Pennsylvania Turnpike Commission
Act 44 Financial Plan
Fiscal Year 2020

May 17, 2019

Submitted to:
Secretary of the Budget,
Commonwealth of Pennsylvania

Submitted by:
Pennsylvania Turnpike Commission

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PFM

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I. Recent Developments

Recent Developments

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 "Lawsuit"). The Trucking Plaintiffs allege that Act 44 of 2007, as amended by Act 89 of 2013 (hereinafter, "Act 44/89"), violates the Commerce Clause and the right to travel under the U.S. Constitution, either facially or as applied.

The Lawsuit does not directly challenge the validity of the Commission's Senior Indenture or its ability to issue bonds for improvement to the System under its Senior Indenture. Essentially, the Trucking Plaintiffs allege that 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 seeks, among other things, the following injunctive remedies: (1) a preliminary injunction (a) requiring the Commission to segregate all toll receipts in excess of what may be required for the current operation and maintenance of the Pennsylvania Turnpike System or for the funding of Commission senior revenue bonds issued under the Amended and Restated Trust Indenture dated as of March 1, 2001, as amended and supplemented, between the Commission and U. S. Bank, National Association, as trustee, and prohibiting the Commission from expending those toll receipts pending ruling on this action, and (b) prohibiting the Commission from authorizing the issuance of any further subordinate revenue bonds under the Subordinate Trust Indenture dated as of April 1, 2008, as amended and supplemented, between the Commission and Wells Fargo Bank, N.A., Philadelphia, Pennsylvania, as trustee, or the incurring of any additional debt for the purpose of making any additional Act 44/89 payments to the Pennsylvania Department of Transportation; (2) 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 (3) 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.

The Commission along with all of the Commonwealth defendants have been vigorously defending Act 44/89 and the propriety of its use of the Turnpike toll revenues in court. On April 4, 2019, Judge Yvette Kane of the United States District Court of 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 Plaintiff's complaint failed to state a claim upon which relief may be granted for violations of the dormant Commerce Clause of 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. 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.

For purposes of the Fiscal 2020 Act 44 Financial Report, the Commission assumes that it will prevail in the Lawsuit and that Act44/89 and Act 44/89 obligations will remain in place.

II. Summary

Summary

An act of the General Assembly of Pennsylvania, approved on July 18, 2007, P.L. 169, No 44 (“Act 44”), as amended by the Act of November 25, 2013, P.L. 794, No. 89 (“Act 89”) established the framework for the Pennsylvania Turnpike Commission’s (“PTC” or the “Commission”) expanded mandate from one focused entirely on constructing, operating and improving the Pennsylvania Turnpike to one that also provides annual funding contributions for broader Commonwealth transportation needs. Since Act 44’s passage through the end of fiscal 2018, the Commission has fully met its obligations by providing a total of $6.10 billion in funding support for Commonwealth transportation needs through payments under a Lease and Funding Agreement (the “Funding Agreement”), dated October 14, 2007 as amended on April 4, 2014, with the Pennsylvania Department of Transportation (“PennDOT”). The Commission has primarily financed its Act 44 commitments to the Commonwealth through the issuance of Subordinate Revenue Bonds and Subordinate Special Revenue Bonds, currently totaling over $6.1 billion.

In response to the Lawsuit, on July 31, 2018, the Commission and PennDOT agreed to an amendment to the Funding Agreement in which Act 44/89 quarterly payments from the Commission to PennDOT during fiscal 2019 could be delayed to the subsequent quarter but in no case beyond June 30, 2019 pending resolution of the Lawsuit. To date the Commission has postponed all four fiscal 2019 quarterly payments. As result of the District Court’s decision on April 4, 2019, the Commission presently anticipates that it will issue new Act 44 Subordinate Revenue bonds and provide full fiscal 2019 payment of $450 million to PennDOT.

Act 89 substantially altered the Commission’s funding obligations to PennDOT. While the Commission’s aggregate payment obligation remains at $450 million annually, beginning July 1, 2014, none of the payments are dedicated to highways and bridges. Instead, all $450 million is allocated to support transit capital, operating, multi-modal and other non-highway programs. The Commission expects to finance most of this obligation with Subordinate Revenue Bond proceeds with at least $30 million annually funded from current revenues. Since the Commission’s Act 44 payments are now dedicated to transit needs, the Commission no longer issues Subordinate Special Revenue Bonds, however, the Commission has the ability to issue refunding bonds on the Subordinate Special Revenue lien for debt service savings. Beginning in fiscal 2023 through 2057, the Commission’s annual obligation is reduced to $50 million, which will be funded by current revenues and dedicated to transit capital and operating needs.

