,119	2,104	2,136	2,159	2,156	2,048	2,027	2,101	2,048	2,065	0.4	(0.9)	0.0
146	3,290	3,370	3,163	3,037	3,059	2,994	2,972	2,945	2,848	2,779	2,715	2,773	2,803	2,746	2,707	(1.0)	(0.5)	(1.4)
161	6,820	6,713	6,517	6,356	6,216	6,005	6,356	6,262	6,064	6,023	6,057	6,000	6,087	5,916	5,777	(0.3)	(0.8)	(1.2)
180	715	761	691	676	711	675	655	658	645	610	593	586	608	608	627	(1.5)	0.5	(0.9)
189	488	483	448	443	440	426	409	418	409	391	378	385	406	421	442	(1.2)	2.5	(0.7)
201	670	679	649	658	662	614	603	642	634	628	625	594	605	650	669	(0.5)	1.3	(0.0)
226	5,365	5,262	4,939	4,959	4,973	4,736	4,628	4,899	4,705	4,541	4,637	4,667	4,813	4,541	4,642	(0.9)	0.4	(1.0)
236	4,804	4,796	4,567	4,562	4,661	4,507	4,470	5,074	4,883	4,689	4,762	4,846	5,181	5,128	5,207	0.1	2.1	0.6
242	5,781	5,734	5,352	5,196	5,265	6,068	5,894	5,476	5,371	5,159	5,295	5,530	5,823	5,615	5,656	(0.2)	1.9	(0.2)
247	10,217	10,256	9,917	9,553	9,902	10,073	9,952	10,478	10,155	9,948	10,074	10,175	10,598	10,521	10,535	0.0	1.2	0.2
266	3,663	3,695	3,643	3,602	3,740	3,577	3,484	3,571	3,442	3,519	3,621	3,640	3,815	3,940	4,066	(0.6)	2.9	0.7
286	6,954	7,207	6,969	7,185	7,397	7,060	6,910	6,937	6,766	6,736	6,886	7,026	7,393	7,545	7,713	(0.9)	2.7	0.7
298	7,201	7,359	7,335	7,457	7,446	7,448	7,176	7,018	6,789	6,588	6,737	7,022	7,383	7,501	7,564	(1.2)	2.8	0.4
312	10,421	10,455	10,291	10,558	11,011	10,635	10,234	10,353	10,315	10,347	10,444	10,692	10,522	10,186	9,963	(0.6)	(0.8)	(0.3)
320 (3)										113	3,539	4,667	5,223	5,292	5,453	-	117.1	-
326	26,928	28,231	28,201	28,173	27,069	26,975	27,783	29,284	28,965	28,780	28,066	28,423	29,777	30,197	30,737	0.6	1.3	0.9
333	12,297	12,586	11,861	11,455	11,312	11,848	11,904	12,166	12,093	11,860	11,811	11,598	11,235	11,319	11,313	0.5	(0.9)	(0.6)
20	34,130	35,753	35,452	36,060	36,659	35,518	34,961	35,236	35,478	36,231	36,441	36,305	37,726	38,010	37,978	(0.1)	0.9	0.8
339	22,140	22,015	21,709	21,561	21,203	20,312	20,989	22,973	23,265	23,582	23,852	23,849	24,711	24,709	24,910	1.1	1.1	0.8
340 (4)	1,318	1,541	1,570	1,581	1,537	1,521	1,370	1,422	1,447	1,409	1,484	1,627	1,721	1,842	1,913	(0.9)	6.3	2.7
343	24,850	25,716	25,152	24,609	26,054	25,277	25,165	26,569	26,178	25,858	25,323	24,896	25,105	25,628	25,447	(0.1)	(0.3)	0.2
351	29,503	30,084	29,563	29,433	29,917	29,315	29,196	29,690	28,170	27,512	27,316	26,689	27,226	27,475	27,137	(0.8)	(0.3)	(0.6)
352 (5)								158	1,805	2,146	2,384	2,676	2,949	3,111	3,826	-	12.3	-
353														19,957	18,783	-	-	-
358 (6)	5,755	6,011	5,856	5,854	5,917	5,964	5,767	5,716	5,538	5,386	5,090	4,950	4,951			-	-	-
359 (7)	17,532	18,086	17,844	17,635	17,727	17,274	16,943	17,255	16,846	16,164	16,333	16,608	17,943			-	-	-
31	12,939	13,166	12,941	13,034	13,304	13,389	13,431	13,432	12,950	12,742	12,669	12,472	12,853	13,033	13,741	(0.4)	1.5	-
44	7,378	7,926	7,950	8,149	8,235	8,313	8,399	8,478	8,157	8,040	8,021	7,953	8,091	8,248	8,090	(0.2)	0.1	-
56	14,528	15,392	15,064	15,318	15,581	14,950	15,339	16,008	15,365	15,028	15,012	14,785	15,013	15,093	15,218	(0.4)	0.3	-
74	4,442	4,691	4,562	4,657	4,796	4,811	4,723	4,722	4,580	4,490	4,459	4,385	4,354	4,179	4,256	(0.7)	(1.1)	-
87 (8)													708	1,564	1,779	-	-	-
95	4,599	5,020	4,722	4,750	4,761	4,709	5,021	5,200	4,859	4,640	4,639	4,633	4,693	4,511	4,432	(0.3)	(0.9)	-
105	2,946	3,243	3,033	3,060	3,188	3,062	3,232	3,337	3,234	3,152	3,099	3,102	3,248	3,195	3,291	(0.1)	0.9	-
115	4,013	4,256	4,051	4,047	4,043	4,128	4,289	4,067	3,948	3,856	3,890	3,861	4,036	3,904	3,992	(0.5)	0.7	-
Total	370,623	385,275	375,967	368,356	373,089	367,599	367,153	374,969	369,153	366,989	371,905	372,889	383,965	383,123	383,961	0.3	0.9	0.3
Percent Change Over Prior Year		4.0	(2.4)	(2.0)	1.3	(1.5)	(0.1)	2.1	(1.6)	(0.6)	1.3	0.3	3.0	(0.2)	0.2			

(1) A toll increase occurred on or close to January 1. Refer to table 2-1 for the rate change.
(2) On 6/1/2003 Gateway was a barrier toll plaza with two-way toll collection. On 1/2/2006, toll collection changed from two-way to eastbound toll collection. This reduced the number of toll transactions.
(3) Interchange 320 (Route 29) Opened in December 2012 as an E-ZPass only interchange.
(4) Interchange 340 (Virginia Drive) opened in December 2000 as an E-ZPass only interchange.
(5) Interchange 352 (Street Road) opened in November 2010 as an eastbound only ,E-ZPass only interchange.
(6) Neshaminy Falls opened as the new eastern terminus of the East-West Mainline Ticket System in January 2016.
(7) The Delaware River Bridge mainline toll plaza became part of the Barrier System in January 2016. Toll collection changed from bi-directional to westbound only.
(8) Interchange 87 (Route 903) opened June 2015 as an E-ZPass only interchange.

Table 2-3
Commercial Vehicles - Average Daily Transactions on the Turnpike Ticket System At Exiting Toll Plazas
Includes Revenue and Non-Revenue Vehicles, and Gateway Barrier Plaza

Interchange	Calendar Year															Average Annual Percent Change		
(Milepost)	2003	2004(1)	2005	2006	2007	2008	2009(1)	2010(1)	2011(1)	2012(1)	2013(1)	2014(1)	2015(1)	2016(1)	2017(1)	2007-12	2012-17	2003-17
2 (2)	4,259	5,447	5,760	2,644	2,702	2,621	2,259	2,432	2,515	2,457	2,539	2,650	2,731	2,720	2,779	(0.9)	2.5	(3.0)
30	1,865	3,196	3,340	3,371	3,505	3,412	2,994	3,060	3,116	3,192	3,276	3,428	3,582	3,666	3,805	(0.9)	3.6	5.2
39	513	536	552	527	575	571	544	565	552	560	596	579	586	606	609	(0.3)	1.7	1.2
48	1,048	1,075	1,072	1,081	1,177	1,185	1,104	1,153	1,058	1,073	1,092	1,132	1,223	1,237	1,229	(0.9)	2.8	1.1
57	1,591	1,653	1,680	1,706	1,735	1,636	1,498	1,590	1,606	1,623	1,652	1,694	1,730	1,805	1,838	(0.7)	2.5	1.0
67	837	849	857	853	894	895	869	847	816	857	866	883	912	931	926	(0.4)	1.5	0.7
75	4,255	4,345	4,348	4,389	4,478	4,389	3,902	3,854	3,828	3,830	3,857	3,977	4,123	4,096	4,189	(1.6)	1.8	(0.1)
91	267	318	262	286	306	287	314	334	323	313	311	326	324	317	339	0.2	1.6	1.7
110	729	729	710	715	743	738	652	669	690	690	701	723	728	695	719	(0.7)	0.8	(0.1)
146	1,375	1,454	1,350	1,332	1,327	1,151	1,009	1,077	1,056	1,035	1,024	1,030	1,087	1,105	1,135	(2.4)	1.9	(1.4)
161	2,840	2,888	2,902	2,835	2,910	2,616	2,261	2,440	2,431	2,381	2,338	2,361	2,378	2,416	2,417	(2.0)	0.3	(1.1)
180	173	198	205	218	230	203	169	207	215	210	216	225	239	243	275	(0.9)	5.6	3.4
189	108	106	106	107	108	96	85	100	101	109	105	103	106	116	131	0.1	3.8	1.4
201	161	186	215	214	229	219	193	212	265	291	286	251	258	295	350	2.4	3.7	5.7
226	3,359	3,471	3,430	3,483	3,548	3,350	2,893	2,886	2,889	2,826	2,871	2,990	3,135	3,130	3,200	(2.2)	2.5	(0.3)
236	619	632	668	723	774	690	646	751	774	756	792	811	877	925	974	(0.2)	5.2	3.3
242	995	1,070	1,119	1,154	1,194	1,243	1,146	1,105	1,100	1,003	1,114	1,170	1,237	1,303	1,338	(1.7)	5.9	2.1
247	1,718	1,812	1,895	1,854	1,863	1,817	1,653	1,749	1,743	1,706	1,792	1,885	2,018	2,140	2,178	(0.9)	5.0	1.7
266	499	501	518	538	549	523	469	486	482	481	494	534	537	581	598	(1.3)	4.5	1.3
286	1,437	1,492	1,461	1,507	1,572	1,491	1,325	1,354	1,364	1,350	1,415	1,496	1,593	1,696	1,697	(1.5)	4.7	1.2
298	1,146	1,194	1,160	1,187	1,188	1,084	936	963	995	1,005	1,023	1,137	1,253	1,330	1,336	(1.7)	5.9	1.1
312	935	971	967	996	1,058	908	806	904	929	948	990	1,068	1,119	1,171	1,141	(1.1)	3.8	1.4
320 (3)										6	286	334	356	446	495	-	141.7	-
326	3,137	3,360	3,408	3,486	3,446	3,190	2,902	3,118	3,105	2,993	2,984	3,069	3,249	3,443	3,467	(1.4)	3.0	0.7
333	598	618	626	611	636	663	597	644	629	630	633	660	645	687	678	(0.1)	1.5	0.9
20	3,839	4,124	4,187	4,320	4,433	4,114	3,751	3,883	3,961	4,037	4,150	4,309	4,554	4,798	4,765	(0.9)	3.4	1.6
339	1,373	1,408	1,453	1,424	1,403	1,343	1,260	1,329	1,417	1,437	1,518	1,564	1,678	1,802	1,746	0.2	4.0	1.7
340 (4)	11	13	16	19	20	19	18	20	24	24	30	48	61	63	61	1.6	20.2	12.9
343	1,877	2,040	2,102	2,119	2,210	2,109	1,999	2,109	2,116	2,102	2,130	2,205	2,255	2,396	2,330	(0.5)	2.1	1.6
351	3,204	3,268	3,338	3,374	3,397	3,384	3,111	3,178	3,151	3,105	3,146	3,174	3,323	3,457	3,601	(0.9)	3.0	0.8
352 (5)								4	54	68	84	117	130	143	174	-	20.7	-
353														3,743	3,489			
358 (6)	1,624	1,737	1,807	1,810	1,812	1,529	1,410	1,654	1,571	1,442	1,458	1,514	1,553	0	0	-	-	-
359 (7)	3,296	3,613	3,754	3,790	3,949	4,137	3,768	3,474	3,389	3,231	3,330	3,491	3,740	0	0	-	-	-
31	1,319	1,387	1,409	1,429	1,505	1,495	1,453	1,498	1,450	1,431	1,436	1,562	1,672	1,742	1,660	(0.5)	3.0	-
44	842	869	897	951	990	958	929	965	943	958	998	1,048	1,094	1,120	1,129	(0.3)	3.3	-
56	2,592	2,833	2,909	3,051	3,139	3,118	3,039	3,147	3,114	3,136	3,211	3,309	3,496	3,647	3,644	(0.0)	3.1	-
74	465	496	526	546	596	484	480	527	536	523	530	547	551	582	559	(1.3)	1.3	-
87 (8)													50	133	155	-	-	-
95	1,169	1,235	1,227	1,292	1,336	1,264	1,226	1,337	1,329	1,336	1,385	1,424	1,497	1,547	1,485	(0.0)	2.1	-
105	176	205	209	210	218	400	396	200	209	205	207	209	238	244	235	(0.6)	2.8	-
115	1,250	1,336	1,340	1,329	1,358	1,204	1,167	1,268	1,266	1,258	1,287	1,300	1,420	1,391	1,412	(0.8)	2.3	-
Total	57,500	62,662	63,786	61,480	63,114	60,535	55,230	57,093	57,112	56,614	58,154	60,336	63,340	63,909	64,287	0.2	2.6	0.8
Percent Change Over Prior Year		9.0	1.8	(3.6)	2.7	(4.1)	(8.8)	3.4	0.0	(0.9)	2.7	3.8	5.0	0.9	0.6			

(1) A toll increase occurred on or close to January 1. Refer to table 2-1 for the rate change.
(2) On 6/1/2003 Gateway was a barrier toll plaza with two-way toll collection. On 1/2/2006, toll collection changed from two-way to eastbound toll collection. This reduced the number of toll transactions.
(3) Interchange 320 (Route 29) Opened in December 2012 as an E-ZPass only interchange.
(4) Interchange 340 (Virginia Drive) opened in December 2000 as an E-ZPass only interchange.
(5) Interchange 352 (Street Road) opened in November 2010 as an eastbound only ,E-ZPass only interchange.
(6) Neshaminy Falls opened as the new eastern terminus of the East-West Mainline Ticket System in January 2016.
(7) The Delaware River Bridge mainline toll plaza became part of the Barrier System in January 2016. Toll collection changed from bi-directional to westbound only.
(8) Interchange 87 (Route 903) opened June 2015 as an E-ZPass only interchange.

Table 2-4
Total Vehicles - Average Daily Transactions on the Turnpike Ticket System At Exiting Toll Plazas
Includes Revenue and Non-Revenue Vehicles, and Gateway Barrier Plaza

Interchange	Calendar Year															Average Annual Percent Change		
(Milepost)	2003	2004(1)	2005	2006	2007	2008	2009(1)	2010(1)	2011(1)	2012(1)	2013(1)	2014(1)	2015(1)	2016(1)	2017(1)	2007-12	2012-17	2003-17
2 (2)	18,087	21,826	21,633	10,838	10,884	10,717	10,700	11,148	11,258	11,276	11,506	11,592	11,939	12,189	12,273	0.4	1.7	(2.7)
30	9,239	14,781	14,609	14,791	15,445	15,468	15,226	15,178	15,140	15,131	15,689	15,767	16,124	16,370	16,649	(0.2)	1.9	4.3
39	5,961	5,953	5,706	5,709	6,188	6,198	6,039	6,092	5,885	5,976	6,428	6,434	6,126	6,426	6,309	(0.3)	1.1	0.4
48	10,553	10,452	10,173	10,210	10,583	10,411	10,191	10,032	9,634	9,806	10,263	10,278	10,106	10,338	10,119	(0.8)	0.6	(0.3)
57	20,361	20,251	19,767	19,996	19,933	19,941	19,581	19,042	18,778	18,753	19,051	19,030	19,522	19,465	19,415	(0.6)	0.7	(0.3)
67	11,140	10,902	10,294	10,435	10,507	9,963	9,543	9,623	9,534	9,813	9,737	9,667	9,949	9,738	9,601	(0.7)	(0.4)	(1.1)
75	13,650	13,537	13,228	13,168	13,284	12,912	12,334	12,404	12,074	12,369	12,413	12,678	12,984	12,641	12,594	(0.7)	0.4	(0.6)
91	2,520	2,556	2,520	2,523	2,784	2,681	2,665	2,705	2,602	2,665	2,705	2,670	2,726	2,702	2,786	(0.4)	0.9	0.7
110	2,789	2,676	2,602	2,642	2,810	2,857	2,755	2,805	2,849	2,847	2,750	2,750	2,829	2,743	2,784	0.1	(0.4)	(0.0)
146	4,665	4,824	4,514	4,369	4,386	4,146	3,981	4,022	3,904	3,814	3,739	3,802	3,890	3,851	3,842	(1.4)	0.1	(1.4)
161	9,661	9,601	9,419	9,191	9,126	8,621	8,617	8,702	8,495	8,404	8,396	8,361	8,465	8,333	8,194	(0.8)	(0.5)	(1.2)
180	888	959	896	894	941	878	824	865	860	820	809	811	847	851	902	(1.4)	1.9	0.1
189	596	589	555	550	548	522	494	518	510	500	484	488	512	537	573	(0.9)	2.8	(0.3)
201	831	865	863	872	891	832	796	854	899	919	911	844	863	945	1,019	0.3	2.1	1.5
226	8,724	8,733	8,369	8,442	8,521	8,085	7,521	7,785	7,594	7,367	7,508	7,656	7,948	7,671	7,842	(1.4)	1.3	(0.8)
236	5,422	5,428	5,235	5,285	5,435	5,197	5,116	5,825	5,657	5,445	5,554	5,657	6,057	6,054	6,181	0.0	2.6	0.9
242	6,777	6,803	6,471	6,350	6,459	7,311	7,040	6,581	6,471	6,162	6,409	6,700	7,060	6,918	6,994	(0.5)	2.6	0.2
247	11,936	12,068	11,812	11,407	11,765	11,890	11,604	12,227	11,898	11,654	11,866	12,060	12,616	12,661	12,713	(0.1)	1.8	0.5
266	4,163	4,196	4,161	4,140	4,289	4,100	3,954	4,057	3,924	4,000	4,116	4,173	4,352	4,521	4,664	(0.7)	3.1	0.8
286	8,391	8,699	8,430	8,691	8,969	8,551	8,235	8,291	8,130	8,086	8,301	8,522	8,986	9,241	9,409	(1.0)	3.1	0.8
298	8,347	8,552	8,495	8,644	8,634	8,532	8,112	7,981	7,784	7,593	7,760	8,159	8,636	8,830	8,901	(1.3)	3.2	0.5
312	11,355	11,426	11,259	11,554	12,069	11,543	11,039	11,257	11,244	11,295	11,434	11,760	11,641	11,357	11,103	(0.7)	(0.3)	(0.2)
320 (3)										120	3,826	5,001	5,001	5,001	5,001	-	110.9	-
326	30,064	31,591	31,609	31,659	30,515	30,165	30,685	32,402	32,070	31,773	31,050	31,492	33,026	33,640	34,203	0.4	1.5	0.9
333	12,895	13,204	12,487	12,066	11,948	12,511	12,501	12,810	12,722	12,490	12,445	12,258	11,881	12,006	11,991	0.4	(0.8)	(0.5)
20	37,969	39,877	39,640	40,381	41,091	39,631	38,712	39,119	39,439	40,268	40,590	40,614	42,280	42,808	42,743	(0.2)	1.2	0.8
339	23,513	23,422	23,162	22,984	22,606	21,655	22,249	24,302	24,683	25,019	25,371	25,413	26,389	26,511	26,657	1.0	1.3	0.9
340 (4)	1,329	1,554	1,587	1,599	1,558	1,540	1,388	1,442	1,471	1,433	1,513	1,676	1,782	1,905	1,974	(0.8)	6.6	2.9
343	26,727	27,756	27,254	26,728	28,264	27,385	27,163	28,678	28,294	27,960	27,453	27,102	27,360	28,024	27,777	(0.1)	(0.1)	0.3
351	32,707	33,352	32,900	32,807	33,315	32,700	32,307	32,868	31,321	30,616	30,462	29,863	30,549	30,932	30,738	(0.8)	0.1	(0.4)
352 (5)								162	1,859	2,214	2,467	2,792	3,079	3,254	4,000	-	12.6	-
353														23,700	22,272	-	-	-
358 (6)	7,380	7,748	7,663	7,664	7,728	7,494	7,177	7,370	7,109	6,828	6,548	6,464	6,504	0	0	-	-	-
359 (7)	20,828	21,699	21,598	21,425	21,676	21,411	20,712	20,729	20,235	19,395	19,662	20,100	21,683	0	0	-	-	-
31	14,258	14,553	14,350	14,463	14,809	14,885	14,884	14,930	14,400	14,172	14,105	14,034	14,525	14,776	14,816	(0.4)	0.9	-
44	8,220	8,796	8,848	9,099	9,225	9,271	9,328	9,443	9,100	8,998	9,019	9,001	9,185	9,368	9,219	(0.2)	0.5	-
56	17,120	18,225	17,973	18,369	18,720	18,068	18,378	19,155	18,480	18,164	18,224	18,094	18,508	18,740	18,862	(0.3)	0.8	-
74	4,907	5,188	5,088	5,204	5,393	5,295	5,204	5,249	5,116	5,014	4,989	4,932	4,905	4,761	4,815	(0.7)	(0.8)	-
87 (8)																-	-	-
95	5,768	6,255	5,949	6,042	6,097	5,973	6,247	6,537	6,188	5,976	6,025	6,057	6,190	6,057	5,918	(0.2)	(0.2)	-
105	3,122	3,448	3,242	3,269	3,406	3,463	3,627	3,537	3,443	3,357	3,306	3,311	3,486	3,440	3,526	(0.1)	1.0	-
115	5,263	5,592	5,391	5,377	5,401	5,332	5,456	5,335	5,214	5,114	5,178	5,161	5,456	5,296	5,405	(0.5)	1.1	-
Total	428,123	447,937	439,753	429,836	436,203	428,134	422,383	432,062	426,266	423,604	430,060	433,225	445,969	444,598	444,782	0.2	1.0	0.3
Percent Change Over Prior Year		4.6	(1.8)	(2.3)	1.5	(1.8)	(1.3)	2.3	(1.3)	(0.6)	1.5	0.7	2.9	(0.3)	0.0			

(1) A toll increase occurred on or close to January 1. Refer to table 2-1 for the rate change.
(2) On 6/1/2003 Gateway was a barrier toll plaza with two-way toll collection. On 1/2/2006, toll collection changed from two-way to eastbound toll collection. This reduced the number of toll transactions.
(3) Interchange 320 (Route 29) Opened in December 2012 as an E-ZPass only interchange.
(4) Interchange 340 (Virginia Drive) opened in December 2000 as an E-ZPass only interchange.
(5) Interchange 352 (Street Road) opened in November 2010 as an eastbound only ,E-ZPass only interchange.
(6) Neshaminy Falls opened as the new eastern terminus of the East-West Mainline Ticket System in January 2016.
(7) The Delaware River Bridge mainline toll plaza became part of the Barrier System in January 2016. Toll collection changed from bi-directional to westbound only.
(8) Interchange 87 (Route 903) opened June 2015 as an E-ZPass only interchange.

2.3.2 Barrier System Transaction Trends

Average annual daily traffic trends at the Barrier System's toll plazas are shown in Tables 2-5 through 2-7 for passenger cars, commercial vehicles and total vehicles, respectively. Note that the Delaware River Bridge (Plaza 359) transactions are counted as part of the Barrier System beginning in 2016.

Total Barrier System transactions have been increasing at a faster rate than the Ticket System's. Passenger-car transactions averaged annual growth of 2.8% from 2007-2012, and 3.2% growth from 2012-2017. Higher Barrier System growth rates occur because of the following reasons: 1) these tend to be younger facilities that have historically been adding additional lane miles and sometimes additional interchanges and toll plazas. These facilities also tend to be on the fringe of urban areas and are benefiting from increasing development in their corridors. Lastly, Turnpike I-576 was exempt from scheduled toll increases in 2009 through 2012, and 2014 through 2018. The DRB was exempt from scheduled toll increases in 2017 and 2018. Overall, growth on the Barrier System was also impacted by the Great Recession, slow economic recovery, annual toll rate increases, and the temporary closure of the DRB in 2017.

Commercial-vehicle average daily transaction trends are shown in Table 2-6. They also show stronger annual growth compared to the Ticket System. Commercial-vehicle transactions averaged annual growth of 4.6% from 2007-2012, and 3.3% growth from 2012-2017.

Total Barrier System transactions increased annually by 3.0% from 2007-2012, and 3.2% from 2012-2017, as shown in Table 2-7. Growth would have been higher in 2017 if the Delaware River Bridge (plaza 359) had not been closed from January 20 through March 9, 2017.

2.4 Monthly Transactions and Gross Toll Revenue Trends

This section discusses monthly transactions and toll revenue trends by fiscal year (FY) from FY 2013-14 through FY 2017-18 for the Ticket System, Barrier System, and the total Turnpike System. The last actual data point is February 2018. Trend data is provided separately for passenger cars and commercial vehicles. The transaction data includes only toll transactions at exiting toll plazas; non-revenue transactions are not included. These tables present the relationship between the transactions and toll revenue, highlight differenced in seasonal variation. And isolate shorter-term impacts that may not be apparent in annual trends.