The provisions of Act 44 and the Funding Agreement require that the PTC provide a financial plan to the Secretary of the Budget 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 revenues 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, which are separately financed by certain dedicated tax and fee revenue sources of the Commonwealth.

This report, which was prepared by the PFM Group ("PFM") for the Commission, is submitted in compliance with the financial plan requirements of Act 44 and the Funding Agreement.

After an extended period where the Commission had to manage its obligations within a difficult economic environment, in recent years it has benefitted from a stronger economy and moderate motor fuel prices. Regardless of the economic environment, the Commission fully met its Act 44 obligations, subject to restrictions associated with the Lawsuit, and progressed with its expanded capital plan. Based on actual traffic data through February 2019 and likely reflecting the continuing effects of a strong national economy, CDM Smith is forecasting 1.4% growth in the total number of fiscal 2019 transactions versus the forecast for fiscal 2019 transactions from the prior year. CDM Smith is forecasting that fiscal 2019 transactions will reach a record of over 202.0 million, versus a prior estimate of 199.2 million. If achieved, the Commission will have generated record levels of transactions for five consecutive years despite continually rising toll rates. Systemwide, projected fiscal 2019 passenger car transactions surpassed estimates by 0.9% and projected passenger car toll revenue exceeded estimates by 1.8%. Fiscal 2019 commercial vehicle transactions are expected to exceed estimates by 3.7% and commercial vehicle toll revenue is expected to be 7.9% greater than estimates. When all vehicles are considered, actual fiscal 2019 transactions will be higher than estimates by 1.3% and toll revenue is expected to exceed estimates by 4.4%. Actual total transactions, through April 2019, have increased 2.1% with total passenger transactions growing 1.6% and commercial transactions growing 4.9%. Fiscal 2019 operating expenses are estimated to be on budget at $415.6 million. The Senior Revenue Bond debt service coverage ratio for fiscal 2019 was 3.01x, which was higher than the 2.74x coverage ratio anticipated in the Fiscal 2019 Financial Plan due to higher than anticipated revenues and lower debt service costs. Subordinate Revenue Bond and Subordinate Special Revenue Bond debt service coverage ratios of 1.51x and 1.41x, respectively, were also higher than the Fiscal 2019 Financial Plan.

The Fiscal 2020 Financial Plan reflects the full year effects of the January 2019 toll increase and the partial year impacts of a January 2020 toll increase. It is anticipated that the January 2020 toll adjustment will yield a net increase in toll rates of 6%. Fiscal 2020 operating expenses are projected to increase just under the Commission's financial planning goal by growing at 4.0%, growing at 3.96% or $16.5 million to $432.0 million. From Fiscal 2021 onward, 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 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% ($3.0 million).

The financial plan estimates that PTC is expected to generate the necessary resources to: (i) meet Turnpike operations and maintenance expenses; (ii) pay debt service obligations; (iii) support capital reinvestment of $552.2 million (which is consistent with the proposed ten-year capital plan); and (iv) provide $450 million in contributions required to meet its Act 44 obligations. Fiscal 2020 debt service coverages on the Commission's Senior Revenue Bonds, Subordinate Revenue Bonds and Subordinate Special Revenue Bonds is projected to be 3.11x, 1.54x and 1.43x, respectively and are consistent with the Commission's targeted debt service coverage ratios. Projected fiscal 2020 debt service coverage ratios for Senior Revenue Bonds, Subordinate Revenue Bonds and Subordinate Special Revenue Bonds are improved versus those forecasted in the Fiscal Year 2019 Financial Plan generally due to improved vehicle transaction levels and associated higher toll revenue than what was previously projected.

PTC's mandate under Act 44, as amended by Act 89, means the Commission will continue to have significant financial responsibilities to fund $450 million annually in Commonwealth-wide transit needs through fiscal 2022. Meeting these obligations has required the Commission to: 1) significantly increase its debt levels to finance Act 44 payments; 2) implement a regular schedule of toll increases on the Turnpike; and 3) pursue an aggressive cost containment program to manage expense growth. However, it is important to note that Act 89 provides long-term debt relief to the Commission beginning in fiscal 2023 when its annual Act 44 payment obligations will be reduced to $50 million. This long term relief will eliminate the need to issue Subordinate Revenue Bonds and will allow the Commission to more fully and efficiently focus on its capital needs and to reduce its overall leverage.