2.4.1 Ticket System Monthly Trends

Monthly transaction and toll revenue trends for the Ticket System are presented in Table 2-8 from FY 2014-15 through February of FY 2017-18. Passenger-car transactions increased by 2.1% in FY 2014-15 and decreased by 0.9% in FY 2016-17 compared to the previous year. The decline can be partially attributed to the leap year in 2016, resulting in one less day of transactions in February 2017 compared to 2016. Also, as previously mentioned, the DRB was closed on January 20, 2017 through March 9, 2017 due to a fracture in one of the structural support beams. Although the DRB transactions are not included in the Ticket System, negative traffic impacts were still felt on parts of the Ticket System. Prior to January 2016, the DRB transactions were reported on the Ticket System.

Table 2-5
Passenger Cars - Average Daily Transactions on the Turnpike Barrier System
Includes Revenue and Non-Revenue Vehicles

	Calendar Year (1)															Average Annual Percent Change		
Toll Location	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2007-12	2012-17	2007-17
Northeast Extension Barrier Plazas																		
Keyser Ave.	6,274	6,719	6,489	6,573	6,736	6,782	7,012	6,935	6,970	6,960	7,156	7,017	7,037	6,653	6,575	0.7	(1.1)	(0.2)
Clarks Summit	6,492	6,747	6,519	6,545	6,740	6,790	6,850	6,670	6,673	6,702	7,270	7,135	6,842	6,337	6,104	(0.1)	(1.9)	(1.0)
Subtotal	12,766	13,466	13,008	13,117	13,476	13,572	13,862	13,605	13,643	13,662	14,426	14,152	13,879	12,990	12,679	0.3	(1.5)	(0.6)
Turnpike I-376 - Beaver Valley Expressway (1)																		
East Toll 376	9,782	9,821	9,896	9,854	10,334	10,288	9,897	9,884	9,940	9,685	9,235	8,971	8,918	8,477	8,386	(1.3)	(2.8)	(2.1)
Beaver Falls Rte. 551					434	458	430	455	430	437	425	387	410	391	414	0.1	(1.1)	(0.5)
Moravia Rte. 168					756	808	706	674	778	775	728	712	700	667	656	0.5	(3.3)	(1.4)
West Toll 376	6,176	6,385	6,812	7,047	7,524	7,633	7,617	7,738	7,632	7,430	7,178	7,292	7,333	7,239	7,434	(0.3)	0.0	(0.1)
Mt. Jackson Rte. 108					1,277	1,557	1,390	1,236	1,173	1,094	1,019	953	981	982	1,021	(3.1)	(1.4)	(2.2)
Subtotal	15,958	16,206	16,708	16,901	20,326	20,744	20,040	19,987	19,953	19,419	18,587	18,315	18,342	17,756	17,912	(0.9)	(1.6)	(1.3)
Turnpike 66 - Amos K. Hutchinson Bypass (2)																		
Rte. 136				217	597	806	727	742	731	738	708	749	786	754	755	4.3	0.5	2.4
AKH Mainline	10,476	10,858	11,123	12,053	12,308	12,327	12,114	12,276	11,947	11,843	11,721	11,728	11,623	11,102	11,203	(0.8)	(1.1)	(0.9)
Route 30				861	2,889	4,617	4,645	4,921	4,809	4,686	4,625	4,625	4,599	4,544	4,496	10.2	(0.8)	4.5
Route 130				226	1,260	1,370	1,370	1,397	1,459	1,336	1,326	1,377	1,335	1,325	1,323	1.2	(0.2)	0.5
Route 66				117	580	762	738	752	774	754	753	834	815	850	827	5.4	1.9	3.6
Subtotal	10,476	10,858	11,123	13,473	17,633	19,883	19,594	20,088	19,719	19,356	19,133	19,313	19,158	18,576	18,605	1.9	(0.8)	0.5
Turnpike 43 - Mon/Fayette Expressway (3)																		
Ramp M4	30	29	26	32	39	32	22	22	147	299	315	308	313	295	292	50.7	(0.5)	22.5
M5	1,794	1,884	1,973	2,060	2,151	2,257	2,301	2,477	3,467	4,933	5,224	5,663	6,042	6,055	6,073	18.1	4.2	10.9
Ramp M15								13	109	86	81	77	88	81	82	-	(0.8)	-
Ramp M18								114	228	281	290	284	327	317	296	-	1.0	-
M19								275	3,543	4,537	4,896	5,079	5,587	5,744	5,564	-	4.2	-
Ramp M22											186	160	170	151	149	-	-	-
Ramp M26											740	769	842	796	836	-	-	-
M35 California	2,728	9,365	9,366	9,754	10,224	10,530	10,318	10,515	10,407	10,605	10,587	10,649	11,074	10,635	10,265	0.7	(0.6)	0.0
Ramp M39	1,766	906	868	963	1,030	1,052	1,050	1,067	1,073	1,056	1,046	1,006	1,015	1,026	988	0.5	(1.3)	(0.4)
Ramp M44		736	720	758	745	749	703	692	665	651	641	647	685	670	704	(2.7)	1.6	(0.6)
Ramp M48		2,543	2,790	2,936	3,213	3,301	3,356	3,471	3,478	3,537	3,511	3,579	4,054	3,812	3,830	1.9	1.6	1.8
M52	5,689	6,326	6,746	7,099	7,179	7,351	7,181	7,161	7,149	7,464	7,233	7,033	6,906	6,740	6,802	0.8	(1.8)	(0.5)
Subtotal	12,006	21,789	22,489	23,602	24,581	25,273	24,931	25,807	30,266	33,450	34,751	35,255	37,104	36,325	35,881	6.4	1.4	3.9
I-576 - Southern Beltway																		
SB Rte. 30				80	166	223	262	298	364	555	303	311	305	278	390	27.3	(6.8)	8.9
SB Westport Rd.				59	125	130	153	160	163	190	191	249	348	340	339	8.8	12.3	10.5
Rte. 22				533	2,914	3,320	3,727	3,897	4,135	4,209	4,005	4,154	4,232	4,290	4,363	7.6	0.7	4.1
Subtotal				671	3,204	3,673	4,142	4,355	4,662	4,954	4,498	4,714	4,885	4,909	5,093	9.1	0.6	4.7
Delaware River Bridge (4, 5)																		
DRB														18,450	16,234	-	-	-
All Barrier Facilities																		
Total	51,205	62,320	63,328	67,765	79,221	83,146	82,569	83,842	88,244	90,841	91,394	91,749	93,368	109,004	106,404	2.8	3.2	3.0
Percent Change Over Prior Year	10.2	21.7	1.6	7.0	16.9	5.0	(0.7)	1.5	5.2	2.9	0.6	0.4	1.8	16.7	(2.4)			

(1) Toll rate increases were generally implemented annually from 2009 through 2017. Oftentimes, I-576 was exempted from the programed toll increases. Refer to Table 2-1 for details.
(1) Toll 60 (Turnpike 376) ramp counts were not available from 2002 to 2006.
(2) Toll 66 ramp counts were not available from 2002 to 2005.
(3) On July 11, 2011, the West Virginia section of Turnpike 43 was opened.
(4) In January of 2016, toll collection on the Delaware River Bridge was converted from bidirectional to westbound only, and became a barrier plaza instead of the eastern terminus of the Ticket System.
(5) Transactions were negatively impacted from 1/1/2017 through 3/9/2017 due to the closure of the bridge because of a fracture in a structural support beam.

Table 2-6
Commercial Vehicles - Average Daily Transactions on the Turnpike Barrier System
Includes Revenue and Non-Revenue Vehicles

	Calendar Year (1)															Average Annual Percent Change		
Toll Location	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2007-12	2012-17	2007-17
Northeast Extension Barrier Plazas																		
Keyser Ave.	918	938	1,092	1,227	1,408	1,363	1,306	1,365	1,492	1,532	1,606	1,643	1,687	1,690	1,751	1.7	2.7	2.2
Clarks Summit	957	931	1,038	1,112	1,162	1,096	1,047	1,082	1,149	1,228	1,369	1,436	1,404	1,391	1,429	1.1	3.1	2.1
Subtotal	1,875	1,869	2,130	2,339	2,570	2,459	2,353	2,447	2,641	2,759	2,975	3,079	3,091	3,081	3,180	1.4	2.9	2.2
Turnpike I-376 - Beaver Valley Expressway (1)																		
East Toll 376	1,304	1,328	1,353	1,311	1,490	1,548	1,342	1,506	1,621	1,693	1,729	1,830	1,859	1,826	1,871	2.6	2.0	2.3
Beaver Falls Rte. 551					36	39	31	48	59	59	50	48	51	43	54	10.2	(1.7)	4.1
Moravia Rte. 168					96	145	60	73	92	86	73	97	82	61	76	(2.2)	(2.6)	(2.4)
West Toll 376	870	911	915	998	1,133	1,170	1,034	1,196	1,211	1,226	1,202	1,279	1,272	1,244	1,299	1.6	1.2	1.4
Mt. Jackson Rte. 108					98	108	113	98	133	164	135	148	154	152	163	11.0	(0.1)	5.3
Subtotal	2,174	2,239	2,268	2,309	2,854	3,010	2,580	2,921	3,116	3,228	3,190	3,402	3,418	3,326	3,463	2.5	1.4	2.0
Turnpike 66 - Amos K. Hutchinson Bypass (2)																		
Rte. 136				126	211	183	146	165	183	178	177	749	197	171	168	(3.3)	(1.2)	(2.3)
AKH Mainline	1,813	1,818	1,872	1,935	2,070	2,146	2,010	2,261	2,333	2,348	2,372	2,603	2,514	2,397	2,495	2.6	1.2	1.9
Route 30				142	290	282	265	300	292	315	313	306	283	279	298	1.7	(1.1)	0.3
Route 130				17	38	29	30	26	26	26	28	32	27	29	30	(7.1)	2.8	(2.3)
Route 66				5	15	16	17	18	19	22	19	21	18	18	19	7.2	(3.1)	1.9
Subtotal	1,813	1,818	1,872	2,226	2,623	2,656	2,468	2,770	2,853	2,890	2,908	3,710	3,040	2,893	3,009	2.0	0.8	1.4
Turnpike 43 - Mon/Fayette Expressway (3)																		
Ramp M4	1	1	1	1	1	2	1	1	4	7	8	8	8	7	8	40.1	2.8	20.0
M5	151	135	136	150	140	196	240	275	366	529	665	819	838	742	777	30.4	8.0	18.7
Ramp M15								0	6	7	9	13	14	8	9	-	3.4	-
Ramp M18								6	16	19	20	17	36	16	15	-	(4.4)	-
M19								182	302	437	605	679	751	661	705	-	10.1	-
Ramp M22											29	24	40	15	14	-	-	-
Ramp M26											18	22	27	21	23	-	-	-
M35 California	84	314	303	321	384	478	532	573	574	694	827	1,002	974	871	934	12.6	6.1	9.3
Ramp M39	52	23	23	26	32	34	35	40	45	44	55	61	74	64	85	6.6	14.0	10.3
Ramp M44		37	34	42	46	68	33	29	53	47	53	56	107	100	96	0.0	15.5	7.5
Ramp M48		107	82	59	65	66	60	73	85	97	102	128	165	125	132	8.4	6.4	7.4
M52	92	107	118	108	111	127	125	143	156	173	183	197	210	212	224	9.4	5.3	7.3
Subtotal	382	724	697	707	779	971	1,025	1,322	1,607	2,053	2,573	3,026	3,244	2,842	3,022	21.4	8.0	14.5
I-576 - Southern Beltway																		
SB Rte. 30				2	18	27	31	36	29	38	26	31	37	29	37	16.6	(0.5)	7.7
SB Westport Rd.				1	6	14	56	58	33	37	45	84	146	183	183	44.3	37.6	40.9
Rte. 22				24	210	249	287	311	312	322	356	391	470	426	444	8.9	6.6	7.8
Subtotal				28	234	290	375	405	375	397	427	506	653	637	664	11.2	10.8	11.0
Delaware River Bridge																		
DRB														3,127	2,836	-	-	-
All Barrier Facilities																		
Total	6,244	6,650	6,967	7,608	9,060	9,385	8,801	9,865	10,592	11,328	12,072	13,722	13,446	12,780	13,338	4.6	3.3	3.9
Percent Change Over Prior Year	(0.9)	6.5	4.8	9.2	19.1	3.6	(6.2)	12.1	7.4	6.9	6.6	13.7	(2.0)	(5.0)	4.4			

(1) Toll rate increases were generally implemented annually from 2009 through 2017. Oftentimes, I-576 was exempted from the programed toll increases. Refer to Table 2-1 for details.
(1) Toll 60 (Turnpike 376) ramp counts were not available from 2002 to 2006.
(2) Toll 66 ramp counts were not available from 2002 to 2005.
(3) On July 11, 2011, the West Virginia section of Turnpike 43 was opened.
(4) In January of 2016, toll collection on the Delaware River Bridge was converted from bidirectional to westbound only, and became a barrier plaza instead of the eastern terminus of the Ticket System.
(5) Transactions were negatively impacted from 1/1/2017 through 3/9/2017 due to the closure of the bridge because of a fracture in a structural support beam.

Table 2-7
Total Vehicles - Average Daily Transactions on the Turnpike Barrier System
Includes Revenue and Non-Revenue Vehicles

	Calendar Year (1)															Average Annual Percent Change		
Toll Location	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2007-12	2012-17	2007-17
Northeast Extension Barrier Plazas																		
Keyser Ave.	7,192	7,657	7,581	7,800	8,144	8,144	8,318	8,300	8,462	8,492	8,761	8,660	8,724	8,343	8,326	0.8	(0.4)	0.2
Clarks Summit	7,449	7,678	7,557	7,656	7,903	7,887	7,897	7,752	7,822	7,930	8,639	8,571	8,246	7,728	7,533	0.1	(1.0)	(0.5)
Subtotal	14,641	15,335	15,138	15,456	16,047	16,031	16,215	16,052	16,284	16,422	17,401	17,231	16,970	16,071	15,859	0.5	(0.7)	(0.1)
Turnpike I-376 - Beaver Valley Expressway (1)																		
East Toll 376	11,086	11,149	11,249	11,165	11,824	11,836	11,239	11,390	11,561	11,377	10,965	10,801	10,777	10,303	10,257	(0.8)	(2.1)	(1.4)
Beaver Falls Rte. 551					471	497	461	503	490	496	476	435	461	434	469	1.0	(1.1)	(0.0)
Moravia Rte. 168					853	953	766	747	869	861	801	809	782	728	732	0.2	(3.2)	(1.5)
West Toll 376	7,046	7,296	7,727	8,044	8,658	8,803	8,651	8,934	8,844	8,655	8,381	8,572	8,605	8,483	8,733	(0.0)	0.2	0.1
Mt. Jackson Rte. 108					1,375	1,665	1,503	1,334	1,306	1,258	1,154	1,101	1,135	1,134	1,184	(1.8)	(1.2)	(1.5)
Subtotal	18,132	18,445	18,976	19,210	23,180	23,754	22,620	22,908	23,070	22,648	21,776	21,717	21,760	21,082	21,375	(0.5)	(1.1)	(0.8)
Turnpike 66 - Amos K. Hutchinson Bypass (2)																		
Rte. 136				343	808	989	873	907	914	916	885	1,497	982	926	923	2.5	0.1	1.3
AKH Mainline	12,288	12,676	12,995	13,988	14,378	14,473	14,124	14,537	14,280	14,191	14,093	14,331	14,137	13,499	13,697	(0.3)	(0.7)	(0.5)
Route 30				1,003	3,178	4,899	4,910	5,221	5,101	5,001	4,938	4,930	4,883	4,823	4,795	9.5	(0.8)	4.2
Route 130				243	1,298	1,399	1,400	1,423	1,485	1,362	1,354	1,409	1,362	1,354	1,354	1.0	(0.1)	0.4
Route 66				122	595	778	754	770	793	776	771	855	833	868	846	5.5	1.7	3.6
Subtotal	12,288	12,676	12,995	15,699	20,256	22,539	22,062	22,858	22,572	22,245	22,041	23,022	22,198	21,469	21,614	1.9	(0.6)	0.7
Turnpike 43 - Mon/Fayette Expressway (3)																		
Ramp M4	31	30	28	33	40	34	23	23	151	306	323	316	321	303	300	50.4	(0.4)	22.4
M5	1,945	2,020	2,110	2,210	2,292	2,453	2,541	2,752	3,833	5,462	5,889	6,482	6,879	6,797	6,850	19.0	4.6	11.6
Ramp M15								13	115	93	90	91	102	89	91	-	(0.4)	-
Ramp M18								120	244	300	310	301	363	333	311	-	0.7	-
M19								457	3,845	4,974	5,501	5,758	6,338	6,406	6,269	-	4.7	-
Ramp M22											215	184	210	166	163	-	-	-
Ramp M26											758	791	869	817	858	-	-	-
M35 California	2,812	9,679	9,669	10,075	10,608	11,008	10,849	11,088	10,981	11,298	11,414	11,651	12,047	11,506	11,199	1.3	(0.2)	0.5
Ramp M39	1,819	929	891	989	1,062	1,087	1,085	1,107	1,118	1,101	1,101	1,067	1,089	1,090	1,073	0.7	(0.5)	0.1
Ramp M44		773	753	799	792	817	736	721	718	698	694	703	793	770	800	(2.5)	2.8	0.1
Ramp M48		2,649	2,872	2,995	3,277	3,368	3,416	3,544	3,563	3,634	3,613	3,707	4,219	3,937	3,962	2.1	1.7	1.9
M52	5,781	6,433	6,863	7,208	7,289	7,478	7,306	7,304	7,305	7,637	7,415	7,230	7,116	6,952	7,027	0.9	(1.7)	(0.4)
Subtotal	12,387	22,513	23,186	24,309	25,360	26,245	25,956	27,129	31,873	35,503	37,324	38,281	40,348	39,167	38,903	7.0	1.8	4.4
I-576 - Southern Beltway																		
SB Rte. 30				82	184	250	293	334	394	593	328	342	342	307	427	26.4	(6.4)	8.8
SB Westport Rd.				60	131	144	209	218	196	227	236	333	494	523	522	11.7	18.1	14.9
Rte. 22				557	3,124	3,569	4,014	4,208	4,447	4,531	4,361	4,546	4,702	4,716	4,807	7.7	1.2	4.4
Subtotal				699	3,438	3,963	4,517	4,760	5,037	5,351	4,925	5,220	5,538	5,546	5,756	9.3	1.5	5.3
Delaware River Bridge																		
DRB														18,450	16,234	-	-	-
All Barrier Facilities																		
Total	57,448	68,970	70,295	75,373	88,281	92,531	91,371	93,707	98,836	102,169	103,467	105,471	106,814	121,785	119,741	3.0	3.2	3.1
Percent Change Over Prior Year	8.9	20.1	1.9	7.2	17.1	4.8	(1.3)	2.6	5.5	3.4	1.3	1.9	1.3	14.0	(1.7)			

(1) Toll rate increases were generally implemented annually from 2009 through 2017. Oftentimes, I-576 was exempted from the programed toll increases. Refer to Table 2-1 for details.
(1) Toll 60 (Turnpike 376) ramp counts were not available from 2002 to 2006.
(2) Toll 66 ramp counts were not available from 2002 to 2005.
(3) On July 11, 2011, the West Virginia section of Turnpike 43 was opened.
(4) In January of 2016, toll collection on the Delaware River Bridge was converted from bidirectional to westbound only, and became a barrier plaza instead of the eastern terminus of the Ticket System.
(5) Transactions were negatively impacted from 1/1/2017 through 3/9/2017 due to the closure of the bridge because of a fracture in a structural support beam.

Table 2-8
Ticket System (Including Gateway Barrier Plaza) - Monthly Transaction and Revenue Trends
Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Passenger Cars

Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	11,720	2.3	11,995	0.1	12,013	0.1	12,029
July	12,128	3.8	12,583	(3.1)	12,196	(1.4)	12,020
August	12,285	2.0	12,525	(1.4)	12,348	0.1	12,357
September	11,123	2.2	11,362	1.0	11,480	(0.8)	11,386
October	11,876	1.6	12,064	(1.9)	11,836	(0.1)	11,826
November	10,760	4.8	11,281	0.2	11,301	(1.0)	11,185
December	10,902	3.7	11,302	(2.6)	11,005	(2.5)	10,725
January	9,619	(0.1)	9,605	4.4	10,033	(1.8)	9,851
February	9,101	7.0	9,738	(5.3)	9,226	1.2	9,339
March	10,627	5.1	11,168	(5.2)	10,589		
April	11,381	(3.8)	10,953	2.7	11,247		
May	11,978	(2.2)	11,717	1.2	11,855		
Total Year	133,500	2.1	136,294	(0.9)	135,128		
June - Feb	99,514	3.0	102,456	(1.0)	101,437	(0.7)	100,717

Commercial Vehicles

Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	1,852	6.7	1,976	2.6	2,028	(0.1)	2,025
July	1,910	4.6	1,998	(3.5)	1,927	(1.5)	1,898
August	1,862	4.8	1,951	6.7	2,082	0.1	2,084
September	1,838	4.7	1,925	0.8	1,941	(2.0)	1,903
October	1,960	1.9	1,997	(3.4)	1,930	3.6	2,000
November	1,648	6.1	1,748	1.6	1,777	3.3	1,835
December	1,700	3.7	1,763	(1.7)	1,732	(1.1)	1,713
January	1,606	(3.3)	1,552	5.8	1,642	5.8	1,738
February	1,518	5.8	1,606	(5.8)	1,514	6.6	1,614
March	1,763	6.0	1,869	(3.9)	1,796		
April	1,863	(0.3)	1,858	(2.8)	1,807		
May	1,910	0.9	1,927	3.9	2,003		
Total Year	21,430	3.5	22,172	0.0	22,179		
June - Feb	15,894	3.9	16,517	0.3	16,573	1.4	16,811

Total Vehicles

Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	13,572	2.9	13,971	0.5	14,041	0.1	14,054
July	14,039	3.9	14,581	(3.1)	14,123	(1.4)	13,919
August	14,147	2.3	14,476	(0.3)	14,430	0.1	14,441
September	12,961	2.5	13,287	1.0	13,421	(1.0)	13,289
October	13,836	1.6	14,061	(2.1)	13,766	0.4	13,826
November	12,408	5.0	13,029	0.4	13,078	(0.4)	13,019
December	12,602	3.7	13,065	(2.5)	12,738	(2.3)	12,439
January	11,225	(0.6)	11,158	4.6	11,675	(0.7)	11,588
February	10,619	6.8	11,345	(5.3)	10,740	2.0	10,953
March	12,390	5.2	13,037	(5.0)	12,384		
April	13,244	(3.3)	12,812	1.9	13,054		
May	13,888	(1.8)	13,644	1.6	13,858		
Total Year	154,930	2.3	158,466	(0.7)	157,307		
June - Feb	115,408	3.1	118,973	(0.8)	118,010	(0.4)	117,528

Toll Revenue (in $1,000s)

Passenger Cars

Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	$44,313	6.9	$47,358	6.4	$50,374	8.9	$54,875
July	47,889	10.2	52,753	5.5	55,659	5.0	58,459
August	49,295	5.9	52,191	1.3	52,888	8.1	57,199
September	39,577	10.7	43,823	9.6	48,028	3.7	49,807
October	42,096	8.2	45,567	5.9	48,264	5.5	50,936
November	39,415	10.7	43,632	5.6	46,084	5.9	48,799
December	38,616	9.0	42,110	5.4	44,375	3.9	46,096
January	33,269	8.1	35,973	9.8	39,489	4.0	41,070
February	30,588	15.0	35,190	2.0	35,898	9.1	39,149
March	38,006	13.9	43,273	(0.9)	42,900		
April	42,423	1.4	42,999	14.5	49,234		
May	47,368	1.7	48,163	7.4	51,721		
Total Year	$492,853	8.2	$533,031	6.0	$564,915		
June - Feb	$365,056	9.2	$398,596	5.6	$421,060	6.0	$446,391

Commercial Vehicles

Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	$32,122	12.1	$36,014	8.7	$39,137	4.7	$40,969
July	32,910	9.5	36,048	4.1	37,543	2.5	38,493
August	32,392	9.1	35,345	12.5	39,776	6.6	42,397
September	31,894	9.2	34,839	7.8	37,555	3.4	38,829
October	33,863	6.5	36,072	1.3	36,541	12.0	40,913
November	28,909	9.5	31,665	7.0	33,896	10.8	37,560
December	29,865	6.8	31,906	6.0	33,828	6.0	35,866
January	30,336	3.4	31,378	9.0	34,189	14.2	39,045
February	28,569	13.2	32,343	(2.2)	31,628	17.3	37,084
March	33,479	10.8	37,096	2.3	37,948		
April	34,384	6.6	36,662	1.8	37,308		
May	34,854	7.7	37,552	6.9	40,145		
Total Year	$383,576	8.7	$416,919	5.4	$439,495		
June - Feb	$280,859	8.8	$305,610	6.0	$324,093	8.4	$351,157

Total Vehicles

Month	2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	$76,435	9.1	$83,371	7.4	$89,511	7.1	$95,844
July	80,798	9.9	88,801	5.0	93,201	4.0	96,952
August	81,686	7.2	87,536	5.9	92,665	7.5	99,596
September	71,471	10.1	78,662	8.8	85,583	3.6	88,636
October	75,959	7.5	81,639	3.9	84,805	8.3	91,850
November	68,323	10.2	75,297	6.2	79,980	8.0	86,360
December	68,480	8.1	74,016	5.7	78,203	4.8	81,962
January	63,605	5.9	67,351	9.4	73,678	8.7	80,116
February	59,157	14.2	67,533	(0.0)	67,526	12.9	76,233
March	71,485	12.4	80,369	0.6	80,848		
April	76,807	3.7	79,661	8.6	86,542		
May	82,222	4.2	85,715	7.2	91,866		
Total Year	$876,429	8.4	$949,950	5.7	$1,004,410		
June - Feb	$645,915	9.0	$704,206	5.8	$745,154	7.0	$797,547

NOTES:
(1) Toll increases occur every year with exceptions. Refer to Table 2-1 for details.
(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.
(3) Abnormally severe winter weather negatively impacted traffic and toll revenue in January and February 2014, particularly among passenger cars.
(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(5) Before January 2016, Delaware River Bridge traffic and revenue were included in Ticket System reporting.

In FY 2017-18, through February, passenger-car transactions decreased by 0.7% compared to the same period in FY 2016-17. The months of September and December in 2017 both had one less weekday compared to the same months in 2016. The months of November 2017 through January 2018 were negatively impacted by abnormally severe winter weather.

Growth in passenger-car toll revenue was much stronger than growth in transactions due to annual toll rate increases. Passenger-car toll revenue increased 8.2% in FY 2015-16 and 6.0% in FY 2016-17. In the current fiscal year, passenger-car toll revenue on the Ticket System increased by 6% through February 2018 compared to the same period in the previous year.

Commercial-vehicle transactions increased 3.5% in in FY 2014-15, and 0.0% in FY 2015-16. Year-to-date, FY 2017-18 commercial-vehicle transactions increased by 1.4% over the same period in the prior year. Annual toll revenue increased 8.7% in FY 2015-16, 5.4% in FY 2016-17, and 8.4% in FY 2017-18 through February 2018. These increases in toll revenue were driven primarily by annual toll rate increases and by increased transactions.

Total Ticket System transactions increased by 2.3% in FY 2015-16 and decreased by 0.7% in FY 2016-17. In FY 2017-18, transactions through February 2018 decreased compared to the same period in the prior year by 0.4%. Total Ticket System toll revenue increased by 8.4% in FY 2015-16, and by 5.7% in FY 2016-17. Toll revenue year to date in FY 2017-18 (through February 2018) increased by 7% compared to the same period in the prior year.

2.4.2 Barrier System Monthly Trends

Table 2-9 presents monthly transaction and toll revenue trends for the Barrier System. Passenger-car transactions increased by 1.5% in FY 2014-15, by 7.9% in FY 2015-16, and by 6.8% in FY 2016-17. Passenger-car transactions increased by 1.5% in FY 2017-18 year-to-date compared to the previous year. A positive impact in toll transactions can be seen from January 2016 through December 2016 due to the addition of the Delaware River Bridge (plaza 359) transactions to the Barrier System. The negative impact associated with the temporary DRB closure can be seen in January through March 2017. The large percent increases in transactions in January and February 2018 compared to the prior year are due to the returned traffic on the DRB. September and December 2017 had one less weekday compared to the same months in 2016.

Passenger-car toll revenue increased by 37.5% in FY 2015-16, and by 33.7% in FY 2016-17. In the FY 2017-18, passenger-car toll revenue increased by 6.4% through February 2018 compared to the same period in the previous year. These large toll revenue increases are due to the annual toll rate increases and to inclusion of the DRB toll revenue into the Barrier System.

Commercial-vehicle transactions increased 9.2% in FY 2015-16, and by 7.3% in FY 2016-17. Year-to-date, FY 2017-18 commercial-vehicle transactions increased 9.7% over the same period in the prior year. Commercial-vehicle toll revenue increased by 49.9% in FY 2015-16, and by 39.0% in FY 2016-17. FY 2017-18 commercial-vehicle toll revenue increased by 13.8% through February 2018. These increases in toll revenue were driven by increased transactions, particularly the inclusion of the DRB, and by annual toll increases.

Table 2-9

Combined Barrier Facilities - Monthly Transaction and Revenue Trends

Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Month	Passenger Cars 2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	2,816	1.3	2,854	18.5	3,382	0.8	3,409
July	3,009	1.7	3,060	17.2	3,587	(2.4)	3,502
August	3,140	(2.6)	3,059	18.3	3,619	(0.5)	3,600
September	2,851	0.3	2,858	16.8	3,337	0.0	3,338
October	3,001	0.1	3,004	13.2	3,399	(0.1)	3,395
November	2,597	3.3	2,684	17.7	3,158	(0.8)	3,133
December	2,589	2.7	2,658	14.6	3,046	(0.8)	3,021
January	2,286	16.8	2,670	(3.5)	2,576	4.5	2,692
February	2,148	27.5	2,738	(20.3)	2,181	20.1	2,619
March	2,585	22.3	3,160	(10.5)	2,827		
April	2,728	15.5	3,152	0.0	3,152		
May	2,942	14.8	3,378	0.8	3,405		
Total Year	32,692	7.9	35,274	6.8	37,671		
June - Feb	24,437	4.7	25,584	10.6	28,286	1.5	28,708

Month	Commercial Vehicles 2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	409	3.0	421	23.9	522	5.2	549
July	441	(2.1)	431	14.1	492	5.9	521
August	439	(0.0)	439	21.7	534	8.1	578
September	437	0.5	439	14.1	501	5.5	529
October	452	0.2	452	10.4	500	9.5	547
November	363	3.8	377	21.9	459	6.2	488
December	347	2.0	353	19.1	421	2.7	432
January	329	19.8	394	(5.7)	372	17.7	438
February	304	28.0	389	(22.5)	302	39.2	420
March	379	23.7	468	(10.3)	420		
April	399	19.0	475	(2.8)	462		
May	415	22.1	507	6.5	539		
Total Year	4,714	9.2	5,147	7.3	5,524		
June - Feb	3,521	5.0	3,697	11.0	4,103	9.7	4,501

Month	Total Vehicles 2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	3,225	1.6	3,275	19.2	3,904	1.4	3,958
July	3,450	1.2	3,491	16.9	4,079	(1.4)	4,023
August	3,579	(2.3)	3,498	18.7	4,154	0.6	4,178
September	3,288	0.3	3,297	16.4	3,839	0.7	3,867
October	3,452	0.1	3,456	12.8	3,899	1.1	3,942
November	2,960	3.4	3,060	18.2	3,617	0.1	3,620
December	2,936	2.6	3,011	15.1	3,467	(0.4)	3,453
January	2,616	17.2	3,065	(3.8)	2,948	6.2	3,129
February	2,453	27.5	3,127	(20.6)	2,483	22.4	3,039
March	2,963	22.5	3,629	(10.5)	3,247		
April	3,127	16.0	3,627	(0.4)	3,614		
May	3,357	15.7	3,885	1.5	3,945		
Total Year	37,406	8.1	40,422	6.9	43,195		
June - Feb	27,958	4.7	29,281	10.6	32,389	2.5	33,209

Toll Revenue (in $1,000s)

Month	Passenger Cars 2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	$3,445	5.5	$3,633	89.9	$6,899	1.5	$7,002
July	3,638	6.5	3,873	88.9	7,316	(0.7)	7,263
August	3,771	2.9	3,881	87.9	7,291	1.7	7,413
September	3,465	3.8	3,596	87.5	6,741	1.1	6,813
October	3,615	4.1	3,764	79.4	6,754	1.7	6,870
November	3,120	8.4	3,381	87.9	6,352	(0.5)	6,323
December	3,151	5.9	3,336	85.5	6,187	1.0	6,249
January	2,869	78.8	5,130	(4.8)	4,885	16.1	5,671
February	2,695	102.0	5,443	(43.8)	3,059	77.4	5,428
March	3,271	90.0	6,215	(17.4)	5,133		
April	3,449	81.9	6,276	2.8	6,449		
May	3,711	81.5	6,736	1.0	6,806		
Total Year	$40,201	37.5	$55,263	33.7	$73,872		
June - Feb	$29,769	21.1	$36,037	54.0	$55,484	6.4	$59,030

Month	Commercial Vehicles 2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	$1,516	5.6	$1,601	120.1	$3,524	4.3	$3,674
July	1,627	0.3	1,631	104.3	3,333	3.6	3,454
August	1,602	2.2	1,638	117.4	3,561	7.1	3,813
September	1,596	2.3	1,634	109.9	3,429	3.3	3,543
October	1,644	4.3	1,714	95.6	3,353	9.9	3,686
November	1,341	6.7	1,432	123.8	3,204	5.6	3,384
December	1,290	5.2	1,357	124.9	3,053	2.7	3,133
January	1,273	114.4	2,728	(11.7)	2,408	32.0	3,177
February	1,184	134.8	2,779	(53.1)	1,305	133.5	3,046
March	1,461	120.9	3,227	(17.2)	2,671		
April	1,529	115.1	3,288	(1.7)	3,232		
May	1,559	116.6	3,378	7.2	3,622		
Total Year	$17,621	49.9	$26,406	39.0	$36,694		
June - Feb	$13,072	26.3	$16,514	64.5	$27,169	13.8	$30,911

Month	Total Vehicles 2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	$4,961	5.5	$5,234	99.1	$10,423	2.4	$10,677
July	5,265	4.5	5,504	93.5	10,649	0.6	10,717
August	5,373	2.7	5,518	96.6	10,851	3.4	11,226
September	5,062	3.3	5,229	94.5	10,171	1.8	10,355
October	5,259	4.2	5,478	84.5	10,107	4.4	10,556
November	4,461	7.9	4,812	98.6	9,556	1.6	9,706
December	4,440	5.7	4,693	96.9	9,240	1.5	9,382
January	4,141	89.7	7,858	(7.2)	7,293	21.3	8,848
February	3,879	112.0	8,222	(46.9)	4,364	94.2	8,474
March	4,732	99.5	9,442	(17.3)	7,804		
April	4,978	92.1	9,563	1.2	9,680		
May	5,271	91.9	10,114	3.1	10,427		
Total Year	$57,822	41.2	$81,670	35.4	$110,566		
June - Feb	$42,841	22.7	$52,550	57.3	$82,654	8.8	$89,941

NOTES:

(1) Toll increases occur every year with exceptions. Refer to Table 2-1 for details.

(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.

(3) Abnormally severe winter weather negatively impacted traffic and toll revenue in January and February 2014, particularly among passenger cars.

(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.

(5) Before January 2016, Delaware River Bridge traffic and revenue were included in Ticket System reporting.

Total Barrier System transactions increased by 8.1% in FY 2015-16, and by 6.9% in FY 2016-17. In FY 2017-18, transactions through February 2018 increased over the same time-period in the prior year by 2.5%. Total Barrier System toll revenue increased by 41.2% in FY 2015-16, and by 35.4% in FY 2016-17. Toll revenue year to date in FY 2017-18 has increased by 8.8% compared to the same period in the prior year. Positive impacts to the Barrier System are seen from January 2016 through December 2016 due to adding the Delaware River Bridge transactions to Barrier System (they were previously counted in the Ticket System). The recovery of traffic on the DRB is seen in January and February 2017 compared to the same period in the prior year.

2.4.3 Total Turnpike System Monthly Trends

Table 2-10 presents the monthly transaction and toll revenue trends for the total Turnpike System. Passenger-car transactions increased by 3.2% in FY 2015-16, and 0.7% in FY 2016-17. Passenger-car transactions decreased by 0.2% in FY 2017-18 year-to-date compared to the previous year. Passenger-car toll revenue increased at a faster annual rate than transactions due to toll increases that were implemented each year. Passenger-car toll revenue increased 10.4% in FY 2015-16, 8.6% in FY 2016-17, and 6.1% through February 2018 compared to the same time-period in the previous year.

Commercial-vehicle transactions increased 4.5% in FY 2015-16, 1.4% in FY 2016-17, and 3.1% in FY 2017-18 over the same period in the prior year. Toll revenue increased 10.5% in FY 2015-16, 7.4% in FY 2016-17, and 8.8% in FY 2017-18 through February 2018.

Total transactions increased 3.4% in FY 2015-16, 0.8% in FY 2016-17, and 0.2% in FY 2017-18 over the same period in the prior year. Toll revenue increased 10.4% in FY 2015-16, 8.1% in FY 2016-17, and 7.2% in FY 2017-18 through February 2018.

Transactions and toll revenue were negatively impacted by the temporary closure of the DRB from January 20 through March 9, 2017. CDM Smith estimated that the DRB closure caused a total Systemwide decrease of 1.5 million transactions and $12.1 million in toll revenue in FY 2016-17.

2.5 Comparison of Commercial Activity and Total Turnpike Toll Transactions

Table 2-11 presents a comparison between three measures of economic growth, and transaction growth on the Turnpike System from 2010 through 2017. Annual percent changes in Turnpike System transactions over the prior year are compared to annual percent changes in the U.S. gross domestic product (GDP), the Tri-State (NJ, NY, PA) gross regional product (GRP), and the PA gross state product (GSP). U.S. gross domestic product (GDP) is actual through 2017, while the gross regional product and gross state product data for 2017 are estimates.

Passenger-car transactions increased by 2.3 percent in 2015, 3.1 percent in 2016 and decreased by 1.1 percent in 2017. Commercial vehicle growth, increased 3.9 percent in 2015, 4.2 percent in 2016 and 0.2 percent in 2017. The U.S. GDP, Tri-State GRP, and PA GSP all experienced growth in 2017.

While there is a correlation between economic activity and Turnpike System toll transactions, it is likely that transactions are also being dampened by the annual toll rate increases that have been implemented since 2009. 2017 Turnpike transactions were also negatively impacted by the temporary closure of the DRB from January 20, 2017 through March 9, 2017.

Table 2-10
Total Turnpike System - Monthly Transaction and Revenue Trends
Transactions Include Only Toll Transactions - Non-Revenue Transactions Are Not Included

Toll Transactions (in 1,000s)

Month	Passenger Cars 2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	14,535	2.2	14,849	3.7	15,395	0.3	15,438
July	15,138	3.3	15,643	0.9	15,783	(1.7)	15,522
August	15,425	1.0	15,584	2.5	15,967	(0.1)	15,957
September	13,974	1.8	14,220	4.2	14,817	(0.6)	14,724
October	14,876	1.3	15,067	1.1	15,236	(0.1)	15,221
November	13,358	4.5	13,965	3.5	14,458	(1.0)	14,317
December	13,491	3.5	13,960	0.7	14,051	(2.2)	13,746
January	11,905	3.1	12,276	2.7	12,609	(0.5)	12,542
February	11,249	10.9	12,477	(8.6)	11,407	4.8	11,958
March	13,211	8.5	14,328	(6.4)	13,416		
April	14,109	(0.0)	14,105	2.1	14,400		
May	14,921	1.2	15,095	1.1	15,260		
Total Year	166,192	3.2	171,569	0.7	172,799		
June - Feb	123,951	3.3	128,040	1.3	129,723	(0.2)	129,425

Month	Commercial Vehicles 2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	2,261	6.0	2,398	6.4	2,550	1.0	2,575
July	2,351	3.3	2,429	(0.4)	2,419	(0.0)	2,419
August	2,301	3.9	2,390	9.5	2,616	1.7	2,662
September	2,275	3.9	2,364	3.3	2,442	(0.4)	2,431
October	2,412	1.6	2,450	(0.8)	2,429	4.9	2,547
November	2,011	5.7	2,125	5.2	2,236	3.9	2,323
December	2,046	3.4	2,116	1.7	2,153	(0.4)	2,146
January	1,935	0.6	1,947	3.4	2,014	8.0	2,175
February	1,822	9.5	1,996	(9.0)	1,815	12.0	2,034
March	2,142	9.2	2,338	(5.2)	2,216		
April	2,262	3.1	2,333	(2.8)	2,268		
May	2,325	4.7	2,434	4.5	2,542		
Total Year	26,144	4.5	27,319	1.4	27,703		
June - Feb	19,415	4.1	20,214	2.3	20,676	3.1	21,312

Month	Total Vehicles 2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	16,797	2.7	17,246	4.1	17,945	0.4	18,013
July	17,489	3.3	18,072	0.7	18,202	(1.4)	17,942
August	17,726	1.4	17,974	3.4	18,583	0.2	18,619
September	16,249	2.1	16,584	4.1	17,260	(0.6)	17,156
October	17,288	1.3	17,517	0.8	17,665	0.6	17,768
November	15,368	4.7	16,090	3.8	16,695	(0.3)	16,640
December	15,537	3.5	16,076	0.8	16,204	(1.9)	15,891
January	13,840	2.8	14,222	2.8	14,622	0.7	14,718
February	13,072	10.7	14,472	(8.6)	13,223	5.8	13,992
March	15,353	8.5	16,666	(6.2)	15,632		
April	16,371	0.4	16,438	1.4	16,668		
May	17,245	1.6	17,529	1.6	17,802		
Total Year	192,336	3.4	198,887	0.8	200,501		
June - Feb	143,366	3.4	148,254	1.4	150,399	0.2	150,737

Toll Revenue (in $1,000s)

Month	Passenger Cars 2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	$47,759	6.8	$50,991	12.3	$57,273	8.0	$61,877
July	51,527	9.9	56,625	11.2	62,975	4.4	65,722
August	53,065	5.7	56,072	7.3	60,179	7.4	64,611
September	43,042	10.2	47,419	15.5	54,770	3.4	56,620
October	45,711	7.9	49,331	11.5	55,018	5.1	57,806
November	42,534	10.5	47,013	11.5	52,436	5.1	55,122
December	41,766	8.8	45,446	11.3	50,563	3.5	52,345
January	36,138	13.7	41,103	8.0	44,374	5.3	46,741
February	33,282	22.1	40,633	(4.1)	38,957	14.4	44,576
March	41,277	19.9	49,488	(2.9)	48,033		
April	45,872	7.4	49,275	13.0	55,683		
May	51,080	7.5	54,899	6.6	58,526		
Total Year	$533,054	10.4	$588,295	8.6	$638,787		
June - Feb	$394,825	10.1	$434,633	9.6	$476,545	6.1	$505,421

Month	Commercial Vehicles 2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	$33,638	11.8	$37,614	13.4	$42,661	4.6	$44,643
July	34,536	9.1	37,680	8.5	40,876	2.6	41,947
August	33,994	8.8	36,983	17.2	43,337	6.6	46,210
September	33,490	8.9	36,472	12.4	40,984	3.4	42,371
October	35,507	6.4	37,786	5.6	39,895	11.8	44,599
November	30,250	9.4	33,096	12.1	37,100	10.4	40,944
December	31,154	6.8	33,264	10.9	36,880	5.7	39,000
January	31,609	7.9	34,106	7.3	36,597	15.4	42,222
February	29,753	18.0	35,122	(6.2)	32,933	21.9	40,130
March	34,940	15.4	40,322	0.7	40,619		
April	35,912	11.2	39,950	1.5	40,540		
May	36,413	12.4	40,930	6.9	43,767		
Total Year	$401,197	10.5	$443,325	7.4	$476,188		
June - Feb	$293,931	9.6	$322,123	9.0	$351,263	8.8	$382,067

Month	Total Vehicles 2014-15	% Chg	2015-16	% Chg	2016-17	% Chg	2017-18
June	$81,397	8.9	$88,606	12.8	$99,935	6.6	$106,521
July	86,063	9.6	94,305	10.1	103,851	3.7	107,669
August	87,060	6.9	93,054	11.2	103,516	7.1	110,821
September	76,532	9.6	83,891	14.1	95,754	3.4	98,991
October	81,218	7.3	87,117	8.9	94,912	7.9	102,405
November	72,785	10.1	80,109	11.8	89,536	7.3	96,066
December	72,921	7.9	78,709	11.1	87,443	4.5	91,344
January	67,747	11.0	75,209	7.7	80,971	9.9	88,964
February	63,035	20.2	75,755	(5.1)	71,890	17.8	84,707
March	76,218	17.8	89,811	(1.3)	88,653		
April	81,784	9.1	89,224	7.8	96,223		
May	87,493	9.5	95,829	6.7	102,293		
Total Year	$934,251	10.4	$1,031,620	8.1	$1,114,975		
June - Feb	$688,756	9.9	$756,756	9.4	$827,807	7.2	$887,488

NOTES:
(1) Toll increases occur every year with exceptions. Refer to Table 2-1 for details.
(2) Leap year occurred in 2016, resulting in negative traffic and toll revenue impacts in February 2017 compared to February 2016.
(3) Abnormally severe winter weather negatively impacted traffic and toll revenue in January and February 2014, particularly among passenger cars.
(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(5) Before January 2016, Delaware River Bridge traffic and revenue were included in Ticket System reporting.

Table 2-11
Near-term Measures of Commercial Activity and Growth in Total Turnpike System Transactions

Percent Change over Prior Year

Calendar Year	Gross Domestic Product Growth[1] (U.S.)	Gross Regional Product Growth[1] (NJ, NY, PA)	Gross State Product Growth[1] (PA)	PA Turnpike System Percent Transaction Growth[2] Passenger Cars	Commercial Vehicles	All Vehicles
2010	2.5%	2.6%	2.7%	1.0%	4.0%	1.3%
2011	1.6%	0.4%	1.3%	-1.1%	1.0%	-0.9%
2012	2.2%	2.5%	1.6%	0.3%	0.6%	0.3%
2013	1.7%	0.6%	1.6%	0.6%	3.0%	0.9%
2014	2.6%	1.5%	2.0%	0.0%	4.2%	0.5%
2015	2.9%	1.9%	2.3%	2.3%	3.9%	2.5%
2016	1.5%	0.5%	0.6%	3.1%	4.2%	3.3%
2017	2.3%	1.6%	1.9%	-1.1%	0.2%	-0.9%

(1) The percent changes in U.S. GDP, GRP, and GSP are based on chained 2009 dollars. The U.S. GDP is actual through 2017. The GRP and GSP are actual through 2016. Actual data was obtained from the U.S. Bureau of Economic Analysis. Forecast data was from Moody's Analytics baseline forecast (April 2018 for regional, February 2018 for Pennsylvania).

(2) Turnpike System growth rates are actual through 2017.

2.6 Annual Transaction and Gross Toll Revenue Trends

Table 2-12 provides a summary of annual total Turnpike System transactions and adjusted gross toll revenue trends from FY 1996-97 through FY 2016-17. Note that transactions and adjusted toll revenue in Table 2-12 reflect final audited Turnpike System totals including adjustments and discounts available from the Commercial Volume Discount Program described earlier in this chapter.

The Turnpike System has experienced decreasing annual growth in transactions and consistent growth in toll revenue. Transaction growth likely decreased in response to the Great Recession, which officially lasted from December 2007 to June 2009, a slow economic recovery, and annual toll rate increases since 2009. Toll revenue increase annually primarily due to the toll rate increases.

Between FY 1996-97 and FY 2006-07, total Turnpike System transactions increased from 144.1 million to 185.4 million, an average annual increase of 2.6%. From FY 2006-07 to FY 2016-17, total turnpike transactions grew from 185.4 million to 200.5 million, an average annual increase of 0.8%. In the 20 years between FY 1996-97 and FY 2016-17, total Turnpike System transactions increased by an annual average of 1.7%. Adjusted Turnpike System toll revenue increased by 6.4% per year from FY 1996-97 through FY 2006-07, by 6.5% per year from FY 2006-07 through FY 2016-17, and by 6.4% per year from FY 1996-97 through FY 2016-17.

Table 2-12
Annual Systemwide Traffic and Adjusted Toll Revenue Trends
Pennsylvania Turnpike System
(Values in Thousands)

	Transactions						Adjusted Toll Revenue					
Fiscal [1] Year	Cars	Percent Change Over Prior Year	Trucks	Percent Change Over Prior Year	Total	Percent Change Over Prior Year	Cars	Percent Change Over Prior Year	Trucks	Percent Change Over Prior Year	Total	Percent Change Over Prior Year
1996-97	126,654		17,479		144,133		179,303		140,837		320,140	
1997-98	132,472	4.6	18,627	6.6	151,099	4.8	186,290	3.9	149,036	5.8	335,326	4.7
1998-99	136,399	3.0	19,833	6.5	156,232	3.4	191,804	3.0	158,761	6.5	350,565	4.5
1999-00	138,762	1.7	21,341	7.6	160,103	2.5	195,301	1.8	172,035	8.4	367,336	4.8
2000-01	141,033	1.6	21,278	(0.3)	162,311	1.4	193,563	(0.9)	172,337	0.2	365,900	(0.4)
2001-02	150,496	6.7	22,298	4.8	172,794	6.5	212,650	9.9	163,101	(5.4)	375,751	2.7
2002-03	156,220	3.8	23,179	4.0	179,399	3.8	219,201	3.1	168,021	3.0	387,222	3.1
2003-04	163,612	4.7	24,407	5.3	188,019	4.8	228,515	4.2	180,229	7.3	408,744	5.6
2004-05 [1]	163,316	(0.2)	25,109	2.9	188,425	0.2	309,032	35.2	236,126	31.0	545,158	33.4
2005-06	160,590	(1.7)	25,311	0.8	185,901	(1.3)	321,268	4.0	267,369	13.2	588,637	8.0
2006-07	160,107	(0.3)	25,316	0.0	185,423	(0.3)	322,781	0.5	269,861	0.9	592,642	0.7
2007-08	164,097	2.5	25,455	0.5	189,552	2.2	332,035	2.9	265,637	(1.6)	597,672	0.8
2008-09 [1]	162,638	(0.9)	23,583	(7.4)	186,220	(1.8)	356,345	7.3	260,047	(2.1)	616,392	3.1
2009-10 [1]	163,599	0.6	22,933	(2.8)	186,531	0.2	415,981	16.7	302,057	16.2	718,038	16.5
2010-11 [1]	165,231	1.0	23,812	3.8	189,043	1.3	435,752	4.8	328,105	8.6	763,856	6.4
2011-12 [1]	164,955	(0.2)	24,125	1.3	189,080	0.0	455,133	4.4	342,646	4.4	797,779	4.4
2012-13 [1]	163,690	(0.8)	24,207	0.3	187,897	(0.6)	471,514	3.6	350,226	2.2	821,740	3.0
2013-14 [1]	163,788	0.1	24,891	2.8	188,679	0.4	497,671	5.5	368,395	5.2	866,066	5.4
2014-15 [1]	166,192	1.5	26,144	5.0	192,336	1.9	533,054	7.1	401,197	8.9	934,251	7.9
2015-16 [1]	171,569	3.2	27,319	4.5	198,887	3.4	588,295	10.4	443,325	10.5	1,031,620	10.4
2016-17 [1]	172,799	0.7	27,703	1.4	200,501	0.8	638,787	8.6	476,188	7.4	1,114,975	8.1

Average Annual Percent Change

	Transactions			Adjusted Toll Revenue		
Fiscal Year	Cars	Trucks	Total	Cars	Trucks	Total
FY 1996-97 - FY 2006-07	2.4	3.8	2.6	6.1	6.7	6.4
FY 2006-07 - FY 2016-17	0.8	0.9	0.8	7.1	5.8	6.5
FY 1996-97 - FY 2016-17	1.6	2.3	1.7	6.6	6.3	6.4

(1) PTC Fiscal Years begin June 1 and end May 31.
(2) A toll increase occurred during this fiscal year. Refer to table 2-1.