While meeting its Act 44 obligations, the Commission has also been progressing with its rolling ten-year capital plan to improve and maintain the Turnpike in a state of good repair, ensure customer safety and convenience and address capacity constraints. Over the fiscal 2020-2029 period, the proposed capital plan calls for $5.9 billion in spending and 1) continues the Commission's efforts for total roadway reconstruction and resurfacing; 2) continues the rehabilitation or replacement of structurally deficient bridges; 3) provides for implementation of Cashless Tolling, and 4) provides for the development and installation of a fiber optic network.

The long-range financial plan reflects the Commission's commitment to operate and maintain its toll facilities, support a Turnpike capital investment program at levels consistent with the adopted ten-year plan spending levels adjusted for inflation, and fully fund its Act 44 obligations. At the same time the financial plan assumes the Commission will maintain debt service coverage ratios of at least 2.0x on annual debt service for its Turnpike Senior Revenue Bonds, 1.30x on combined debt service for its Turnpike Senior Revenue and Subordinate Revenue Bonds and 1.20x for all three of its liens. In addition, a liquidity level equal to at least 10% of operating revenues is assumed to be maintained. These coverage and liquidity targets reflect the Commission's goal to maintain financial flexibility consistent with its credit ratings. To meet these operating, capital and Act 44 obligations and maintain these coverage and liquidity ratios, the financial plan assumes Turnpike traffic and toll rates will increase at levels sufficient to comply with these parameters and that traffic volumes will be consistent with the levels forecasted by the PTC's outside traffic consultant. As part of the Act 44 financial planning process, the Commission will annually review underlying economic conditions and traffic in order to establish toll rates to meet its goals. Further, PTC will continue its efforts to manage operating cost growth to a maximum 4% annual rate through on-going cost containment and efficiency measures.

The PTC will continue to regularly access the capital markets to finance both its own capital needs and meet Act 44 payment obligations, assuming a successful resolution of the Lawsuit in the Commission and commonwealth's favor. Between fiscal 2020 and 2029, the Commission is expected to issue $4.5 billion in debt (including issuance and reserve costs), which reflects approximately $1 billion less in 10-year projected issuance than what was reflected in the Fiscal Year 2019 Financial Plan. Although the Commission expects to bond for both fiscal 2019 and 2020 Act 44 payments in fiscal 2020, decreased bonding in later years results in the lower overall expected issuance. Debt issued to support Turnpike capital needs over the next ten years is projected to be $2.9 billion, while debt issued to support Act 44 payment obligations is expected to be $1.6 billion during this period.

As required by Act 89, the Commission is required to fund at least $30 million in annual Act 44 payments with current revenue through fiscal 2022 and all $50 million in Act 44 payments via cash contributions beginning in fiscal 2023. The Fiscal 2020 Financial Plan assumes that the Commission will continue to fund $50 million in annual Act 44 payments with current revenue. At the same time a portion of current year cash will fund a part of the Turnpike capital needs on a pay-as-you-go basis while maintaining sufficient liquidity in its General Reserve Fund.

Over the course of the fiscal year 2020-2057 financial plan period, PTC debt issuance is expected to total $4.8 billion. Total debt issuance assumed in this year's long-term financial plan includes $3.2 billion for Turnpike capital needs and $1.6 billion to finance Act 44 obligations. Debt service coverage of the Turnpike Senior Revenue Bonds is projected to be at least 2.78x through fiscal 2057, while debt service coverage of Turnpike Subordinate Revenue Bonds and Subordinate Special Revenue Bonds is at least 1.43x and 1.34x, respectively through fiscal 2057.

While PTC's financial plan is based on reasonable financial assumptions, it is important to recognize that there are inherent uncertainties in projecting resources and obligations over a nearly 40 year time period. Downside risks to the financial plan include lower than expected traffic and toll revenues, higher interest and inflation rates and/or greater than projected operating and/or capital cost increases. In the near term, the financial plan accounts for the effects of the economic recovery. To accommodate these risks, the financial plan requires the PTC to maintain strong debt service coverage and preserve internal liquidity. Nevertheless, it is also important to assess how the combination of downside risks may impact the financial plan and to identify remediation measures the Commission could implement to maintain fiscal stability. PTC will monitor its performance relative to the financial plan, and take corrective action if costs are higher and/or toll revenues are less than projected. While such a scenario may call for further adjustments in toll rates, the Commission will explore strategies to contain cost growth or reprioritize capital initiatives to manage the level of toll rate adjustments and maintain fiscal stability.