Figure 2-5 illustrates Turnpike System historical transactions and adjusted gross toll revenue on an annual basis from FY 1997-98 to FY 2016-17. Toll increases are represented by a black star over the fiscal year in which the increase was implemented. Figure 2-5 clearly shows the greater rate of growth in Turnpike System toll revenue compared to the comparatively flat growth in toll transactions since 2009. The low transaction growth rates are attributed to annual toll rate increases since 2009 and a slow economic recovery from the Great recession of 2007.

2.7 E-ZPass Market Share

Table 2-13 shows the historical growth in E-ZPass transactions as a percent of total toll transactions on the Turnpike System. Over the past 12 years, passenger-car E-ZPass market share has increased by 35.5 percentage points, from 40.4% to 76.9% of total toll transactions. Commercial-vehicle market share growth has been nearly as large, increasing by 29.4 percentage points, from 60.2% in FY 2005-06 to 89.6% in FY 2016-17. Total Turnpike System E-ZPass usage has grown from 43.2% to 78.7 percent from FY 2005-06 to FY 2016-17.

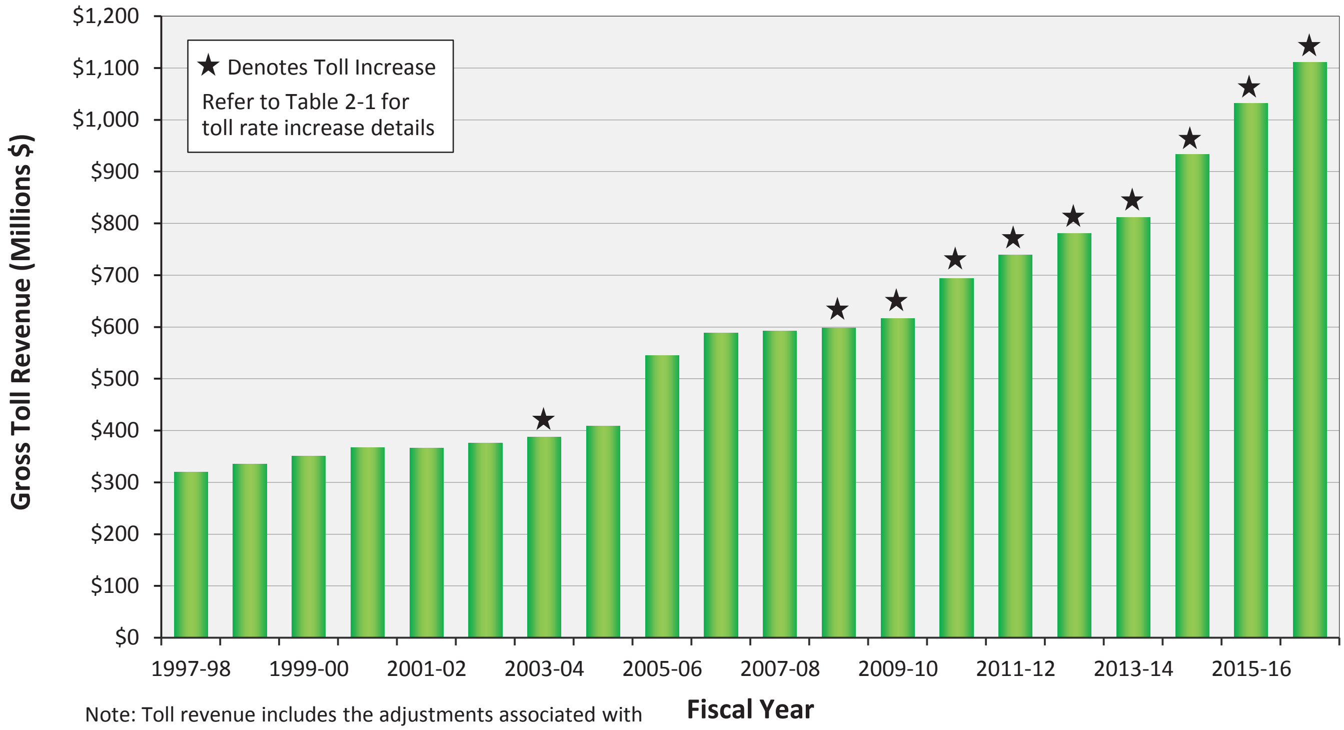
Table 2-14 presents monthly E-ZPass market share trends on the Ticket System for FY 2016-17. It is apparent from a comparison of Tables 2-13 and 2-14 that the E-ZPass participation was slightly higher on the Ticket System than on the Turnpike System as a whole. Ticket System E-ZPass penetration averaged 78.4% for passenger cars, 89.6% for commercial vehicles, and 80% for all vehicles. Monthly trend data shows that E-ZPass penetration is lowest in the summer months, and peaks in the winter months of January and February. There is less variation in Commercial-vehicle E-ZPass market share by month compared to passenger cars.

Table 2-13
Annual E-ZPass Market Share: Turnpike System
Based on Toll Transactions

	Annual Percent E-ZPass Market Share By Vehicle Class		
Fiscal[1] Year	Passenger Cars	Commercial Vehicles	Total
2005-06	40.4 %	60.2 %	43.2 %
2006-07	44.3	67.9	47.6
2007-08	46.8	71.1	50.1
2008-09[2]	50.4	74.3	53.4
2009-10[2]	53.9	76.1	56.6
2010-11[2,3]	57.5	77.7	60.1
2011-12[2,3]	61.8	80.0	64.1
2012-13[2,3]	66.1	82.7	68.2
2013-14[2,3]	70.1	85.0	72.0
2014-15[2,3]	72.8	86.7	74.7
2015-16[2]	74.8	88.4	76.7
2016-17[2]	76.9	89.6	78.7

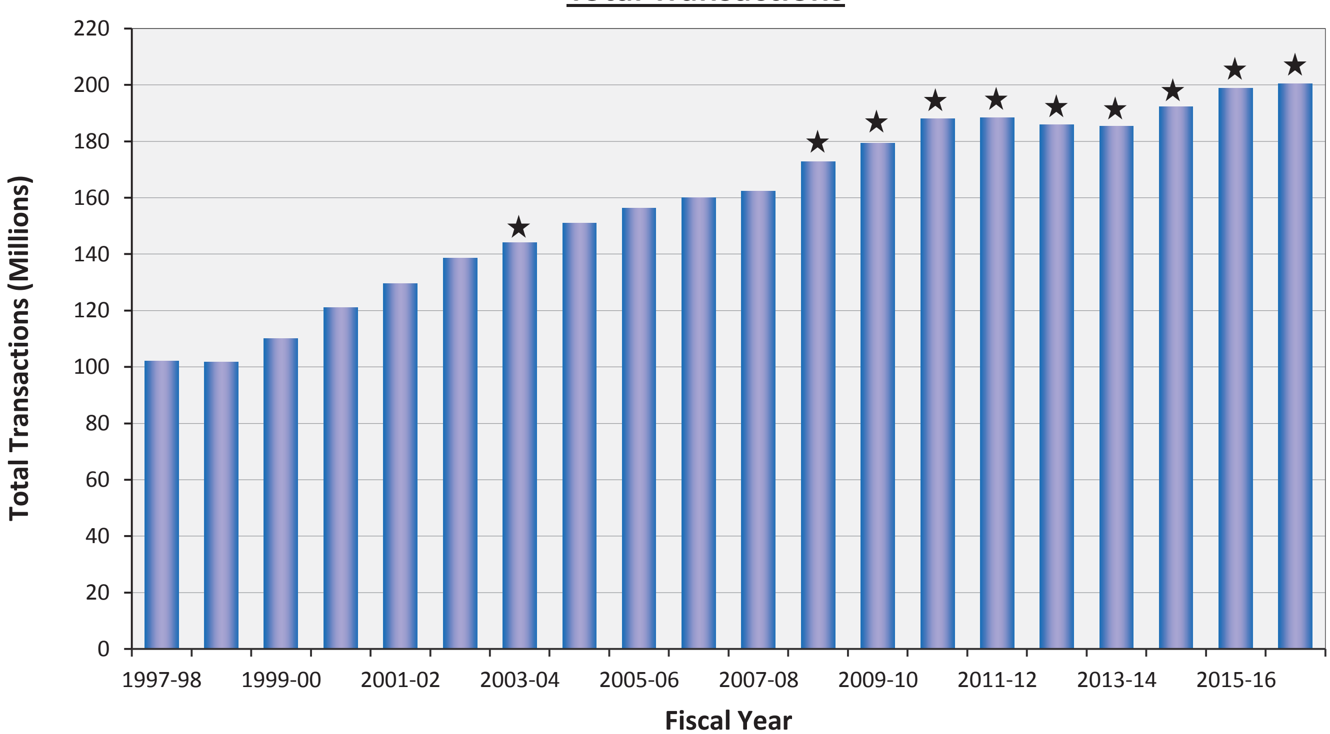
(1) PTC Fiscal Years begin June 1 and end May 31.
(2) A toll increase occurred during this year. Refer to table 2-1.
(3) The toll differential increased between E-ZPass and cash.

Gross Toll Revenue



Note: Toll revenue includes the adjustments associated with the Commercial Vehicle Volume Discount Program.

Total Transactions



PENNSYLVANIA TURNPIKE SYSTEM HISTORICAL TRANSACTIONS AND ADJUSTED GROSS TOLL REVENUE

FIGURE 2-5

Table 2-14
Monthly E-ZPass Market Share: Ticket System
Based on Toll Transactions Including Gateway Plaza

Month	FY 2016-17 (1) Percent E-ZPass Market Share By Vehicle Class Passenger Cars	Commercial Vehicles	Total Vehicles
June 2016	76.2 %	88.3 %	77.9 %
July	74.4	87.8	76.2
August	76.4	88.5	78.1
September	77.8	88.7	79.3
October	78.3	89.2	79.8
November	78.9	90.1	80.4
December	79.2	90.6	80.7
January 2017	81.0	91.1	82.4
February	80.9	90.9	82.3
March	80.5	90.6	81.9
April	79.3	90.0	80.7
May	79.4	89.7	80.9
FY Total	78.4 %	89.6 %	80.0 %

(1) PTC Fiscal Years begin June 1 and end May 31.

Chapter 3

Socioeconomic Trends and Growth Forecasts

Historical and forecast socioeconomic data was collected and evaluated to understand how the state and the major sub-regions are growing. Discussions with local Metropolitan Planning Organization (MPO) representatives was also conducted to confirm and substantiate the socioeconomic data and understand underlying trends. This information was then used in an econometric analysis to estimate long-term baseline travel demand on the Pennsylvania Turnpike.

3.1 Socioeconomic Trends and Forecasts

An evaluation of long-term socioeconomic trends and forecasts for the areas along and surrounding the Pennsylvania Turnpike provided context and inputs for the traffic growth analysis. The tables and figures that follow, summarize the socioeconomic data which were reviewed, including population, employment, unemployment rates, retail sales, gross regional product, and retail gasoline prices.

An economic growth analysis identified any potential explanatory factors that may have influenced historical growth in toll transactions. Such explanatory factors were tested and applied within a regression-based econometric analysis to derive traffic growth forecasts.

In the subsequent tables, socioeconomic trends are presented as compound average annual percent change (AAPC), mostly in decade increments from 1980 through 2050. It should be noted that year 2016 was the last year in which a full year of historical data was available at the time the analysis was performed. Geographically, the United States is presented along with the Commonwealth of Pennsylvania and the surrounding states of New Jersey, New York, Ohio, and West Virginia. Additionally, the Pennsylvania counties along the Pennsylvania Turnpike are presented in Figure 3-1, and grouped for ease of presentation into four aggregations:

- **Pittsburgh Area Counties:** Allegheny, Armstrong, Beaver, Butler, Indiana, Lawrence, Washington, and Westmoreland;
- **Interurban Area Counties:** Adams, Bedford, Blair, Cambria, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, Somerset, and York;
- **Philadelphia Area Counties:** Berks, Bucks, Chester, Delaware, Montgomery, and Philadelphia; and,
- **Northeastern Corridor Counties:** Carbon, Lackawanna, Lehigh, Luzerne, Northampton, and Wyoming.

3.1.1 Population Trends and Forecasts

Historical population growth trends and forecasts for the study area are presented in Table 3-1 and Figure 3-2. The historical trends were extracted from data available from the United States Census Bureau (census years and intercensal 2016 estimates), while forecasts of population growth rates are from the Woods & Poole, Inc. 2017 Complete Economic and Demographic Data Source (CEDDS)[1], available through year 2050.

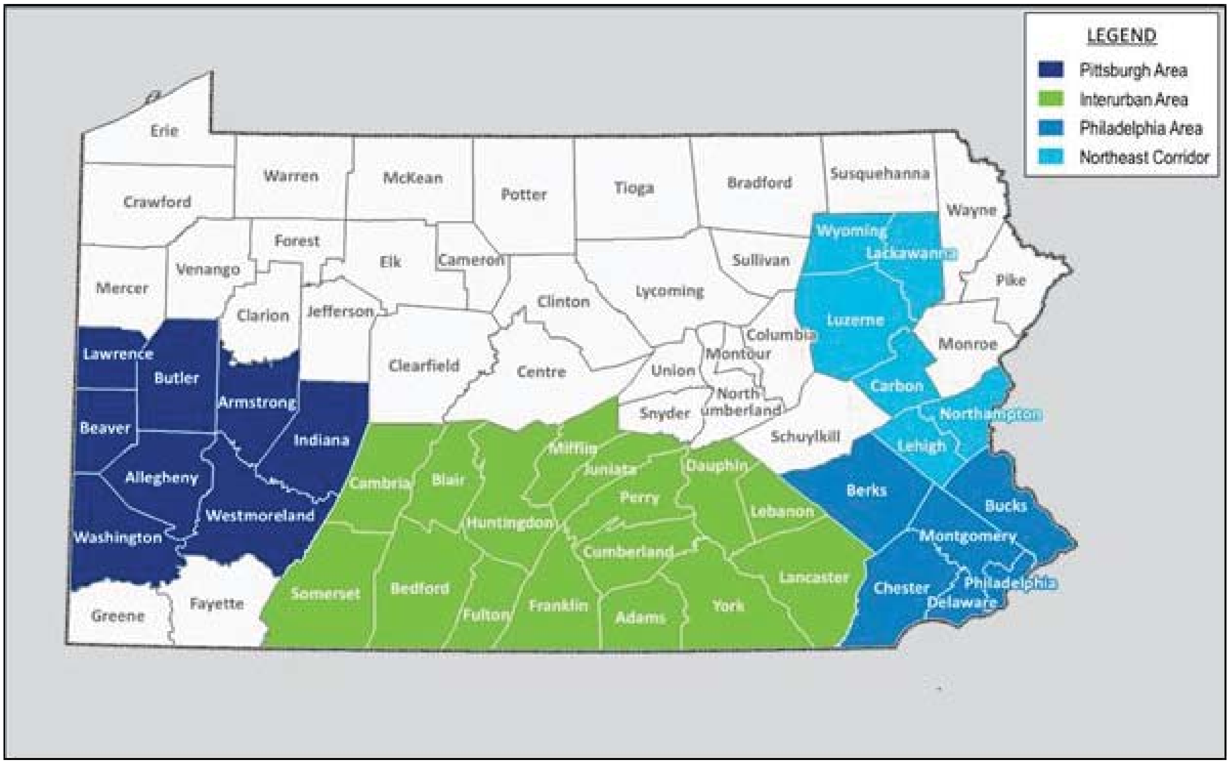


Figure 3-1
Pennsylvania County Groupings

Historic population growth along the Pennsylvania Turnpike and the surrounding states has generally been considerably lower, relative to the US. Pennsylvania's population has increased slowly since 1980, with no growth in that decade, followed by 0.3% annually from 1990 through 2010. Since 2010, the growth declined to 0.1% per year through 2016. In contrast, the U.S. growth rate has been at least three times the rate in Pennsylvania during all time periods.

Population growth along the Pennsylvania Turnpike corridor was similar to statewide growth. This is reasonable considering that the counties in the four aggregations referenced above constitute more than 80% of the statewide total. Within the Pennsylvania Turnpike corridor counties, the Pittsburgh Area has experienced a continuous population decline since the 1980s, whereas the other areas to the east of Pittsburgh experienced modest population growth.

Population is forecasted to generally continue the historical trends, with relatively modest growth rates in Pennsylvania, the surrounding states, and the counties along and surrounding the Turnpike. Pennsylvania population growth is forecasted to average 0.4% annually through 2030, and thereafter decelerate to 0.1% through 2050. Within the Commonwealth, Pittsburgh is forecast to continue contracting; the Northeast Corridor and the Philadelphia Area are forecast to exhibit population

[1] Woods & Poole Economics, Inc. Washington, D.C. Copyright 2017. Woods & Poole does not guarantee the accuracy of this data. The use of this data and the conclusion drawn from it are solely the responsibility of the consultant.

growth like Pennsylvania, and the Interurban counties between Pittsburgh and Philadelphia are forecast to grow relatively faster.

Table 3-1
Population Trends and Forecasts

Geography	History				Forecast		
	1980-'90	1990-'00	2000-'10	2010-'16	2016-'30	2030-'40	2040-'50
Pittsburgh Area	(0.7%)	(0.2%)	(0.3%)	(0.1%)	(0.1%)	(0.2%)	(0.3%)
Interurban Area	0.5%	0.7%	0.8%	0.3%	0.8%	0.6%	0.5%
Philadelphia Area	0.2%	0.4%	0.5%	0.3%	0.4%	0.2%	0.1%
Northeast Corridor	0.2%	0.2%	0.6%	0.1%	0.4%	0.3%	0.2%
Subtotal PA	0.0%	0.3%	0.4%	0.2%	0.4%	0.2%	0.1%
Maryland	1.3%	1.0%	0.9%	0.7%	0.9%	0.7%	0.6%
New Jersey	0.5%	0.8%	0.4%	0.4%	0.5%	0.4%	0.2%
New York	0.2%	0.5%	0.2%	0.4%	0.4%	0.2%	0.1%
Ohio	0.0%	0.5%	0.2%	0.1%	0.3%	0.2%	0.1%
Pennsylvania	0.0%	0.3%	0.3%	0.1%	0.4%	0.2%	0.1%
West Virginia	(0.8%)	0.1%	0.2%	(0.2%)	0.3%	0.2%	0.1%
Subtotal States	0.2%	0.5%	0.3%	0.3%	0.4%	0.3%	0.2%
United States	0.9%	1.2%	0.9%	0.8%	0.9%	0.8%	0.7%

Source: United States Census Bureau and Woods & Poole Economics, Inc. 2017

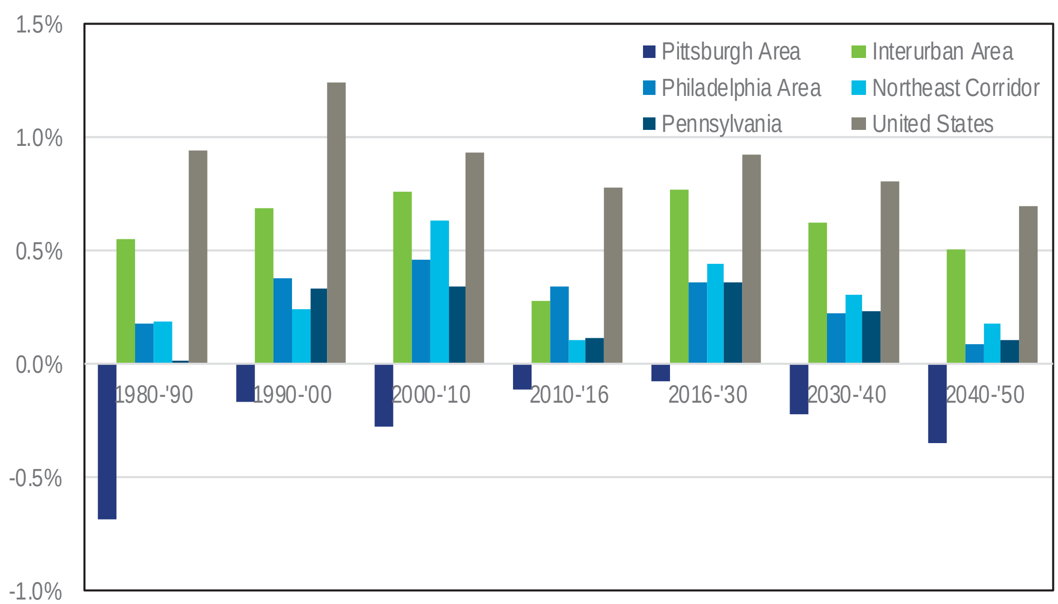


Figure 3-2
Population Trends and Forecasts

3.1.2 Employment and Unemployment Trends and Forecasts

The historical employment trends were extracted from data available from the United States Department of Commerce (Bureau of Economic Analysis from 1980 through 2016), while future growth rates are based on Woods & Poole data. Additional Bureau of Labor Statistics (BLS) unemployment data for the three major metro areas (which differs from the four Pennsylvania Turnpike socioeconomic groupings) is also compared/contrasted to state and national levels.

Employment - Historical employment growth generally decelerated from 1980 through 2010, with the pronounced reduction in average growth during the 2000-2010 decade, reflective of the recession that officially occurred from December 2007 through June 2009. Since 2010, employment growth has rebounded to longer-term historical averages, with Pennsylvania exhibiting 1.1% average growth since 2010. As with population, employment growth within Pennsylvania was historically slower than the nation (about half the rate). The Pittsburgh Area experienced the slowest relative historical employment growth, while the Interurban and Philadelphia Areas experienced the highest relative growth. Historical employment growth trends and forecasts for the study area are presented in Table 3-2 and Figure 3-3.

Although employment since 2010 (e.g., the recession) rebounded to longer-term historical growth patterns, the forecast is for decelerating growth. Average annual growth for Pennsylvania and the United States is forecast to grow at 1.0% and 1.3%, respectively, through 2030, then decelerate to 0.8% and 1.1%, respectively, between 2030 and 2040, then to 0.6% and 1.0% through 2050.

Table 3-2
Employment Trends and Forecasts

Geography	History				Forecast		
	1980-'90	1990-'00	2000-'10	2010-'16	2016-'30	2030-'40	2040-'50
Pittsburgh Area	0.4%	0.9%	0.1%	0.8%	0.7%	0.5%	0.4%
Interurban Area	1.8%	1.2%	0.4%	1.0%	1.2%	0.9%	0.7%
Philadelphia Area	1.3%	0.7%	0.4%	1.5%	1.0%	0.8%	0.7%
Northeast Corridor	1.1%	0.9%	0.5%	1.4%	1.1%	0.8%	0.7%
Subtotal PA	1.1%	0.9%	0.4%	1.2%	1.0%	0.8%	0.6%
Maryland	2.8%	1.2%	0.8%	1.5%	1.3%	1.1%	1.0%
New Jersey	1.8%	1.0%	0.4%	1.4%	1.1%	0.8%	0.7%
New York	1.2%	0.7%	0.6%	1.8%	1.0%	0.8%	0.7%
Ohio	1.2%	1.5%	(0.6%)	1.3%	0.9%	0.7%	0.6%
Pennsylvania	1.1%	0.9%	0.3%	1.1%	1.0%	0.8%	0.6%
West Virginia	(0.1%)	1.2%	0.3%	(0.1%)	0.9%	0.7%	0.6%
Subtotal States	1.4%	1.0%	0.3%	1.4%	1.0%	0.8%	0.7%
United States	2.0%	1.8%	0.5%	1.9%	1.3%	1.1%	1.0%

Source: United States Bureau of Economic Analysis and Woods & Poole Economics, Inc. 2017

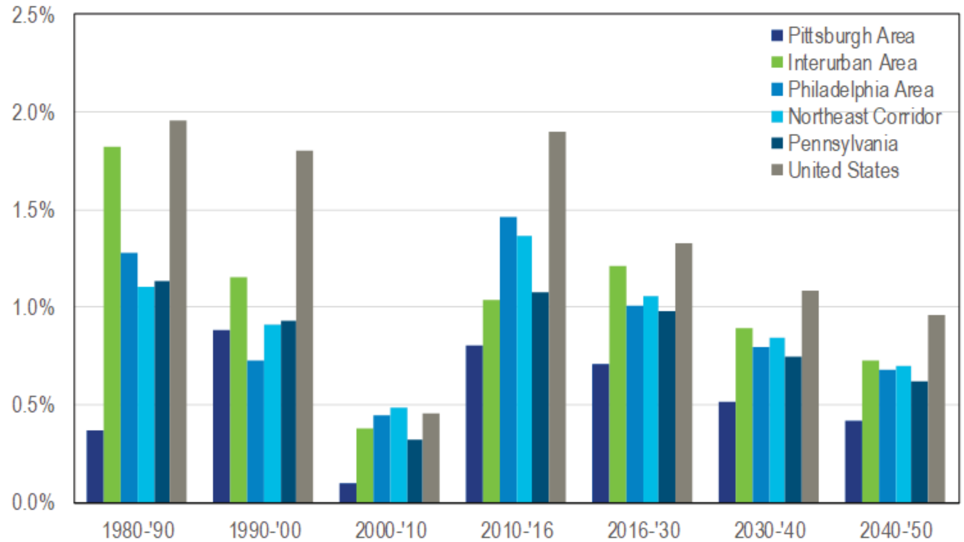


Figure 3-3
Employment Trends and Forecasts

<u>Unemployment</u> - Seasonally-unadjusted monthly unemployment rates prior to the last recession (January 2007 through November/December 2017) are presented in Figure 3-4 for the three major Metropolitan Statistical Areas (MSA) in Pennsylvania located along the Turnpike Mainline. These are the Philadelphia-Camden-Wilmington MSA, the Harrisburg-Carlisle MSA, and the Pittsburgh MSA. Additionally, unemployment data for the Commonwealth of Pennsylvania and the United States are also presented for comparison purposes. As the data are seasonally-unadjusted, the graph depicts both the seasonal cyclicality, and the longer-term trends.

Unemployment rates for the Commonwealth and MSAs generally parallel the nation, with a steep increase in 2008 and 2009, followed by a decade of steady decline to around 4.0%. Although the trends parallel, the Pennsylvania rates for most of the recent decade were below the United States. Harrisburg-Carlisle generally exhibited the lowest relative unemployment rates, reflective of the more stable government employment in the State Capitol (compared to more volatile private-sector employment). Philadelphia-Camden-Wilmington exhibited slightly higher unemployment rates than either Pittsburgh or Pennsylvania for most of the last decade. However, since the end of 2015, the unemployment rate in the Philadelphia MMSA has generally been slightly lower than Pennsylvania, whereas the unemployment rate in the Pittsburgh MSA has tracked slightly higher than the Commonwealth.

3.1.3 Real Retail Sales

Retail sales (in real, or constant dollar terms) trends and forecasts for the study area are presented in Table 3-3 and Figure 3-5. These data were extracted from data available from Woods & Poole. Nationally, growth in real retail sales grew 2.0% in the 1980s, accelerated to 3.4% in the 1990s, and was a tepid 0.6% in the decade from 2000 to 2010 (due to recession in 2008/09). Since the recession, annual growth nationally has rebounded to 2.8%. Pennsylvania trends in real retail sales paralleled the national historical trend, albeit at a relatively slower pace, with recent, post-recession annual growth of 2.3%. Within the Commonwealth, the Pittsburgh Area experienced the lowest post-recession relative growth (2.0%), while the Northeast Corridor experienced the highest (2.8%).

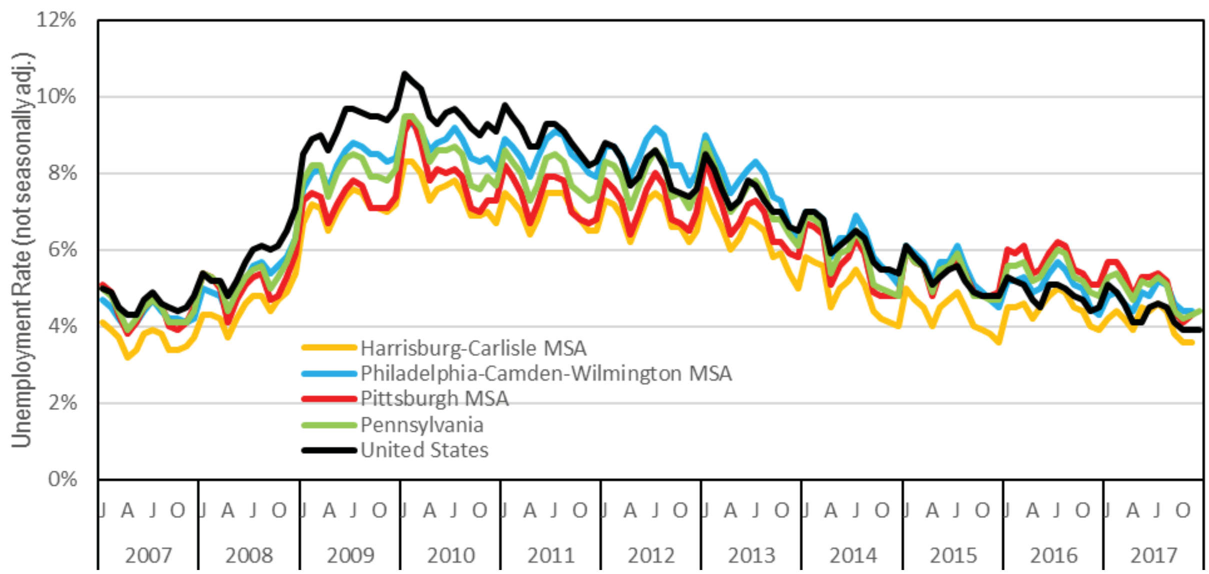


Figure 4-4
Trends in Unemployment Rates

Growth in real retail sales is forecast to decelerate from the recent rebounded growth since the recession. Nationally, Woods & Poole forecasts an average annual growth of about 1.5% through the end of the forecast period. Pennsylvania is forecast to grow at a slower relative pace, at 1.0% or lower. Within the Commonwealth, growth in retail sales within the Interurban Area are forecasted to be slightly higher than those of the other three clustered areas surrounding the Turnpike; and of these three, the Pittsburgh Area is forecast to grow at the slowest relative average rate.

Table 3-3
Real Retail Sales Trends and Forecasts

Geography	History				Forecast		
	1980-'90	1990-'00	2000-'10	2010-'16	2016-'30	2030-'40	2040-'50
Pittsburgh Area	0.3%	2.4%	0.1%	2.0%	0.5%	0.3%	0.4%
Interurban Area	2.2%	2.7%	(0.0%)	2.4%	1.3%	1.2%	1.3%
Philadelphia Area	2.1%	2.6%	0.3%	2.1%	1.1%	0.9%	1.0%
Northeast Corridor	1.6%	2.5%	1.7%	2.8%	0.9%	0.8%	0.9%
Subtotal PA	1.6%	2.5%	0.4%	2.2%	1.0%	0.8%	0.9%
Maryland	2.5%	2.7%	0.2%	2.4%	1.5%	1.3%	1.4%
New Jersey	2.2%	2.7%	0.2%	2.4%	1.1%	0.9%	1.0%
New York	1.5%	2.4%	0.9%	2.6%	1.0%	0.8%	0.9%
Ohio	1.2%	3.0%	(0.6%)	2.5%	0.9%	0.8%	0.9%
Pennsylvania	1.6%	2.5%	0.3%	2.3%	1.0%	0.8%	0.9%
West Virginia	(0.2%)	2.9%	0.2%	2.2%	0.9%	0.8%	0.9%
Subtotal States	1.6%	2.6%	0.3%	2.4%	1.0%	0.9%	1.0%
United States	2.0%	3.4%	0.6%	2.8%	1.5%	1.4%	1.5%

Source: Woods & Poole Economics, Inc. 2017

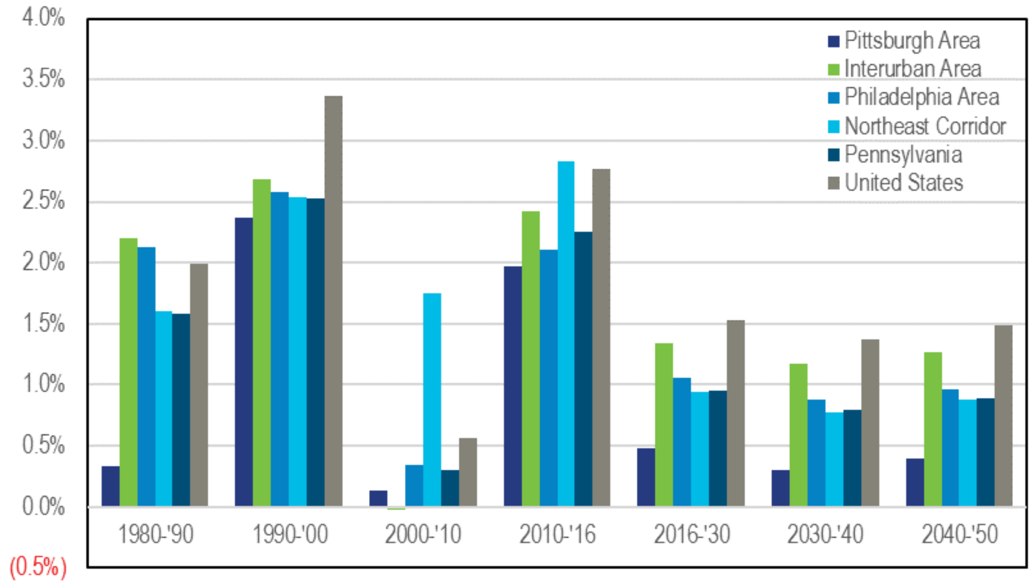


Figure 5-5
Real Retail Sales Trends and Forecasts

3.1.4 Real Gross Regional Product (GRP)

Real gross regional product (or gross state product/gross domestic product, depending on the geographic focus) is the inflation-adjusted standard metric for total economic activity in an area. Real GRP trends and forecasts for the study area are presented in Table 3-4 and Figure 3-6 and are sourced to Woods & Poole, based on data from the Bureau of Economic Analysis.

National real gross domestic product (GDP) decelerated from an annual average of 3.6% in the 1990s to less than half that (1.7%) in the decade from 2000 to 2010 (reflective of the recession). Since the recession, national real GDP increased 2.5% annually. Pennsylvania's real gross state product (GSP) growth pattern was similar, with 2.7% in the 1990's, decelerating to 1.8% from 2000 to 2010 and increasing slightly to 2.0% per annum from 2010 to 2016. Within the Commonwealth, the two major MSAs (Pittsburgh and Philadelphia) historically exhibited the highest relative growth rates in real GRP.

Real GRP growth forecasts are for 2.1% per annum for the United States through 2030 and 1.8% for Pennsylvania. As with the growth forecasts for other socioeconomic variables, a general deceleration in growth is forecast for GRP. In the corridor counties, like the entire Commonwealth, real GRP growth is projected to average 1.8% through 2030, with a general deceleration thereafter. And, within the Pennsylvania Turnpike corridor, the Pittsburgh and Philadelphia Areas are forecast to have the slowest relative growth.

Table 3-4
Real Gross Regional Product Trends and Forecasts

Geography	History				Forecast		
	1980-'90	1990-'00	2000-'10	2010-'16	2016-'30	2030-'40	2040-'50
Pittsburgh Area	0.9%	2.8%	1.7%	2.4%	1.5%	1.4%	1.3%
Interurban Area	2.8%	2.6%	1.5%	1.8%	2.0%	1.7%	1.5%
Philadelphia Area	3.2%	2.8%	2.0%	1.9%	1.8%	1.7%	1.7%
Northeast Corridor	2.1%	2.7%	1.6%	1.5%	1.7%	1.5%	1.3%
Subtotal PA	2.4%	2.7%	1.8%	2.0%	1.8%	1.6%	1.5%
Maryland	4.5%	2.9%	2.9%	1.6%	2.0%	1.8%	1.7%
New Jersey	4.7%	2.7%	1.0%	1.4%	1.7%	1.5%	1.4%
New York	3.2%	2.5%	1.7%	1.8%	1.9%	1.7%	1.6%
Ohio	2.0%	3.2%	0.3%	2.8%	1.8%	1.6%	1.4%
Pennsylvania	2.3%	2.7%	1.8%	2.0%	1.8%	1.6%	1.5%
West Virginia	(0.2%)	2.2%	2.6%	0.8%	1.1%	1.0%	0.8%
Subtotal States	3.0%	2.7%	1.5%	1.9%	1.8%	1.6%	1.5%
United States	3.1%	3.6%	1.7%	2.5%	2.1%	1.8%	1.7%

Source: Woods & Poole Economics, Inc. 2017

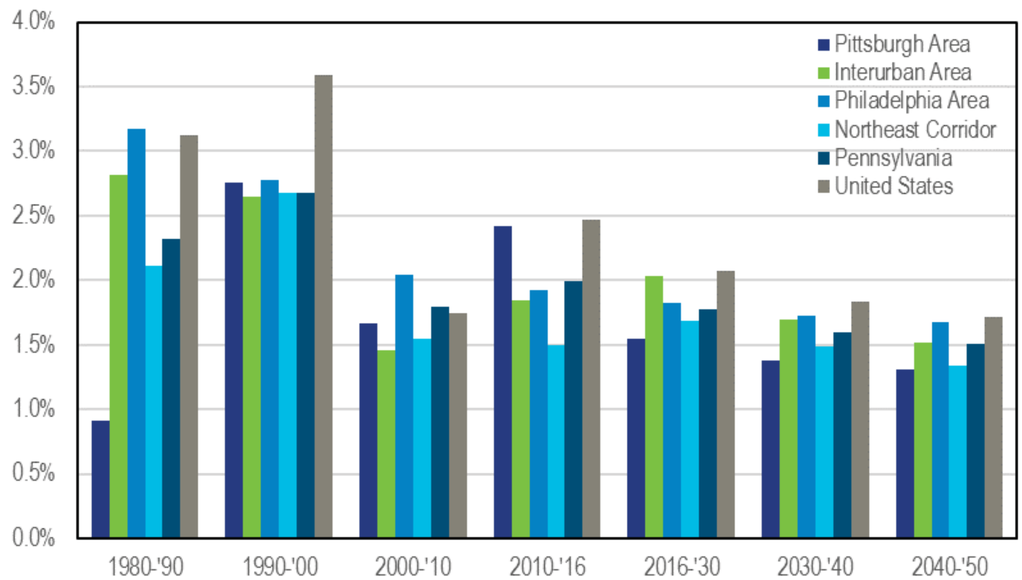
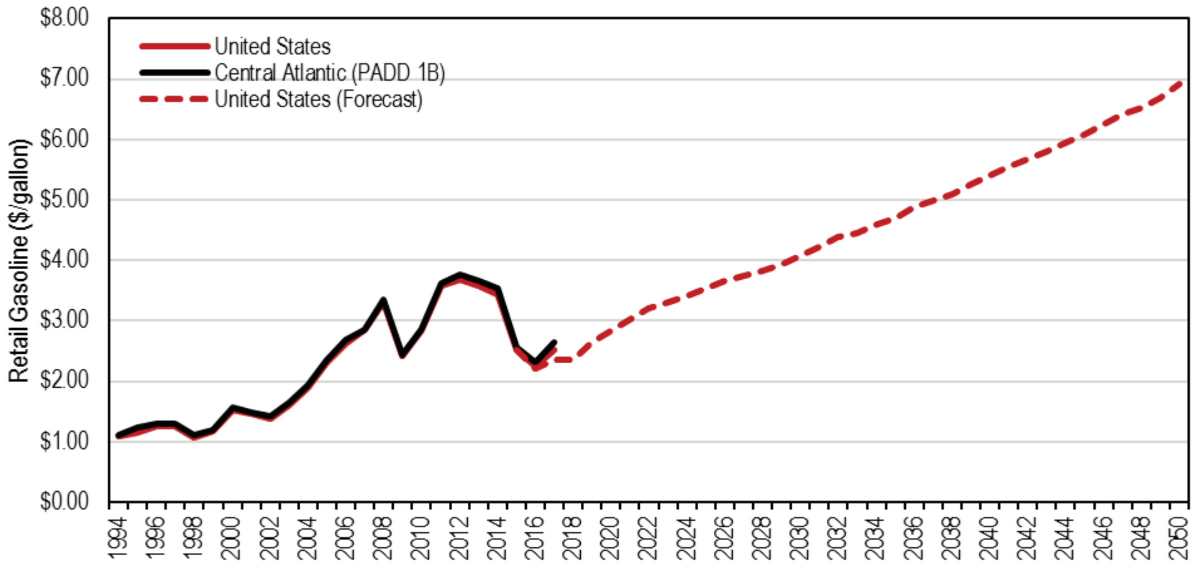


Figure 6-6
Real Gross Regional Product Trends and Forecasts

3.1.5 Motor Fuel Prices

Historical gasoline prices (in current dollars/gallon for all grades, all formulations) for the Central-Atlantic region (NY, NJ, PA, DE, and D.C.) and the United States are presented in Figure 3-7. The data was obtained from the U.S. Energy Information Administration (EIA). Average annual gasoline prices for the United States and the Central-Atlantic region were nearly identical historically, with the Central Atlantic region between $0.01 and $0.11 per gallon above the national price. Prices peaked at close to $3.70 per gallon in 2012[2], and declined through 2016. Prices in 2017 increased by more than $.025/gallon over 2016, and that upward trend is forecast to continue through 2050. According to the EIA Annual Energy Outlook 2017, future average national gasoline prices are forecasted to steadily increase to $7.00/gallon by 2050 in current dollars.



Source: Energy Information Administration

Figure 7-7
Gasoline Prices

3.2 MPO Outreach and Regional Economic Conditions

To supplement the socioeconomic data analysis, additional qualitative inputs were collected for the geographic areas represented by four of the five major metropolitan planning organizations (MPO) within, or near, the Pennsylvania Turnpike corridors. The inputs were collected via discussions with representatives from the MPOs. As shown in Figure 3-8, the geographic areas covered by these five MPOs partially overlap with the four Pennsylvania Turnpike areas analyzed in the previous subsection. While characteristics reviewed and discussed varied by MPO, they generally include: housing and residential, employment and industry, and freight and shipping. The five MPOs include:

- Southwestern Pennsylvania Commission (SPC)
- Delaware Valley Regional Planning Commission (DVRPC)
- Tri-County Regional Planning Commission (TCRPC)
- Lackawanna-Luzerne Metropolitan Planning Organization (LLMPO)
- Lehigh Valley Planning Commission (LVPC)

[2] Please note that in sub-annual terms, gas prices reached their high for the last two decades of around $4.15 per gallon in July of 2008 (not shown in the Figure).

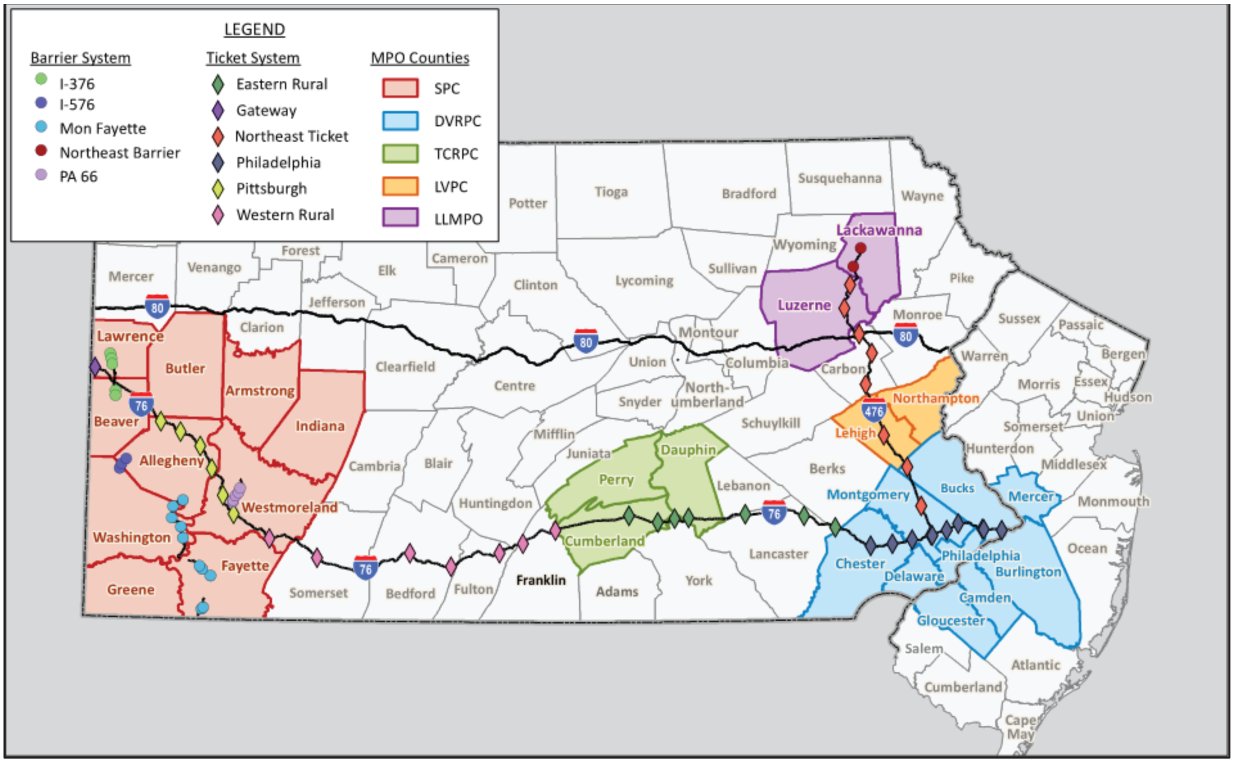


Figure 8-8
Pennsylvania MPOs

3.2.1 Southwestern Pennsylvania Commission

The Southwestern Pennsylvania Commission includes the eight Pittsburgh area counties as well as the two counties bordering West Virginia (Fayette and Greene).

Housing and Residential – Residential development continues to be led by Cranberry Township in Butler County, north of downtown Pittsburg. West of Pittsburg, residential (and commercial) development continues in Westmorland County (east of Monroeville) as the Southern Beltway (Route 576) nears completion. Southwest of Pittsburg, the residential development is growing to support the Southpoint commercial development (Washington County). Downtown Pittsburg also continues to develop as several properties shift from commercial to residential use. Such downtown residential properties accommodate smaller household size than the suburbs.

Employment and Industry – The Southpoint suburban business park in in Cecil Township, 17 miles south of Pittsburg, accommodates over 300 businesses. Marcellus Shale oriented energy firms include and Noble Energy, Rice Energy, Range Resources, CONSOL Energy, DPS Property, Chesapeake Energy, Columbia Gas. Other high technology (telecom/engineering specialty service) firms include: Southpointe Telecom, Ansys, Crown Castle, Mylan Labs, etc. While coal output and employment continue to decline, gas related activity associated with fracking continues to produce high volumes despite area wells being generally built-out.

Freight and Shipping – Local distribution facilities, including Amazon, continue to expand throughout the area. In fact, the Pittsburg area made the narrowed list of 20-cities seeking to attract the new Amazon headquarters, which would significantly affect growth trends.

3.2.2 Delaware Valley Regional Planning Commission

The Delaware Valley Regional Planning Commission includes five of the six Philadelphia area Pennsylvania Turnpike counties (excludes Berks), and four neighboring New Jersey counties (Burlington, Camden, Gloucester, and Mercer).

Housing and Residential – Both the urban core (Philadelphia) and the suburbs are growing. Recent residential increase in central Philadelphia and adjacent zip codes reflect millennials demand for urban rental and multi-family housing. Similarly, suburban counties, townships and boroughs are also booming. These especially include: Conshohocken Borough (*Montgomery County*), Upper Makefield Township (*Bucks County*), Spring City (*Chester County*), and *Washington Township* (Mercer County) NJ. While housing prices are increasing, potential solutions include regional transit improvements and inclusionary zoning policies. Further, private developers are increasingly pressured to provide more incentives beyond low-income housing tax credits[i].

Employment and Industry – Regionally, the largest industry sectors include services, retail, manufacturing, FIRE[3], and freight transport. Growth continues in both the Philadelphia core and the suburban area. In Philadelphia, employment is led by education, healthcare, and technology – with Comcast operations growing the fastest. Additionally, the Philadelphia International Airport (PHL) and the American Airlines hub-operations are major employers. Downtown, University of Pennsylvania (UPENN) and Drexel University enroll over 50,000 students and employ thousands of staff.

Amtrak and SEPTA rail lines converge at the 30th street station, close to UPENN, where development continues, including possibly an Amazon facility. However, many physical constraints, (e.g., many at-grade rail lines) require large-scale development/planning. Such development would significantly affect the City and region. Also, Naval Yard redevelopment (South Philly) of 1,200 acres is expected to average about 1,000 new jobs per year for the next 15-20 years, which will affect the I-95 corridor but is not close to the Pennsylvania Turnpike.

While downtown office development is static, the market is growing in the suburbs, such as a new office park in Blue Bell. An old golf course in the King of Prussia Mall area is also being redeveloped as a casino with mixed-use conversion (housing/commercial). And, an 800-acre redevelopment in Willow Grove (Montgomery County) is anticipated to attract 30,000 jobs and several thousand residents, depending on proposal adopted.

Freight and Shipping – With a major international port and commercial service airport along the eastern seaboard, the region accommodates a large volume of directional freight (inbound, outbound, internal, and through) by all four modes (truck, rail, port, and air). At the Port of Philadelphia, larger cranes and harbor deepening (45’) facilitate larger Panamax vessels, increased containerization, and recent automobile imports (Hyundai/Kia). At PHL, air cargo operations continue to expand (Cargo City and UPS), despite new runway expansion delays (10+ years). In neighboring New Jersey, freight center growth continues along the New Jersey Turnpike (NJTP) interchange 8A. Similarly, freight center growth in Leigh Valley also affects traffic volumes in the northern DVRPC.