As the Commission continues to meet its Turnpike and Act 44 financial obligations over the course of fiscal 2020, it will continue its ongoing activities to refine and strengthen its financial plan, including:

- **Updating Traffic and Revenue Forecasts:** PTC updated its Turnpike revenue projections in April 2019 based on its traffic consultants' assessment of recent economic conditions and their expected long term impact on traffic demand. PTC conducts an on-going analysis of its traffic and revenue trends to develop a toll rate setting strategy that balances the need to generate the required revenues to meet Turnpike obligations, as well as Act 44 payments, with the implementation of an equitable toll rate paid by customers that does not cause undue diversions to non-tolled highways. The Commission is also gradually converting the Turnpike's toll collection to a Cashless Tolling system. To date the Commission has undertaken an initial feasibility study, procured the services of a Cashless Tolling program management consultant and completed the Stage 1 Conceptual Design phase. To date, five E-ZPass only interchanges have been constructed and five cashless tolling locations have been converted. As part of the development of the Cashless Tolling option, the Commission will identify Cashless Tolling rate setting and operations strategies that both provide pricing flexibility and protect the generation of toll revenues so that the PTC will continue to meet its Turnpike and Act 44 obligations while maintaining financial flexibility. The Act 44 Financial Plan includes the capital costs for Cashless Tolling implementation as well as some preliminary operating costs associated with Cashless Tolling. However, given that the Cashless Tolling toll setting and operating strategies are in development, the financial plan does not reflect final toll revenue and operating cost impacts associated with a Cashless Tolling strategy. It is also important to note that the Commission is currently implementing Cashless Tolling through a series of individual projects in several locations. The Delaware River Bridge became the first Cashless Tolling location in January 2016 and the Beaver Valley Expressway was converted to Cashless Tolling in April 2017. The Commission also introduced Cashless Tolling at the Keyser Avenue and Clarks Summit interchanges in Lackawanna County in April 2018 and the Findlay Connector in Washington and Allegheny counties in June 2018. Two additional Cashless Tolling locations will be converted in fiscal 2020 as both the Gateway barrier and the Amos K. Hutchinson Bypass will be converted in October 2019.

- **Implementing Operations and Maintenance Cost Strategies:** During the course of the fiscal year, the Commission will continue its efforts to provide recurring savings and operating efficiencies that control operating cost growth.

- **Developing a Comprehensive Capital Plan:** To meet the travel needs of its customers and generate the necessary revenues to meet its obligations, PTC is committed to maintaining and improving its capital assets, and providing sufficient capacity to meet future traffic demand. The Commission has a well-established rolling ten year capital planning effort for the Turnpike. PTC has adopted a $5.9 billion fiscal 2020-2029 ten year capital plan.

- **Undertaking Financing Initiatives:** Using this year's financial plan as a guide, the Commission will evaluate alternative structures that facilitate cost effective financing, meet the PTC's and Commonwealth's transportation needs and preserve fiscal stability.

III. Serving the Commonwealth's Mobility Needs

Serving the Commonwealth's Mobility Needs

The Pennsylvania Turnpike Commission ("PTC" or the "Commission") serves an integral role in meeting Pennsylvania's mobility needs. Since 1940 the Commission has been responsible for the construction, operation and maintenance of the Pennsylvania Turnpike, a system now encompassing 552 route miles (the "Turnpike"). The Turnpike's facilities include the 359 mile east-west Mainline traversing the southern portion of Pennsylvania that connects with the New Jersey Turnpike in the east and the Ohio Turnpike in the west; the 110 mile north-south Northeastern Extension; the 16 mile north-south Beaver Valley Expressway; the 13 mile Amos K. Hutchinson Bypass near the New Stanton Interchange; completed segments of the Mon/Fayette project totaling 48 miles in length; and a six mile segment of the Southern Beltway.