Growth Summary – City-Center redevelopment will generate minor effects on future traffic due to mixed city-center trends and transport improvements. Current employment levels of around 300,000

[3] Financial, insurance, and real estate services

continues to fall, as the 60,000-population level continues to rise as offices and big-box stores convert to housing. Envisioned urban-core transport improvements (both Turnpike and transit) will help accommodate Philadelphia population growth and employment trends.

Suburban growth appears stronger as employment continues to branch-out from the core. Specific development is anticipated along the Turnpike's I-76 corridor. Suburban growth will also increase suburb-to-suburb commuting with heavy reliance on limited access roadway facilities such as I-76 and the Northeast Extension. High growth suburban counties include Bucks (north of core) and Chester (west). Montgomery (northwest), which grew rapidly over the past twenty years, has little vacant land available, and is turning to mixed-use and redevelopment.

3.2.3 Tri-County Regional Planning Commission

Within the sixteen-county Interurban Turnpike area, the Tri-County Regional Planning Commission comprises the three central counties of Cumberland, Dauphin, and Perry. While each reflects distinct socioeconomic conditions, the region continues transitioning to a post-manufacturing economy.

Housing and Residential – Anchored by Harrisburg, the state capitol, is the densest and most populous of the three counties. However, its population decline between 1970 and 2000 reflected a relocation to the suburbs of Cumberland County. Comparatively, Perry County remains very rural with low population levels and growth rates.

Employment and Industry – Regional iron and steel manufacturing centered in Harrisburg (Dauphin County) has been replaced by the Penn State Hershey Medical Center, the Giant Food Stores corporate headquarters, and the Hershey Company Resort and Factory. Recent Harrisburg development has been constrained by fiscal financial issues and the reality that half of assessed city property is exempt from current taxes (capitol and other state-owned facilities). Such development constraints spurred a 10-year tax abatement redevelopment incentive package, an updated future land use plan, zoning code changes, and other measures. Resultant development prospects include talk of new large-scale office and residential projects.

In Cumberland County, the Department of Defense is the major employer, which supports the New Cumberland Army Depot and the Naval Support Activity in Mechanicsburg – largest inland supply depot in the U.S. Comparatively, Perry County has an agriculture-based economy, which exhibits slow to moderate growth as the retail/commercial sector expands slowly.

Freight and Shipping – A UPS regional hub in suburban Harrisburg lies just north of the Harrisburg International Airport (MDT), which is undergoing an air cargo apron expansion. A FedEx shipment center is also located in Middletown (north of I-76). Also, a major rail intermodal facility (3rd largest east of Mississippi River) located in Dauphin County accommodates a diverse commodity mix and has major roadway connections.

Other – Local toll rates are considered very high by local commuters, which has led to toll road avoidance commute patterns. I-83 reconstruction over the next decade will stress such commutes and the overall Harrisburg highway system. This illustrates potential externality effects in historical toll transactions, as well as in future transaction growth.

3.2.4 Lackawanna-Luzerne Metropolitan Planning Organization

The MPO lies within the Northeast Pennsylvania Turnpike analysis area and comprises the two northern counties of Lackawanna and Luzerne.

Housing and Residential – With the oldest housing stock in the nation, reuse has been limited to the urban cores of Scranton and Wilkes-Barre (W/B). Urban land redevelopment initiatives (Keystone Opportunity Zone, State Land Bank), continue to help remove troubled properties and stem the cycle of vacancy/abandonment/foreclosure. However, such initiatives struggle to successfully stimulate property demand. Nonetheless, population remains stable with residential in-migration into downtown Scranton induced by the Medical College enrollment and reverse suburbanization trends of older residents seeking more-urbanized access to retail, entertainment, medical, etc.

Suburban population is also increasing slightly, although undercounted due to the Latino immigrants and a significant Bhutanese community. Anecdotal observations by local community leaders of suburban housing, retail, school enrolment, etc. suggest that the immigrant enclaves are expected to continue expanding.

Employment and Industry – Both counties continue to transition to a post-manufacturing, post-coal economy. Additionally, Scranton financial issues constraining development include pension payments, struggling school district budgets, and disproportionate local service taxes on low-income workers. Nonetheless, freight distribution and shipping (see below), the Casino, and other development facilitate modest economic growth in the region.

Located between Scranton and W/B, the Mohegan Sun Pocono Casino continues to expand (new 8-story hotel) with much land held for future development (e.g., golf course, water park, etc.). With continued traffic volume increases, the Casino seeks a new I-81 interchange. Noteworthy, concerns about a negative Casino impact downtown business has not arisen.

The Humboldt Industrial Park, south of W/B in Hazel Township along I-81, continues to develop, and currently employees around 10,000. North of the I-476 Turnpike terminus, Clark Summit continues to evolve as parcel land use turns commercial (banks, restaurants, pharmacies, etc.), which addresses previously underserved local service needs.

Freight and Shipping – A very strong and growing sector of the regional economy. Several regional distribution-centers and box-warehouses lie in the valley between Scranton and W/B along the Turnpike (I-476) and I-81. These centers/warehouses serve the whole northeast U.S. Over two dozen facilities range in size from 0.3 million to over 1.2 million sq. ft. Major distributors include Chewy, Adidas, Patagonia, Lowes, etc. Continued successful growth of the facilities have also led to expanded back-office support operations. Such growth led to planned expansion of Highway 6, north of the I-81/I-84 interchange. Further, the Wilkes-Barre/Scranton Int'l Airport (AVP) continues to support the regional freight and shipping sector. The recent airport master plan focuses on developing vacant parcels for air-based warehousing/manufacturing (0.5 million sq. ft. mixed-use) and distribution.

3.2.5 Lehigh Valley Planning Commission

The Lehigh Valley Planning Commission lies within the Northeast Turnpike analysis area and comprises the two southern counties of Lehigh and Northampton. We reached out to the MPO several times but were unable to engage. Located between the DVRPC and LLMPO, regional characteristics reflect a cross between the small urban LLMPO and the suburban fringe of the DVRPC, which confirms the historical socioeconomic trends and growth forecast findings.

3.2.6 Conclusion

The qualitative MPO outreach discussions of local economic conditions confirmed the quantitative analysis of socioeconomic trends that went into the subsequent econometric growth analysis. The due-diligence outreach found nothing that would alter the quantitative forecasting process. Rather, the outreach corroborated and substantiated the socioeconomic trends with local depictions of where residential and/or business growth was (or was not) occurring and why.

3.3 Economic Growth Analysis

An econometric analysis was conducted to estimate long-term baseline travel demand on the Pennsylvania Turnpike. Historical travel demand was econometrically estimated via regression equations for groups of toll plazas, the rationale for which will be explained in Section 3.3.1.2. Regional socioeconomics and other variables were tested as explanatory factors. With statistically-significant historical equations, independent variable forecasts were applied to the equation coefficients to estimate future travel demand. Twenty demand equations were tested for either individual plazas or groups of proximate plazas, for both passenger cars (PC) and commercial vehicles (CV). A majority of the twenty plaza-vehicle grouping equations yielded statistically-significant, defensibly-logical results. Forecasts were conducted through 2050.

Subsequent toll modeling analyses conditionally incorporates these econometrically-derived baseline travel demand forecasts, which consider a range of future toll policies and rate structures in estimating future revenue potential.

3.3.1 Econometric Modeling

CDM Smith developed an econometric model for the PA Turnpike System, using multivariate regression analysis to develop long-term toll-transaction growth forecasts. In the econometric modeling, the objective is to identify an independent variable (or variables) with historical trends that can explain, by way of statistical significance, corresponding traffic trends on the Turnpike. A resulting correlative relationship between historical trends in corridor traffic and one or more independent variables is, in turn, applied in forecasting future Turnpike transaction growth, given available and credible forecasts for the independent variable(s). CDM Smith regression-tested annual transaction data for 10 plaza groupings, described in Section 3.3.1.2, against geographically-weighted independent socioeconomic data, (for passenger cars and commercial vehicles) to derive long-term transaction forecasts.

3.3.1.1 Regression Testing

Highway travel occurs for myriad reasons, such as recreation, commuting, trade, etc., and is influenced by factors such as fuel prices, other travel costs, weather, trip urgency, and economics. Aggregate highway travel, however, typically trends closely with regional socioeconomic variables. As such, conceptually-relevant socioeconomic data were hypothesized, compiled, and regression-tested for explaining annual travel demand. These data include population, employment, real gross regional product, and real retail sales, compiled at various geographic levels. In addition to regional socioeconomic variables, average fuel prices and an indexed toll variable were tested as explanatory factors for historical travel.

Multiple regression equations were tested and evaluated for each toll plaza-vehicle grouping to account for the numerous possible combinations of relevant geographies (county clusters) for each possible socioeconomic variable, and combinations with either/both fuel and toll index factors. A single "best fit" equation was identified for each toll-plaza grouping and used in the developing transactions forecasts.

3.3.1.2 Toll Plaza Groupings (Dependent Variables)

Toll plazas were clustered into the ten groupings (from 69 individual plazas) to reduce regression testing to a reasonably manageable data universe, based-on geographic proximity, similarities in historical travel demand patterns, data availability, and other characteristics such as operating history. These toll plaza groupings are identified in Table 3-5 and shown graphically in Figure 3-9. Some individual toll plazas were excluded from the groupings due to data gaps (e.g., I-376 and PA 66), staggered plaza openings/closings (e.g., Mon Fayette), or too short annual data (e.g., I-576), as inclusion would artificially distort the historical demand trends. Of the 69 individual toll plazas, 39 were included in the groupings. The 30 toll plazas excluded from the ten groups mostly pertain to the barrier-system facilities.

Note that the Delaware River Bridge (DRB) and the Southern Beltway (I-576) were not econometrically tested similarly to other groupings. The DRB changed operations recently, therefore, the historical trend may not appropriately correspond with current and future conditions. The I-576 opened in 2006, and the relatively short historical data includes a ramp-up trend that does not statistically correspond to any regional socioeconomic characteristics.

Where available, historical traffic data were used as continuous annual time series from 1987 through 2016. Annualized data were available for most of the ticket-system facilities, exempting a few toll plazas that opened after 1987 (and thus excluded). However, the barrier-system data were more limited; available only since 1994 with data gaps, or toll plazas that were opened too recently to provide a statistically defensible trend (insufficient number of data points). Many of the 30 excluded toll plazas from the groupings are barrier toll plazas with shorter historical operating timeframes than 1994 to 2016.

Table 3-5
Toll Plaza Groupings

	Plaza Grouping	Type	Included	Excluded
1	Gateway	Ticket	1	0
2	Pittsburgh	Ticket	5	1
3	Western Rural	Ticket	7	0
4	Eastern Rural	Ticket	7	0
5	Philadelphia	Ticket	6	5
6	Northeast Ticket	Ticket	7	2
7	Northeast Barrier	Barrier	2	0
8	I-376	Barrier	2	3
9	PA 66	Barrier	1	4
10	Mon Fayette	Barrier	1	11

Source: CDM Smith

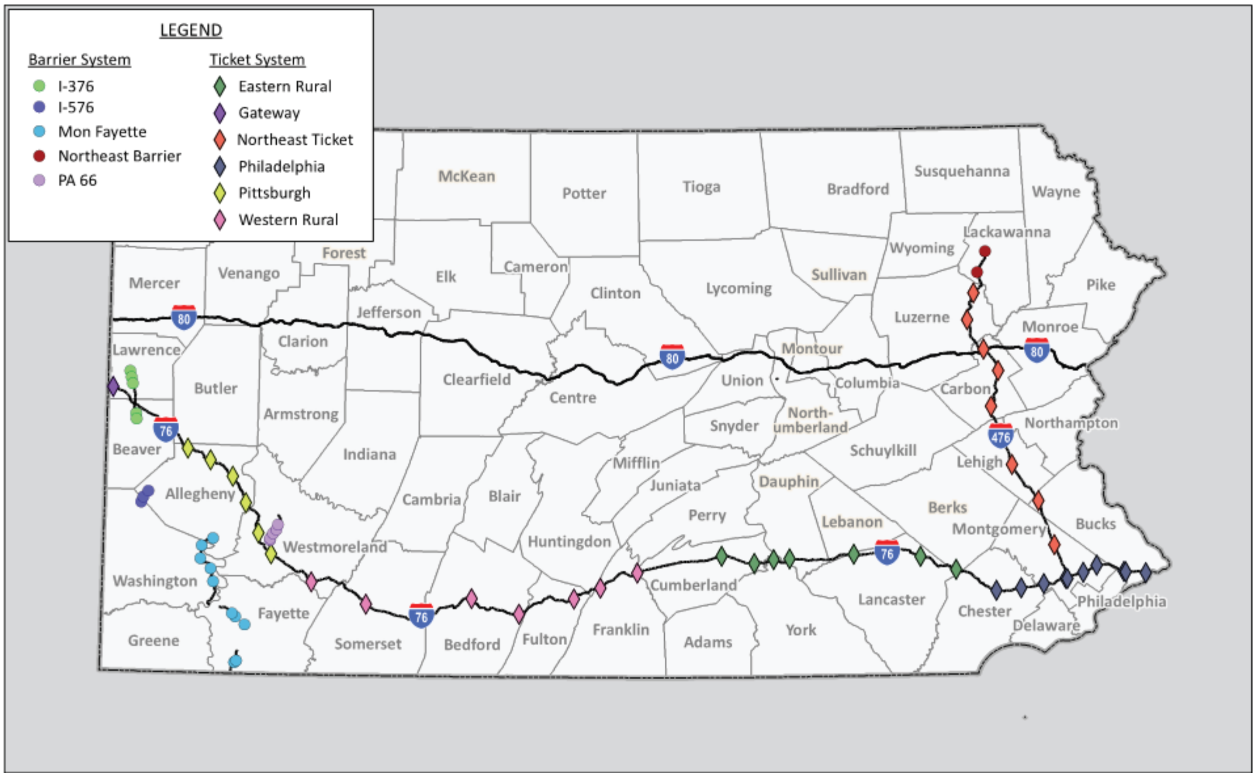


Figure 9-9
Toll Plaza Groupings

3.3.1.3 Socioeconomic Data (Independent Variables)

Data inputs include historical and forecasts data for the possible explanatory independent variables, which include socioeconomics for geographies surrounding the Turnpike (i.e., Pennsylvania and surrounding states' counties). Data compiled for regression testing included:

- Pennsylvania Turnpike Commission – historical transactions and toll rate schedule
- United States Census Bureau – historical population
- United States Bureau of Economic Analysis (BEA) – historical employment
- United States Energy Information Administration (EIA) – historical and forecast fuel prices
- Woods & Poole Economics, Inc. – historical and forecast population, employment, real gross regional product (GRP), and real retail sales
- Moody's Analytics – historical and forecast real gross regional product (GRP)

Socioeconomic data was tested as an explanatory variable at various combinations of counties surrounding the toll plazas groupings. Data was compiled for all counties in Pennsylvania, New York, New Jersey, Delaware, Maryland, Virginia, West Virginia, and Ohio.

3.3.1.4 Regression Caveats

Econometrically-derived long-term demand forecasts served as basis for further transaction and toll revenues estimates. Growth forecasts from the regressions do not explicitly consider route choice assumptions, the existing roadway network and planned improvements, existing and anticipated roadway capacities, origin-destination pairing, peak and directional factors, or traffic diversions. As such, the regression-based forecast growth rates are conditionally incorporated into further traffic and revenue modeling.

As this regression analysis attempted to estimate aggregate travel demand, the equations cannot account for all potentially influencing factors, especially any small-scale, qualitative/difficult-to-quantify, and/or irregularly occurring factors. Also, a regression analysis is incapable of forecasting unprecedented factors (positive or negative influence) such as catastrophic climate change, health epidemics, terrorism, natural disasters, or any other significantly destabilizing factors.

Forecasts are estimates, limited by the availability and robustness of input data, both historical and projected. Data unavailability, discrepancies, aberrations, and inaccuracies can hinder the robustness and results of econometric forecasting.

3.3.1.5 Regression Equations and Forecasting

A final regression equation was estimated for each toll plaza/vehicle grouping, relating historical annual travel demand with a regional socioeconomic variable, and sometimes with a toll index and/or fuel prices as additional explanatory factors. A regression summary for the ten-toll plaza/vehicle groupings is provided in Table 3-6. After testing the compiled socioeconomics at various regional county clusters, it was determined that real GRP was the best-suited explanatory variable for most equations, and population for a couple of equations.

Geographically, regional combinations of contiguous counties in Pennsylvania, New Jersey, Delaware, Maryland, West Virginia, and Ohio served as logical and statistically-acceptable catchment areas. Although each equation has a unique county combination, anchored around the respective plaza groupings, the counties included in each equation are along and adjacent to the Pennsylvania Turnpike system. Catchment areas regionalize socioeconomic variables as related to travel demand; however, the catchment areas should not imply that travel demand is only from those geographies, but rather that the catchment is a logical, statistically-valid representation for the aggregate demand.

Most of the twenty equations exhibited sensible relationships with acceptable statistics; however, despite concerted due-diligence, a few equations could not be improved upon while yielding poor statistics or questionable relationships. In such instances, the historical travel demand patterns did not trend well with any regional socioeconomics and/or the toll rate factors, and are instead probably more influenced by localized, sub-county factors such as toll plaza operating characteristics, diversion potentials, construction closures, etc. Such historical transaction volatility disjointed from regional socioeconomic trends was encountered for single toll plaza equations (i.e., Gateway CV) and the smaller barrier-system facilities (i.e., Northeast Barrier PC and CV, and I-376 PC). Contrastingly, the ticket-system groupings with multiple major toll plazas that contribute to a significant majority of the total Pennsylvania Turnpike transactions and revenues (I-76 and the Northeast Extension/I-476) exhibited statistically-significant equations and coefficients, with consistent relationships across adjacent groupings and logical results.

Table 3-6
Regression Summary

Grouping/Vehicles	Start Yr.	Adj. R2	Independent Variables			PA	Non-PA	Counties
Gateway PV	1987	91.90%	GDP			4	4	8
Pittsburgh PV	1987	95.10%	GDP	Toll Index		13	10	23
Western Rural PV	1987	92.10%	GDP	Toll Index		12	7	19
Eastern Rural PV	1987	97.80%	GDP	Toll Index		12	9	21
Philadelphia PV	1987	93.10%	GDP	Toll Index		13	12	25
Northeast Ticket PV	1987	99.10%	Population	Toll Index	Fuel Price	10	5	15
Northeast Barrier PV	1994	44.70%	Population			7	0	7
I-376 PV	1994	85.40%	GDP	Toll Index		2	0	2
PA 66 PV	1994	92.10%	GDP	Toll Index		2	0	2
Mon Fayette PV	1994	95.40%	GDP	Toll Index		2	3	5
Gateway CV	1987	68.40%	GDP	Toll Index		1	4	5
Pittsburgh CV	1987	95.20%	GDP	Toll Index		18	15	33
Western Rural CV	1987	94.70%	GDP	Toll Index		15	12	27
Eastern Rural CV	1987	97.80%	GDP	Toll Index		14	13	27
Philadelphia CV	1987	91.70%	GDP	Toll Index		5	7	12
Northeast Ticket CV	1987	99.60%	GDP			14	2	16
Northeast Barrier CV	1994	77.30%	GDP			3	0	3
I-376 CV	1994	96.00%	GDP			5	0	5
PA 66 CV	1994	95.70%	GDP	Toll Index		2	0	2
Mon Fayette CV	1994	92.40%	GDP			3	2	5

Source: CDM Smith

Aside from the four abovementioned equations at single- and small barrier-system toll plaza groupings with poor statistical fits, the remaining equations that correspond to a significant majority of Pennsylvania Turnpike toll transactions and revenues exhibit robust adjusted R^2 statistics, ranging between 91.6% and 99.6%. Such relatively high statistical fits indicate good relationships.

With the final equations, socioeconomic, toll index, and fuel price forecasts were applied to the regression coefficients, as appropriate, to estimate future long-term travel demand. Socioeconomic forecasts were obtained from both Woods & Poole Economics, Inc. at a detailed county level and Moody's Analytics at a more macroscopic statewide and metropolitan statistical area (MSA) level. Both sources forecast almost identical long-term annual real GRP trends for comparable statewide and MSA geographies, with very minor average growth rate differentials through 2035 and slight divergence thereafter. Given the availability of Woods & Poole forecasts at a granular county level, it was applied to equations to forecast baseline travel demand. Fuel price forecasts were applied to the Northeast passenger car equation, sourced from the EIA; and, the toll index forecast assumes a 6% annually-recurring increase through 2020, 5% thereafter through 2025, and a deceleration to 3% in 2028 and thereafter.

In further traffic and revenue modeling, it was decided that forecast growth estimates from the four sub-par equations fits not be applied. Instead, it was decided that alternative growth forecasts from a simpler, non-econometric based extrapolation of most recent historical trends be employed. A similar recommendation to consider simpler, alternative forecasts for the remaining barrier-system forecasts was also made because of the more localized characteristics of such facilities. Given the acceptable logic and statistical significance of the ticket-system equations, it was recommended that the econometric-based growth forecasts be applied in further traffic and revenue modeling for those major facilities.

3.3.2 Demand Growth Results

Econometrically-derived travel demand forecasts for the Pennsylvania Turnpike are summarized in Table 3-7 below, based on applied forecasts for the regional socioeconomics, toll index, and fuel prices to the respective regression coefficients. Compound average growth rates (CAGR) for the plaza groupings are shown for three historical timeframes as comparative context, and generally in ten-year future increments through year 2050. The last column in Table 3-7 presents the average growth over the entire 2016 through 2050 forecast period.

Table 3-7
Transaction Growth Summary

Grouping/Vehicles	'87-'16	'94-'16	'07-'16	'16-'30	'30-'40	'40-'50	'16-'50
Gateway PV	1.7%	1.4%	1.7%	1.2%	1.0%	1.0%	1.1%
Pittsburgh PV	0.8%	0.7%	-0.3%	0.4%	0.6%	0.5%	0.5%
Western Rural PV	0.9%	0.8%	-0.6%	0.4%	0.6%	0.5%	0.5%
Eastern Rural PV	2.2%	1.9%	0.4%	1.7%	1.6%	1.5%	1.6%
Philadelphia PV	2.1%	1.4%	0.3%	0.9%	1.0%	0.8%	0.9%
Northeast Ticket PV	3.0%	2.0%	-0.3%	2.5%	2.2%	1.2%	2.0%
Northeast Barrier PV	#N/A	0.4%	-0.4%	0.8%	0.5%	0.2%	0.5%
I-376 PV	#N/A	1.7%	-1.4%	2.0%	1.4%	0.8%	1.5%
PA 66 PV	#N/A	3.0%	-1.1%	1.0%	0.8%	0.4%	0.8%
Mon Fayette PV	#N/A	3.1%	0.5%	0.5%	0.6%	0.3%	0.5%
Gateway CV	0.6%	0.7%	0.1%	0.5%	0.6%	0.5%	0.5%
Pittsburgh CV	1.4%	1.4%	-0.2%	0.9%	1.0%	0.9%	1.0%
Western Rural CV	1.4%	1.5%	-1.3%	0.6%	1.0%	0.9%	0.8%
Eastern Rural CV	2.6%	2.6%	0.5%	2.1%	2.0%	1.8%	2.0%
Philadelphia CV	1.8%	2.3%	0.7%	1.2%	1.3%	1.2%	1.2%
Northeast Ticket CV	4.1%	3.6%	1.3%	2.8%	2.3%	2.1%	2.5%
Northeast Barrier CV	#N/A	1.6%	2.1%	0.8%	0.8%	0.8%	0.8%
I-376 CV	#N/A	4.7%	1.8%	3.1%	2.1%	1.7%	2.4%
PA 66 CV	#N/A	4.5%	1.7%	1.3%	0.7%	0.2%	0.8%
Mon Fayette CV	#N/A	6.3%	9.6%	2.1%	1.7%	1.5%	1.8%

Source: CDM Smith

Average annual growth rates vary by toll plaza grouping, vehicle category, and period (hence, subcategorizing the facilities as conducted); consequently, it is challenging to concisely summarize. However, generally, passenger car growth was historically slower than commercial vehicle growth. Barrier-system facilities' transactions generally grew relatively faster than the older ticket-system facilities. Also, for the major ticket-system groupings, the western portions (Gateway, Pittsburgh, and Western Rural) grew slower than the eastern portions (Eastern Rural, Philadelphia, and the Northeast Extension). All three generalized relativities are expected to continue through the econometric-based growth forecasts. Additionally, the future growth in transactions is universally forecasted to decelerate relative to historical trends.

A refined traffic and revenue analysis is the last component of the forecasting analysis. Growth rates developed from this econometric regression analysis are conditionally applied to further traffic and revenue modeling. Some post-processing adjustments to the econometric forecasts (e.g., converging 2017 forecasts with actual observations, etc.) prior to further modeling are expected, which consider additional factors such as long-term roadway capacities, etc. Also, some of the econometrically-based forecasts for smaller, barrier-system facilities may be dismissed due to relatively weak descriptor statistics and supplanted with alternative growth assumptions via recent trend extrapolations or other non-econometric means.

---

[i] Arvedlund, E. (2014, December 7). Conference to look at region's affordable housing. Retrieved from: http://articles.philly.com/2014-12-07/real_estate/56807054_1_affordable-housing-low-income-housing-tax-credits-affordability

Chapter 4

Transaction and Toll Revenue Forecasts

Traffic and gross toll revenue forecasts are presented in this chapter for the Ticket System, the Barrier System, and the total Turnpike System. Forecasts are presented by fiscal year from 2017-18 through 2047-48. Also presented in this chapter are important inputs to the forecasts, including committed roadway projects, assumed future toll rate increases and assumed future E-ZPass market shares.

4.1 Committed Turnpike System Roadway Improvements

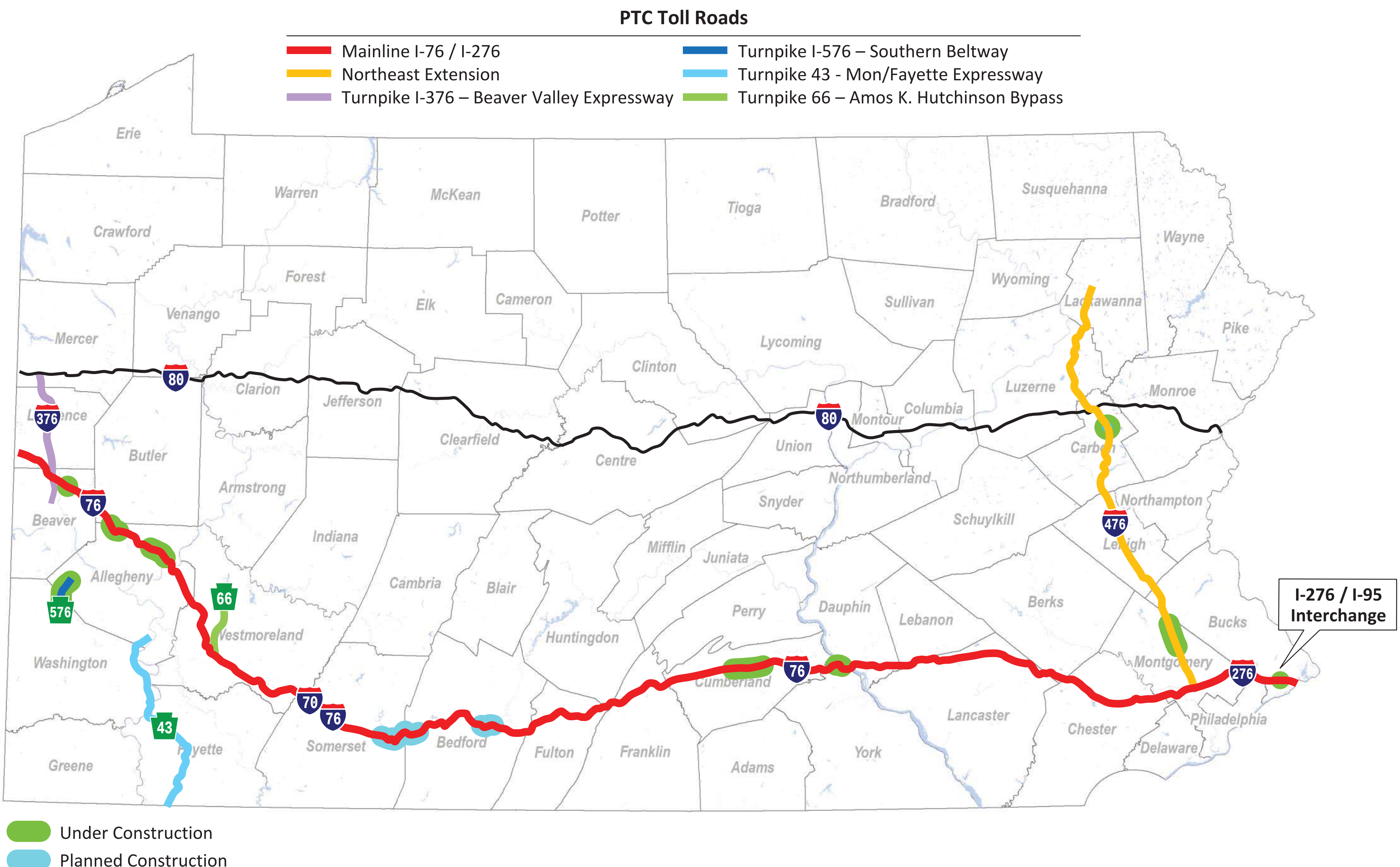
Through discussions with PTC personnel and by reviewing both the PTC Construction website and the State Transportation Improvement Plan (STIP) and Twelve-Year Program (TYP), CDM Smith identified the major committed roadway improvements that would potentially impact traffic and toll revenue on the Turnpike System. Projects were identified on the Mainline I-76/276 and the Northeast Extension. **Table** 4-1 lists the identified projects and Figure 4-1 presents the locations of the projects. A brief description of each project is provided below.

Table 4-1

Major Committed Roadway Improvements on the Pennsylvania Turnpike Sytem (1)

Milepost	Location	Description	Actual or Assumed Start Date	Assumed Completion Date
Mainline I-76/I-276				
12-14	Beaver County	Reconstruct and widen to 3 lanes in each direction	September 2013	December 2020
28-31	Alleghany and Butler Counties	Reconstruct and widen to 3 lanes in each direction	2019	2021
40-48	Alleghany County	Replace 6 overhead bridges and widen to 6 lanes in each direction	February 2013	Fall 2019
124-134	Somerset and Bedford Counties	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
149-155	Bedford County	Reconstruct and widen to 3 lanes in each direction	To be determined	To be determined
202-206	Cumberland County	Reconstruct and widen to 3 lanes in each direction	September 2016	December 2018
242-245	York County	Reconstruct and widen to 3 lanes in each direction	Spring 2015	Spring 2018
Mainline I-76/I-276 and I-95 Interchange				
356-360	I-95 to Delaware River Bridge (Bucks County)	•Widen I-276 to 3 lanes in each direction	Fall 2014	December 2017
		•Construct and open new ramps between I-95 and I-276	Fall 2015	September 2018
Northeast Extension I-476				
A31-A38	Montgomery County	Reconstruct and widen to 3 lanes in each direction	Early 2018	Late 2020
A89	Hawk Falls Bridge (Carbon County)	Completely replace two existing bridges	June 2012	June 2022
Southern Beltway Toll 576				
I-376 to U.S. 22	Washington and Allegheny Counties	Convert the existing Findlay Connector to a cashless tolling facility	2017	Spring 2018
US-22 to I-79	Washington and Allegheny Counties	Construct a 12.5-mile cashless tolling extension of Toll 576 from the southern terminus of the Findlay Connector at US-22 to I-79 including four new interchanges	December 2016	Summer 2021

(1) The roadway improvement projects shown in this table are a small subset of the projects listed in the PTC's Major Design and Construction Projects website and listed in the Proposed Twelve Year Program



PENNSYLVANIA TURNPIKE COMMISSION (PTC) MAJOR ROADWAY IMPROVEMENT PROJECTS

FIGURE 4-1

4.1.1 Mainline I-76/I-276 Roadway Improvement Projects

Milepost (MP) 12 to 14 Roadway and Bridge Reconstruction – This two-phase project involves the total reconstruction and widening of two miles of the mainline Interstate 76 between Milepost 12 and Milepost 14. Upon completion of this project the existing four-lane facility, will be upgraded to include six 12-foot travel lanes, three in each direction, 12-foot shoulders and 10-foot medians in each direction. In order to accommodate the new six lane facility, three early action bridges including, two overhead Norfolk Southern railroad bridges will be replaced prior to the start of construction of the Turnpike mainline. Stage 1 of the project was completed in November 2017. Stage 2 is anticipated to be completed in December 2020.

MP 28 to MP 31 Reconstruction and Widening – This project involves the full-depth reconstruction and widening of the Pennsylvania Turnpike from four travel lanes to six travel lanes from Milepost 28 to Milepost 31 in Cranberry Township, Butler County and Marshall Township, Allegheny County. The project will begin on the east side of the Cranberry Interchange, tying into the eastbound acceleration lane and westbound deceleration lane. The project will end on the west side of the Warrendale Toll Plaza and result in two lanes of Express E-ZPass in each direction. Project design is scheduled to be completed in spring 2019, with construction lasting from summer 2019 to 2021.

MP 40 to MP 48 Reconstruction and Widening – Beginning in early 2013, the PTC started total roadway reconstruction and widening of eight miles of the PA Turnpike and replacement of six bridges crossing over the highway. With more than 40,000 cars and trucks traveling this stretch per day, it is one of the busiest parts of the Turnpike in the region. When complete, this project will tie directly into the newly constructed, three-lane Allegheny River Bridges completed in October 2010. The project is scheduled to be completed in late 2019.

MP 124 to MP 134 Reconstruction and Widening – This project includes the reconstruction and widening of approximately nine miles of the PA Turnpike, including some curve flattening on the mainline, replacement of three overhead bridges and three mainline bridges. Also included is the New Baltimore Slope Remediation project located from Milepost 127.9 (Tunnel Road) to Milepost 128.7 (0.3 miles West of Findley Street) in Allegheny Township, Somerset County. The widening of the Turnpike mainline will be completed in two construction contracts, one from Milepost 124.5 to Milepost 130.5 and one from Milepost 130.5 to Milepost 133.8. Upon completion of the projects, the Turnpike will be widened from 82 feet to 122 feet and will consist of six travel lanes (three in each direction) with a 26-foot median and 12-foot outside shoulders. The three overhead bridges have been replaced and the New Baltimore Slope Remediation is substantially complete. The turnpike widening schedule has yet to be determined.

MP 149.5 to MP 155.5 Reconstruction and Widening – The PTC plans to invest $150 million to provide for the total roadway reconstruction and widening of six miles of the PA Turnpike, which includes replacing or eliminating bridges. The project area begins at Milepost 149.5 east of the Bedford Interchange (Exit 146) and continues to Milepost 155.5 west of the Breezewood Interchange (Exit 161), in Snake Spring and West Providence Townships, Bedford County.

MP 202 to MP 206 Reconstruction and Widening – This project will reconstruct the existing roadway, shoulders, and median and add a third travel lane in each direction for a five-mile stretch just east of the Blue Mountain interchange in Cumberland County. Phase 1, which included construction of a third lane and shoulders in each direction was completed in December 2017. Phase

2, during which traffic will be shifted onto these outside lanes while the median and interior lanes are excavated and reconstructed, is ongoing and expected to be completed in December 2018.

MP 242 to MP 245 Reconstruction and Widening – This project involves widening the existing 4-lane highway to six lanes (three in each direction) with a 26-foot median from just east of the Harrisburg West interchange (MP 242) to the tie in to the new Susquehanna River Bridge Project (MP 245.4), which will complete six lanes from the Harrisburg West Interchange to the Harrisburg East Interchange (Exit 247). Two lanes of traffic in each direction will be maintained on the Turnpike at most times during construction. All mainline work being is expected to be completed in 2018.

4.1.2 Pennsylvania Turnpike I-276/I-95 Interchange Project

This is a major project that will be completed in three stages. The project includes the construction of a high-speed, full-access interchange between I-276 and a re-designated I-95, making I-95 continuous through the mid-Atlantic region. The project also includes roadway widening on I-276 from immediately west of Interchange 351 (Bensalem) eastward to the western side of the Delaware River Bridge. A new parallel bridge on I-276 will be constructed over the Delaware River. In addition, the project includes changes to the tolling locations and toll structure on I-276.

The following describes the three stages of the I-276/I-95 Interchange Project. Only Stage 1 is under active construction. Estimated traffic and toll revenue impacts associated with Stage 1 are included in this study. Stages 2 and 3 are described below only for informational purposes.

Stage 1: (Mile post 356 to 360), expected completion in 2018

- The new westbound mainline toll plaza on I-276 just west of the Delaware River Bridge was opened in January 2016. Tolls are collected based on a vehicle's number of axles.
- Simultaneously with the opening of the new westbound toll plaza, a new eastern terminus of the I-276/I-76 Ticket System opened. This new mainline toll plaza is located between the Street Road Interchange and I-95.
- I-276 roadway widening from Interchange 351 to the Delaware River Bridge was completed in 2017.
- New high-speed ramps between I-95 and I-276 (northbound I-95 to eastbound I-276, and westbound I-276 to southbound I-95) are anticipated to open in September 2018.

Stage 2 (MP 351 to MP 356) includes the remaining six ramp movements of the new interchange and completion of the mainline widening. This stage is not currently funded, although final design has continued on some contracts.

Stage 3 (MP 320) brings an additional bridge over the Delaware River parallel to the existing bridge. This stage is not funded and is unlikely to begin construction until after 2025.

4.1.3 Northeast Extension (I-476) Roadway Improvement Projects

MP A31 to MP A38 Total Reconstruction Project - This section of the Turnpike will be completely reconstructed from the ground up and widened from two lanes in each direction with limited shoulders to three lanes in each direction with 12-foot right and left shoulders. The overhead bridges along the project corridor are only wide enough to accommodate the current roadway width, so they need to be replaced before the mainline Turnpike widening can occur. Construction on the overhead bridges began in the spring of 2013. Construction on the mainline Turnpike recently began; the opening of northbound and southbound traffic to three lanes in each direction is scheduled for late fall 2020. The anticipated completion of the entire project is expected to occur by early summer 2021.

Hawk Falls Bridge Replacement Project (MP 89) – The goal of this project is to completely replace the Hawk Falls Bridge and the Hickory Run Bridge. The bridge carries two lanes of Turnpike traffic, in each direction, over Mud Run in Penn Forest Township and Kidder Township, Carbon County. The new bridge will carry two traffic lanes and shoulders in each direction. The existing Hickory Run Bridge, directly to the north of the Hawk Falls Bridge, will also be replaced. This three-span mainline bridge, measuring 111' in length, carries the Turnpike over Hickory Run Road (SR 0534). Estimated project completion is June 2022.

4.1.4 Southern Beltway (Toll 576)

Findlay Connector Cashless Tolling Conversion - This project will convert the Findlay Connector (Toll 576) to a cashless tolling facility by constructing overhead gantries and demolishing existing toll facilities on exit ramps. This work is part of the PA Turnpike's conversion to cashless tolling on Toll 576, which will eventually connect to the Southern Beltway once work there is complete.

Southern Beltway – The current Toll 576, referred to as the Findlay Connector, runs six miles south from I-76 at Pittsburgh International Airport to U.S. 22. This section of highway was opened in 2006. The Southern Beltway project will extend Toll 576 another 13 miles southeast from U.S. 22 to I-79 near the Allegheny/Washington County line and include four new interchanges. The project is divided into nine construction segments, with the last one expected to be completed in summer 2021, when the highway will be opened to traffic. The entire length of Toll 576 will be a cashless tolling facility.

4.2 Construction Related Impacts on Turnpike System Traffic

Ongoing construction related impacts stemming from roadway widening and reconstruction projects on the Turnpike System are expected to be minimal. Construction projects on the Turnpike System are planned to minimize lane closures or any restrictions to the Turnpike. When such measures are necessary, they are conducted overnight to avoid interfering with heavier daytime traffic volumes. Generally, preference is given to Turnpike mainline traffic and construction-related disruptions are more likely to affect cross streets and Turnpike access points. Two travel lanes are maintained in both directions during construction activities.

For purposes of conservatism, the only positive traffic and toll revenue impacts that are included as part of this study are for the Mainline I-76/I-276 and I-95 Interchange Project and the opening of the Southern Beltway to I-79. As shown in Table 4-1, the partial I-95 Interchange project is assumed to open in September 2018; it is estimated to add approximately $6.5 million to total System toll revenue in the first full year of operation. The Southern Beltway toll road extension to I-79 is currently assumed to open in the summer of 2021. To be conservative from a toll revenue perspective, we have assumed a January 2022 opening date for this project. It is expected to add approximately $6.7 million to total System toll revenue in 2022.

4.3 Assumed Toll Rate Increases on the Turnpike

At the direction of the PTC, annual toll rate increases are assumed to occur on the entire Turnpike System. The toll rate increases are assumed to occur within several days of January 1 of each year. Table 4-2 presents actual and assumed percent increases in toll rates for each calendar year from 2015 through 2048.

As shown in Table 4-2, the assumed percent increases in toll rates are identical for cars and trucks, and for E-ZPass and cash transactions throughout the forecast period. Future toll-rate increases range from 3.0 to 6.0% per year between 2019 and 2048. Consistent with the PTC tolling policy, all E-ZPass tolls are rounded to the nearest cent, and cash toll rates are rounded up to the nearest nickel.

At the direction of the PTC, the toll rate increases shown in Table 4-2 were used in the development of the traffic and toll revenue forecasts, including the assumption that the percent toll rate increases are the same for both E-ZPass and cash transactions. The PTC reserves the right to implement toll rate differentials between E-ZPass and cash in future years.

Table 4-2
Actual and Assumed Future Toll Rate Increases (1)

Calendar Year	Percent Increase For Cars and Trucks		Sample Toll Rates (2)					
			$1.00 Toll		$2.50 Toll		$10.00 Toll	
	Cash	E-ZPass	Cash	E-ZPass	Cash	E-ZPass	Cash	E-ZPass
2015 (3)	5.0	5.0	$1.00	$1.00	$2.50	$2.50	$10.00	$10.00
2016 (3)	6.0	6.0	1.10	1.06	2.65	2.65	10.60	10.60
2017 (3)	6.0	6.0	1.20	1.12	2.85	2.81	11.25	11.24
2018 (3)	6.0	6.0	1.30	1.19	3.05	2.98	11.95	11.91
2019	6.0	6.0	1.40	1.26	3.25	3.16	12.70	12.62
2020	6.0	6.0	1.50	1.34	3.45	3.35	13.50	13.38
2021	5.0	5.0	1.60	1.41	3.65	3.52	14.20	14.05
2022	5.0	5.0	1.70	1.48	3.85	3.70	14.95	14.75
2023	5.0	5.0	1.80	1.55	4.05	3.89	15.70	15.49
2024	5.0	5.0	1.90	1.63	4.30	4.08	16.50	16.26
2025	5.0	5.0	2.00	1.71	4.55	4.28	17.35	17.07
2026	4.0	4.0	2.10	1.78	4.75	4.45	18.05	17.75
2027	3.5	3.5	2.20	1.84	4.95	4.61	18.70	18.37
2028	3.0	3.0	2.30	1.90	5.10	4.75	19.30	18.92
2029	3.0	3.0	2.40	1.96	5.30	4.89	19.90	19.49
2030	3.0	3.0	2.50	2.02	5.50	5.04	20.50	20.07
2031	3.0	3.0	2.60	2.08	5.70	5.19	21.15	20.67
2032	3.0	3.0	2.70	2.14	5.90	5.35	21.80	21.29
2033	3.0	3.0	2.80	2.20	6.10	5.51	22.50	21.93
2034	3.0	3.0	2.90	2.27	6.30	5.68	23.20	22.59
2035	3.0	3.0	3.00	2.34	6.50	5.85	23.90	23.27
2036	3.0	3.0	3.10	2.41	6.70	6.03	24.65	23.97
2037	3.0	3.0	3.20	2.48	6.95	6.21	25.40	24.69
2038	3.0	3.0	3.30	2.55	7.20	6.40	26.20	25.43
2039	3.0	3.0	3.40	2.63	7.45	6.59	27.00	26.19
2040	3.0	3.0	3.55	2.71	7.70	6.79	27.85	26.98
2041	3.0	3.0	3.70	2.79	7.95	6.99	28.70	27.79
2042	3.0	3.0	3.85	2.87	8.20	7.20	29.60	28.62
2043	3.0	3.0	4.00	2.96	8.45	7.42	30.50	29.48
2044	3.0	3.0	4.15	3.05	8.75	7.64	31.45	30.36
2045	3.0	3.0	4.30	3.14	9.05	7.87	32.40	31.27
2046	3.0	3.0	4.45	3.23	9.35	8.11	33.40	32.21
2047	3.0	3.0	4.60	3.33	9.65	8.35	34.45	33.18
2048	3.0	3.0	4.75	3.43	9.95	8.60	35.50	34.18

(1) Future toll rate increases are assumed to be implemented within several days of January 1.
(2) By PTC Policy, cash toll rates are rounded up to the nearest nickel and E-ZPass rates are rounded to the nearest penny.
(3) Reflects actual toll rate increases on the Turnpike System.

4.4 Estimated E-ZPass Market Shares in Future Years

Because a price differential has been established between cash and E-ZPass toll rates, it is important to estimate future year E-ZPass market shares in order to forecast gross toll revenues. Historically, cash and E-ZPass toll rates were virtually identical until 2011, differing only because cash rates were rounded up to the nearest nickel while E-ZPass rates were rounded up to the nearest cent. There was no reason for a customer to choose E-ZPass over cash based solely on the toll rate.

In 2011, 2012, 2013 and 2014, differential toll rate increases were implemented. As a result of these differential rate increases, cash toll rates are theoretically 39.5% greater than E-ZPass rates. The actual differential is even greater for lower price tolls due to the effect of rounding up to the nearest nickel for cash rates. The differential creates incentives for cash customers to shift to E-ZPass, and for new accounts to favor E-ZPass over cash.

Future year E-ZPass market shares were developed based on the assumed future toll rate increases shown in Table 4-2, and the historic trends in E-ZPass market share. Table 4-3 presents the actual percent E-ZPass market shares from calendar years 2011 through 2017, and the estimated percent E-ZPass market shares from 2018 through 2048 for passenger cars and commercial vehicles. Also shown are the percentage point increases in the E-ZPass market share over the prior year.

In 2011, the E-ZPass market share totaled 60.2% for passenger cars and 79.0% for commercial vehicles. By 2017, those values increased to 78.3% for passenger cars and 90.1% for commercial vehicles. A large portion of those increases were the direct result of increasing discounts for E-ZPass trips versus cash trips implemented from 2011 through 2014.

The estimated E-ZPass market shares for calendar years 2018 through 2048 continues to increase, but at a lower rate than in the recent past. This is because the toll differential is assumed to remain constant over this time period and because the E-ZPass market share is reaching its saturation point. In practical terms, there will likely always be customers who choose not to use E-ZPass. As shown in Table 4-3, by 2048 passenger car E-ZPass market share is estimated at 89.7% and the commercial vehicle market share is estimated to be 95.0%. For purposes of this analysis, it was assumed that the maximum E-ZPass market share would be 95.0%. Given the already high participation rate by commercial vehicles, they reach this level by 2030.

Table 4-3
Actual and Estimated E-ZPass Market Share
Pennsylvania Turnpike System

Calendar Year		Passenger Cars: Percent Market Share	Passenger Cars: Percent Increase in Market Share	Commercial Vehicles: Percent Market Share	Commercial Vehicles: Percent Increase in Market Share	Total Vehicles: Percent Market Share	Total Vehicles: Percent Increase in Market Share
2011	(1)	60.2		79.0		62.6	
2012	(1)	64.3	4.1	81.6	2.6	66.5	3.9
2013	(1)	68.8	4.5	84.2	2.6	70.8	4.3
2014	(1)	72.0	3.2	86.0	1.8	73.9	3.1
2015	(1)	73.9	1.9	87.8	1.8	75.8	1.9
2016	(1)	76.2	2.3	89.2	1.4	78.0	2.2
2017	(1)	78.3	2.1	90.1	0.9	79.9	1.9
2018	(2)	80.5	2.2	91.1	1.0	82.0	2.1
2019	(2)	81.9	1.4	91.9	0.8	83.3	1.3
2020	(2)	83.2	1.3	92.6	0.7	84.5	1.2
2021	(2)	84.2	1.0	93.1	0.5	85.5	1.0
2022	(2)	84.3	0.1	93.6	0.5	85.6	0.1
2023	(2)	85.0	0.7	94.1	0.5	86.3	0.7
2024	(2)	85.6	0.6	94.6	0.5	86.9	0.6
2025	(2)	86.2	0.6	94.8	0.2	87.4	0.5
2026	(2)	86.7	0.5	94.8	0.0	87.9	0.5
2027	(2)	87.2	0.5	94.9	0.1	88.3	0.4
2028	(2)	87.7	0.5	94.9	0.0	88.7	0.4
2029	(2)	88.1	0.4	94.9	0.0	89.1	0.4
2030	(2)	88.6	0.5	95.0	0.1	89.5	0.4
2031	(2)	88.9	0.3	95.0	0.0	89.8	0.3
2032	(2)	89.0	0.1	95.0	0.0	89.9	0.1
2033	(2)	89.1	0.1	95.0	0.0	90.0	0.1
2034	(2)	89.2	0.1	95.0	0.0	90.1	0.1
2035	(2)	89.3	0.1	95.0	0.0	90.1	0.0
2036	(2)	89.3	0.0	95.0	0.0	90.2	0.1
2037	(2)	89.4	0.1	95.0	0.0	90.2	0.0
2038	(2)	89.4	0.0	95.0	0.0	90.2	0.0
2039	(2)	89.5	0.1	95.0	0.0	90.3	0.1
2040	(2)	89.5	0.0	95.0	0.0	90.3	0.0
2041	(2)	89.5	0.0	95.0	0.0	90.3	0.0
2042	(2)	89.5	0.0	95.0	0.0	90.4	0.1
2043	(2)	89.6	0.1	95.0	0.0	90.4	0.0
2044	(2)	89.6	0.0	95.0	0.0	90.4	0.0
2045	(2)	89.6	0.0	95.0	0.0	90.4	0.0
2046	(2)	89.6	0.0	95.0	0.0	90.4	0.0
2047	(2)	89.7	0.1	95.0	0.0	90.5	0.1
2048	(2)	89.7	0.0	95.0	0.0	90.5	0.0

(1) Actual E-ZPass market share.
(2) Estimated E-ZPass market share.

4.5 Transaction and Gross Toll Revenue Forecasts

This section summarizes the forecasts of toll transactions and toll revenue based on the information provided in the preceding sections of this report. All previously discussed information regarding future transaction growth rates in the various Turnpike corridors (Chapter 3) as well as assumed toll rates, E-ZPass market share, etc. are all brought together to develop the following forecasts.

A more detailed approach was taken in developing the short term forecast over the next two calendar years (2018 and 2019). Forecasts were developed on monthly basis during these two years for passenger cars and commercial vehicles and for each Turnpike toll facility (Ticket System, Beaver Valley, Mon/Fayette Expressway, etc.). This accomplished two things. First it allowed us to take into account the most recent growth trends on all facilities. Second, it allowed us to create a "normal" calendar year by 2019, correcting for such things as adverse weather, the number of weekdays and weekend days in a month, and unique impacts such as the closure of the DRB in early 2017. Once a normalized 2019 was developed, the longer-term growth rates established through the socioeconomic analysis described in Chapter 3 were applied to it and all future years throughout the forecast period.

Table 4-4 shows the historical and near term forecast of toll transaction growth rates on the Turnpike in relation to actual and estimated GDP, GRP and GSP between 2010 and 2020. As shown, the recent low growth experience in 2017 (-0.9%) is estimated to continue over the short term, with total toll transactions forecasted to grow by only 0.0% in 2018 and -0.5% in 2019. This is in spite of estimated positive GDP, GRP and GSP growth (between 2.0% and 3.0%) over this same period. The low growth in 2017 was impacted by the 7-week closure of the DRB, but it is also likely that the effect of recent toll increases also dampened traffic growth. CDM Smith factored in continued low growth in 2018 and 2019 to account for the continued impact of toll increases. In addition, we have factored in negative growth in January and February 2019 to reflect more normal negative weather impacts. After 2019, we begin to factor in the longer-term growth rates established in Chapter 3, and factoring in the programed toll increases throughout the forecast period. Overall, total Turnpike System toll transaction growth is estimated to average just under 0.9% over the entire 30-year forecast period.

Table 4-4

Actual and Forecasted Measures of Commercial Activity and Growth in Total Turnpike System Transactions

Percent Change over Prior Year

Calendar Year	Gross Domestic Product Growth[(1)] (U.S.)	Gross Regional Product Growth[(1)] (NJ, NY, PA)	Gross State Product Growth[(1)] (PA)	PA Turnpike System Percent Transaction Growth[(2)]: Passenger Cars	Commercial Vehicles	All Vehicles
2010 (actual)	2.5%	2.6%	2.7%	1.0%	4.0%	1.3%
2011 (actual)	1.6	0.4	1.3	-1.1	1.0	-0.9
2012 (actual)	2.2	2.5	1.6	0.3	0.6	0.3
2013 (actual)	1.7	0.6	1.6	0.6	3.0	0.9
2014 (actual)	2.6	1.5	2.0	0.0	4.2	0.5
2015 (actual)	2.9	1.9	2.3	2.3	3.9	2.5
2016 (actual)	1.5	0.5	0.6	3.1	4.2	3.3
2017 (actual)	2.3	1.6	1.9	-1.1	0.2	-0.9
2018 (forecast)	3.0	3.0	3.0	-0.2	1.6	0.0
2019 (forecast)	2.6	2.0	2.2	-0.7	0.1	-0.5
2020 (forecast)	0.9	0.2	0.3	0.0	0.9	0.1

(1) The percent changes in U.S. GDP, GRP, and GSP are based on chained 2009 dollars. The U.S. GDP is actual through 2017. The GRP and GSP are actual through 2016. Actual data was obtained from the U.S. Bureau of Economic Analysis. Forecast data was from Moody's Analytics baseline forecast (April 2018 for regional, February 2018 for Pennsylvania).

Table 4-5 shows estimated Ticket System transactions and gross toll revenue through FY 2047-48. Actual data is shown for FY 2016-17 and for the first nine months of FY 2017-18 (through February 2018). As shown, total ticket toll transactions are estimated to increase from about 157.3 million in FY 2016-17 (the latest full year of actual experience) to just over 198.2 million by FY 2047-48; this represents a total increase over this period of 26.0% or an average annual growth rate of 0.75%. Annual gross toll revenue is estimated to increase from $1.0 billion in FY 2016-17 to just over $4.0 billion by FY 2047-48. This represents an average annual increase of about 4.6% and includes the impacts of normal growth, annual toll rate increases, and the impact of the I-95 Interchange.

Table 4-6 identifies the same transaction and gross toll revenue information for the Barrier System. As shown, total transactions are estimated to increase from about 43.2 million in FY 2016-17 to 62.1 million by FY 2047-48; this represents a total increase over this period of 43.7% or an average annual increase of about 1.18%. This is slightly greater than the rate of growth for the Ticket System but is positively impacted by the addition of the Southern Beltway extension to I-79 in January 2022. This adds two more mainline tolling zones to this corridor. Absent these two new tolling zones, average annual growth over the forecast period would have been about 0.70%. Estimated annual toll revenue is expected to increase from about $110.6 million in FY 2016-17 to $450.4 million by the end of the forecast period. This represents a 4.6% annual rate of increase. Again, this is influenced by normal growth, toll increases, and the impact of the Southern Beltway extension to I-79.

Table 4-7 identifies total combined transactions and gross toll revenue and also factors in estimated toll discounts and adjustments. The vast majority of the discounts and adjustments results from commercial account toll adjustments due to the Turnpike's volume discount program. The volume discount program allows for a 3.0% discount to be provided to accounts that accrue $20,000 or more in monthly tolls. Discounts and adjustments shown in Table 4-7 assume no further changes to the post-paid commercial volume discount program during the forecast period. The result is that the current forecasts have a negative adjustment applied for FY 2017-18 and beyond that equals 1.3% of the commercial vehicle gross toll revenue, which is based on the most recent 12 months of actual experience.

As shown in Table 4-7, total transactions increase from 200.5 million in FY 2016-17 to just over 260.3 million by FY 2047-48; this represents a total increase of about 30.0%, or an average annual increase of 0.85%, over the forecast period. Total net toll revenue, after discounts and adjustments, is estimated to grow from approximately $1.1 billion in FY 2016-17 to just under $4.5 billion by FY 2047-48, representing a 4.6% average annual rate of growth. This includes normal growth, toll increase impacts, additional revenue from the I-95 Interchange and Southern Beltway projects, and toll discounts and adjustments.

Table 4-5
Ticket System: Estimated Annual Transactions and Gross Toll Revenue (1)
Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

		Annual Traffic			Annual Gross Toll Revenue	
Fiscal Year	Passenger Cars	Commercial Vehicles	Total Vehicles	Passenger Cars	Commercial Vehicles	Total Vehicles
2016-17 (2) (4)	135,128	22,179	157,307	$564,915	$439,495	$1,004,410
2017-18 (3)	134,129	22,408	156,537	598,105	472,972	1,071,077
2018-19 (5)	133,599	22,374	155,973	633,248	499,276	1,132,524
2019-20	133,412	22,527	155,939	671,305	531,859	1,203,164
2020-21	133,773	22,728	156,501	711,251	565,746	1,276,997
2021-22	134,685	22,978	157,663	751,554	599,878	1,351,432
2022-23	135,928	23,256	159,183	795,590	636,850	1,432,440
2023-24	137,132	23,532	160,664	841,671	676,000	1,517,670
2024-25	138,413	23,818	162,231	890,797	717,976	1,608,773
2025-26	139,936	24,125	164,061	940,670	760,445	1,701,115
2026-27	141,553	24,430	165,983	985,925	799,239	1,785,164
2027-28	143,137	24,720	167,857	1,027,955	835,336	1,863,291
2028-29	144,685	25,009	169,695	1,067,694	870,468	1,938,162
2029-30	146,203	25,298	171,501	1,108,561	906,942	2,015,504
2030-31	147,687	25,587	173,274	1,151,269	944,806	2,096,076
2031-32	149,157	25,875	175,033	1,197,183	984,113	2,181,296
2032-33	150,613	26,163	176,776	1,245,743	1,024,916	2,270,659
2033-34	152,018	26,451	178,469	1,295,726	1,067,273	2,362,999
2034-35	153,382	26,739	180,120	1,347,237	1,111,254	2,458,491
2035-36	154,707	27,027	181,734	1,400,330	1,156,926	2,557,256
2036-37	156,009	27,310	183,318	1,455,206	1,204,091	2,659,296
2037-38	157,224	27,584	184,808	1,511,294	1,252,670	2,763,964
2038-39	158,398	27,859	186,257	1,569,031	1,303,100	2,872,131
2039-40	159,554	28,134	187,688	1,628,713	1,355,455	2,984,168
2040-41	160,689	28,410	189,099	1,690,343	1,409,816	3,100,159
2041-42	161,796	28,687	190,483	1,753,937	1,466,264	3,220,202
2042-43	162,870	28,965	191,835	1,819,457	1,524,879	3,344,336
2043-44	163,916	29,244	193,160	1,887,030	1,585,753	3,472,783
2044-45	164,936	29,524	194,460	1,956,723	1,648,967	3,605,690
2045-46	165,928	29,805	195,733	2,028,563	1,714,605	3,743,168
2046-47	166,905	30,087	196,992	2,102,783	1,782,770	3,885,552
2047-48	167,869	30,371	198,240	2,179,492	1,853,568	4,033,060

(1) Annual toll rate increases are implemented in January of each year (see Table 4-2).
(2) Reflects actual traffic and revenue experience.
(3) Reflects actual experience through February 2018.
(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(5) Reflects the impacts for I-95 Interchange Stage 1 beginning in September 2018.

Table 4-6
Barrier Systems: Estimated Annual Transactions and Gross Toll Revenue (1)
Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

		Annual Traffic			Annual Gross Toll Revenue	
Fiscal Year	Passenger Cars	Commercial Vehicles	Total Vehicles	Passenger Cars	Commercial Vehicles	Total Vehicles
2016-17 (2) (4)	37,671	5,524	43,195	$73,872	$36,694	$110,566
2017-18 (3) (5)	38,035	5,955	43,989	78,464	41,223	119,687
2018-19 (6)	37,302	5,950	43,252	81,686	43,778	125,464
2019-20	37,065	6,020	43,084	86,357	47,391	133,748
2020-21	36,984	6,089	43,073	91,059	50,866	141,925
2021-22 (7)	39,380	6,423	45,803	97,662	54,886	152,548
2022-23	43,538	6,982	50,520	106,192	59,651	165,844
2023-24	44,579	7,159	51,738	112,616	63,672	176,288
2024-25	45,478	7,318	52,796	119,363	67,894	187,257
2025-26	46,198	7,448	53,646	126,061	71,996	198,058
2026-27	46,818	7,561	54,379	132,178	75,666	207,844
2027-28	47,202	7,641	54,843	137,722	78,999	216,721
2028-29	47,585	7,721	55,306	143,030	82,241	225,271
2029-30	47,945	7,799	55,744	148,412	85,603	234,015
2030-31	48,286	7,876	56,162	153,936	89,086	243,022
2031-32	48,619	7,952	56,571	159,617	92,690	252,308
2032-33	48,941	8,028	56,969	165,446	96,415	261,861
2033-34	49,254	8,103	57,357	171,451	100,275	271,726
2034-35	49,559	8,178	57,737	177,687	104,279	281,967
2035-36	49,855	8,253	58,108	184,160	108,434	292,594
2036-37	50,143	8,327	58,470	190,827	112,727	303,553
2037-38	50,420	8,400	58,820	197,668	117,147	314,815
2038-39	50,695	8,473	59,168	204,724	121,725	326,449
2039-40	50,969	8,546	59,516	212,023	126,474	338,497
2040-41	51,240	8,619	59,860	219,566	131,401	350,966
2041-42	51,505	8,692	60,198	227,337	136,507	363,845
2042-43	51,762	8,765	60,527	235,334	141,800	377,134
2043-44	52,013	8,837	60,850	243,568	147,287	390,855
2044-45	52,257	8,909	61,166	252,049	152,975	405,024
2045-46	52,494	8,981	61,475	260,776	158,871	419,647
2046-47	52,725	9,052	61,777	269,765	164,983	434,748
2047-48	52,951	9,124	62,075	279,034	171,319	450,353

(1) Annual toll rate increases are implemented in January of each year (see Table 4-2).
(2) Reflects actual traffic and revenue experience.
(3) Reflects actual experience through February 2018.
(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(5) Reflects Northeast Extension Barrier and PA I-576 conversion to cashless tolling beginning in April 2018.
(6) Reflects the impacts for I-95 Interchange Stage 1 beginning in September 2018.
(7) Reflects opening of the Southern Beltway between US 22 and I-79 beginning in January 2022.

Table 4-7
Total System: Estimated Annual Transactions and Gross Toll Revenue (1)
Pennsylvania Turnpike Commission

Traffic and Toll Revenue in Thousands

	Annual Traffic			Annual Gross Toll Revenue			Discounts	
Fiscal Year	Passenger Cars	Commercial Vehicles	Total Vehicles	Passenger Cars	Commercial Vehicles	Total Vehicles	and Adjustments (8)	Net Toll Revenue
2016-17 (2) (4)	172,799	27,703	200,501	$638,787	$476,188	$1,114,975	($3,915)	$1,111,061
2017-18 (3) (5)	172,164	28,363	200,527	676,570	514,194	1,190,764	(6,685)	1,184,080
2018-19 (6)	170,901	28,324	199,225	714,934	543,054	1,257,989	(7,060)	1,250,929
2019-20	170,477	28,547	199,024	757,662	579,250	1,336,913	(7,530)	1,329,382
2020-21	170,757	28,817	199,574	802,310	616,612	1,418,922	(8,016)	1,410,906
2021-22 (7)	174,066	29,401	203,467	849,216	654,764	1,503,980	(8,512)	1,495,468
2022-23	179,466	30,237	209,703	901,782	696,502	1,598,284	(9,055)	1,589,229
2023-24	181,712	30,691	212,402	954,287	739,671	1,693,958	(9,616)	1,684,343
2024-25	183,891	31,136	215,027	1,010,161	785,869	1,796,030	(10,216)	1,785,814
2025-26	186,134	31,573	217,707	1,066,731	832,441	1,899,172	(10,822)	1,888,350
2026-27	188,371	31,991	220,362	1,118,104	874,905	1,993,009	(11,374)	1,981,635
2027-28	190,339	32,361	222,700	1,165,677	914,335	2,080,013	(11,886)	2,068,126
2028-29	192,271	32,730	225,001	1,210,723	952,709	2,163,433	(12,385)	2,151,047
2029-30	194,148	33,097	227,245	1,256,973	992,545	2,249,518	(12,903)	2,236,615
2030-31	195,974	33,463	229,436	1,305,205	1,033,893	2,339,098	(13,441)	2,325,657
2031-32	197,776	33,827	231,603	1,356,800	1,076,804	2,433,604	(13,998)	2,419,605
2032-33	199,554	34,191	233,745	1,411,190	1,121,330	2,532,520	(14,577)	2,517,943
2033-34	201,272	34,554	235,826	1,467,177	1,167,548	2,634,725	(15,178)	2,619,547
2034-35	202,940	34,917	237,857	1,524,924	1,215,534	2,740,458	(15,802)	2,724,656
2035-36	204,562	35,280	239,842	1,584,489	1,265,360	2,849,849	(16,450)	2,833,400
2036-37	206,151	35,637	241,788	1,646,032	1,316,818	2,962,850	(17,119)	2,945,731
2037-38	207,644	35,984	243,628	1,708,962	1,369,817	3,078,779	(17,808)	3,060,971
2038-39	209,093	36,332	245,424	1,773,755	1,424,825	3,198,580	(18,523)	3,180,057
2039-40	210,524	36,680	247,204	1,840,736	1,481,930	3,322,666	(19,265)	3,303,400
2040-41	211,929	37,030	248,959	1,909,909	1,541,216	3,451,125	(20,036)	3,431,090
2041-42	213,302	37,379	250,681	1,981,275	1,602,771	3,584,046	(20,836)	3,563,210
2042-43	214,632	37,730	252,362	2,054,791	1,666,679	3,721,470	(21,667)	3,699,804
2043-44	215,929	38,081	254,010	2,130,598	1,733,040	3,863,638	(22,530)	3,841,108
2044-45	217,194	38,433	255,627	2,208,771	1,801,942	4,010,714	(23,425)	3,987,289
2045-46	218,422	38,786	257,208	2,289,339	1,873,476	4,162,815	(24,355)	4,138,460
2046-47	219,630	39,140	258,770	2,372,548	1,947,752	4,320,300	(25,321)	4,294,979
2047-48	220,821	39,495	260,315	2,458,526	2,024,887	4,483,412	(26,324)	4,457,089

(1) Annual toll rate increases are implemented in January of each year (see Table 4-2).
(2) Reflects actual traffic and revenue experience.
(3) Reflects actual experience through February 2018.
(4) The Delaware River Bridge was closed due to structural integrity concerns from January 20, 2017 to March 9, 2017.
(5) Reflects Northeast Extension Barrier and PA I-576 conversion to cashless tolling beginning in April 2018.
(6) Reflects the impacts for I-95 Interchange Stage 1 beginning in September 2018.
(7) Reflects opening of the Southern Beltway between US 22 and I-79 beginning in January 2022.
(8) No changes are assumed in the commercial discount program throughout the forecast period. Impacts are assumed to remain constant at -1.3% of total gross commercial toll revenue, which is based on actual experience during the most recent fiscal year.

Fiduciary Disclaimer

Current accepted professional practices and procedures were used in the development of these updated traffic and revenue forecasts. However, as with any forecast of the future, there may be differences between forecasted and actual results caused by events and circumstances beyond the control of CDM Smith. In formulating its forecasts, CDM Smith has reasonably relied upon the accuracy and completeness of information provided (both written and oral) by the PTC and other local and state agencies. CDM Smith also has relied upon the reasonable assurances of some independent parties and is not aware of any facts that would make such information misleading.

CDM Smith has made qualitative judgments related to several key variables in the development and analysis of the traffic and revenue forecasts that must be considered as a whole; therefore, selecting portions of any individual result without consideration of the intent of the whole may create a misleading or incomplete view of the results and the underlying methodologies used to obtain the results. CDM Smith gives no opinion as to the value or merit to partial information extracted from this report.

All forecasts and projections reported herein are based on CDM Smith's experience and judgment and on a review of information obtained from multiple state and local agencies, including the PTC. These estimates and projections may not be indicative of actual or future values and are therefore subject to substantial uncertainty. Future developments cannot be predicted with certainty and may affect the forecasts or projections expressed in this report, such that CDM Smith does not specifically guarantee or warrant any forecasts or projections contained within this report.

While CDM Smith believes that some of the projections or other forward-looking statements contained within the report are based on reasonable assumptions as of the date in the report, such forward looking statements involve risks and uncertainties that may cause actual results to differ materially from the results predicted. Therefore, following the date of this report, CDM Smith will take no responsibility or assume any obligation to advise of changes that may affect its assumptions contained within the report, as they pertain to: socioeconomic and demographic forecasts, proposed residential or commercial land use development projects and/or potential improvements to the regional transportation network.

CDM Smith is not, and has not been, a municipal advisor as defined in Federal law (the Dodd Frank Bill) to the PTC and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to PTC with respect to the information and material contained in this report. CDM Smith is not recommending and has not recommended any action to the PTC. PTC should discuss the information and material contained in this report with any and all internal and external advisors that it deems appropriate before acting on this information.

EXHIBIT H
SPECIMEN BOND INSURANCE POLICY

[THIS PAGE INTENTIONALLY LEFT BLANK]

ASSURED GUARANTY MUNICIPAL

MUNICIPAL BOND INSURANCE POLICY

ISSUER:

BONDS: $ in aggregate principal amount of

Policy No: -N

Effective Date:

Premium: $

ASSURED GUARANTY MUNICIPAL CORP. ("AGM"), for consideration received, hereby UNCONDITIONALLY AND IRREVOCABLY agrees to pay to the trustee (the "Trustee") or paying agent (the "Paying Agent") (as set forth in the documentation providing for the issuance of and securing the Bonds) for the Bonds, for the benefit of the Owners or, at the election of AGM, directly to each Owner, subject only to the terms of this Policy (which includes each endorsement hereto), that portion of the principal of and interest on the Bonds that shall become Due for Payment but shall be unpaid by reason of Nonpayment by the Issuer.

On the later of the day on which such principal and interest becomes Due for Payment or the Business Day next following the Business Day on which AGM shall have received Notice of Nonpayment, AGM will disburse to or for the benefit of each Owner of a Bond the face amount of principal of and interest on the Bond that is then Due for Payment but is then unpaid by reason of Nonpayment by the Issuer, but only upon receipt by AGM, in a form reasonably satisfactory to it, of (a) evidence of the Owner's right to receive payment of the principal or interest then Due for Payment and (b) evidence, including any appropriate instruments of assignment, that all of the Owner's rights with respect to payment of such principal or interest that is Due for Payment shall thereupon vest in AGM. A Notice of Nonpayment will be deemed received on a given Business Day if it is received prior to 1:00 p.m. (New York time) on such Business Day; otherwise, it will be deemed received on the next Business Day. If any Notice of Nonpayment received by AGM is incomplete, it shall be deemed not to have been received by AGM for purposes of the preceding sentence and AGM shall promptly so advise the Trustee, Paying Agent or Owner, as appropriate, who may submit an amended Notice of Nonpayment. Upon disbursement in respect of a Bond, AGM shall become the owner of the Bond, any appurtenant coupon to the Bond or right to receipt of payment of principal of or interest on the Bond and shall be fully subrogated to the rights of the Owner, including the Owner's right to receive payments under the Bond, to the extent of any payment by AGM hereunder. Payment by AGM to the Trustee or Paying Agent for the benefit of the Owners shall, to the extent thereof, discharge the obligation of AGM under this Policy.

Except to the extent expressly modified by an endorsement hereto, the following terms shall have the meanings specified for all purposes of this Policy. "Business Day" means any day other than (a) a Saturday or Sunday or (b) a day on which banking institutions in the State of New York or the Insurer's Fiscal Agent are authorized or required by law or executive order to remain closed. "Due for Payment" means (a) when referring to the principal of a Bond, payable on the stated maturity date thereof or the date on which the same shall have been duly called for mandatory sinking fund redemption and does not refer to any earlier date on which payment is due by reason of call for redemption (other than by mandatory sinking fund redemption), acceleration or other advancement of maturity unless AGM shall elect, in its sole discretion, to pay such principal due upon such acceleration together with any accrued interest to the date of acceleration and (b) when referring to interest on a Bond, payable on the stated date for payment of interest. "Nonpayment" means, in respect of a Bond, the failure of the Issuer to have provided sufficient funds to the Trustee or, if there is no Trustee, to the Paying Agent for payment in full of all principal and interest that is Due for Payment on such Bond. "Nonpayment" shall also include, in respect of a Bond, any payment of principal or interest that is Due for Payment made to an Owner by or on behalf of the Issuer which has been recovered from such Owner pursuant to the

United States Bankruptcy Code by a trustee in bankruptcy in accordance with a final, nonappealable order of a court having competent jurisdiction. "Notice" means telephonic or telecopied notice, subsequently confirmed in a signed writing, or written notice by registered or certified mail, from an Owner, the Trustee or the Paying Agent to AGM which notice shall specify (a) the person or entity making the claim, (b) the Policy Number, (c) the claimed amount and (d) the date such claimed amount became Due for Payment. "Owner" means, in respect of a Bond, the person or entity who, at the time of Nonpayment, is entitled under the terms of such Bond to payment thereof, except that "Owner" shall not include the Issuer or any person or entity whose direct or indirect obligation constitutes the underlying security for the Bonds.

AGM may appoint a fiscal agent (the "Insurer's Fiscal Agent") for purposes of this Policy by giving written notice to the Trustee and the Paying Agent specifying the name and notice address of the Insurer's Fiscal Agent. From and after the date of receipt of such notice by the Trustee and the Paying Agent, (a) copies of all notices required to be delivered to AGM pursuant to this Policy shall be simultaneously delivered to the Insurer's Fiscal Agent and to AGM and shall not be deemed received until received by both and (b) all payments required to be made by AGM under this Policy may be made directly by AGM or by the Insurer's Fiscal Agent on behalf of AGM. The Insurer's Fiscal Agent is the agent of AGM only and the Insurer's Fiscal Agent shall in no event be liable to any Owner for any act of the Insurer's Fiscal Agent or any failure of AGM to deposit or cause to be deposited sufficient funds to make payments due under this Policy.

To the fullest extent permitted by applicable law, AGM agrees not to assert, and hereby waives, only for the benefit of each Owner, all rights (whether by counterclaim, setoff or otherwise) and defenses (including, without limitation, the defense of fraud), whether acquired by subrogation, assignment or otherwise, to the extent that such rights and defenses may be available to AGM to avoid payment of its obligations under this Policy in accordance with the express provisions of this Policy.

This Policy sets forth in full the undertaking of AGM, and shall not be modified, altered or affected by any other agreement or instrument, including any modification or amendment thereto. Except to the extent expressly modified by an endorsement hereto, (a) any premium paid in respect of this Policy is nonrefundable for any reason whatsoever, including payment, or provision being made for payment, of the Bonds prior to maturity and (b) this Policy may not be canceled or revoked. THIS POLICY IS NOT COVERED BY THE PROPERTY/CASUALTY INSURANCE SECURITY FUND SPECIFIED IN ARTICLE 76 OF THE NEW YORK INSURANCE LAW.

In witness whereof, ASSURED GUARANTY MUNICIPAL CORP. has caused this Policy to be executed on its behalf by its Authorized Officer.

ASSURED GUARANTY MUNICIPAL CORP.

By ______________________________
Authorized Officer

A subsidiary of Assured Guaranty Municipal Holdings Inc.
1633 Broadway, New York, N.Y. 10019
(212) 974-0100

Form 500NY (5/90)

PENNA
TURN
PIKE