As an instrumentality of the Commonwealth, the Commission's governance structure is composed of members who are responsible to Turnpike customers, elected officials and policy makers. The Commission is governed by five members, including the Secretary of the Pennsylvania Department of Transportation ("PennDOT"). Commission members, excluding the PennDOT Secretary, are appointed by the Governor with the advice and consent of at least two-thirds of the Senate and are appointed for a term of four years. At present, there are no vacancies. The members of the Commission select among themselves the Chair, Vice Chair and Secretary/Treasurer. While the Commission members are responsible for establishing policy and providing oversight, the Chief Executive Officer is responsible for carrying out the Commission's policies and directions and day-to-day management. The Chief Executive Officer is supported by a senior staff consisting of the Chief Operating Officer, Chief Financial Officer, Chief Engineer, Chief Counsel and Chief Compliance Officer. PTC carries out its operations with a staff of 1,909 employees (as of March 1, 2019), which represents a net reduction of 3.0% from the prior year.

By fostering access and facilitating economic development, the PTC has benefited from significant traffic demand since the initial segment of the Turnpike opened in 1940. Reflecting the combination of regular toll increases, economic cycles and the mature travel market that the PTC now serves, traffic demand has remained steady since fiscal 2004. With the full year effect of the January 2018 and partial year impact of the January 2019 toll increases, CDM Smith estimates fiscal 2019 transactions will grow to a record level of 202.1 million while net toll revenues will grow $110.1 million or 9.2%. Through April 2019, actual transaction growth has been 2.1% fiscal year to date and actual net toll revenue growth has been 10.9% fiscal year to date.

Based on fiscal 2018 data, passenger vehicles represent 86% of Turnpike traffic, while commercial vehicles (mostly trucks) comprise the balance. Reflecting the PTC's strategy to charge trucks a toll more commensurate with greater maintenance requirements to accommodate these vehicles, the Commission receives 44% of its toll revenues from commercial vehicles and 56% from passenger vehicles.

To provide and maintain high quality transportation infrastructure for its customers and preserve the Turnpike's economic competitiveness, the PTC continues to implement its planned ten year $5.9 billion capital improvement program that features 1) roadway resurfacing and total reconstruction programs; 2) the rehabilitation or replacement of structurally deficient bridges; 3) the implementation of Cashless Tolling; and 4) provide for the installation of a fiber optic network.

Reflecting the growing acceptance of electronic tolling, electronic toll collection ("ETC") market share increased to 83% of revenues in fiscal 2018 from 59% in fiscal 2008. PTC has also embarked on installing unmanned E-ZPass-only slip ramps to provide greater access and reduce congestion at busier Turnpike interchanges. To date, PTC has installed Express E-ZPass lanes at five interchanges that permit electronic toll-paying customers to travel through the toll plaza at highway speeds.

The combination of a stable travel market, periodic toll increases, capital reinvestment and a good financial management track record have allowed the PTC to maintain a strong financial position. Since fiscal 2010 and through fiscal 2018, debt service coverage of its Senior Revenue Bonds has been at least 3.01x, while, combined Senior, Subordinate and Subordinate Special Revenue debt service coverage has been at least 1.47x. After meeting all Turnpike-related obligations, PTC had an ending General Reserve Fund balance in fiscal 2018 of $345.2 million which exceeded the Commission's liquidity policy, which represented a nearly 47% increase from the fiscal 2015 balance of $235.6 million. The Financial Plan for 2020 assumes the Commission will have a General Reserve Fund balance of nearly $400.0 million on May 31, 2019. It should be noted that projected 2019 General Reserve Fund balance is at least $50.0 million higher than otherwise expected due to the delay in making Act 44/89 payments to PennDOT as result of the Lawsuit. It should be further noted that during fiscal 2019 the Commission utilized a portion of its General Reserve Fund balance to: 1) voluntarily retire variable rate Subordinate Revenue Bonds totaling $50 million on December 1, 2018; 2) voluntarily contribute an additional $30 million to its OPEB Trust Fund; and 3) to voluntarily cash defease a portion of its outstanding Senior Revenue Bonds ($23 million). Nevertheless, as described in detail in the following sections, meeting Act 44's mandates and preserving the PTC's financial flexibility requires prudent and proactive management of toll rates, revenue collection, operating and maintenance expenses, debt issuance and capital investment.

Act 44, Act 89 and PTC's Expanded Mandate

Act 44 (P.L. 169) as amended by Act 89 (P.L. 794) expanded the PTC's mandate from one focused on constructing, operating and improving the Turnpike to one that also includes providing annual funding contributions for broader Commonwealth transportation needs. Commission payment obligations are deposited into the Public Transportation Trust Fund. The PTC's contributions are in addition to certain dedicated taxes and fees received by the fund.

Act 89 substantially changed the allocation and amount of the Commission's payments. Previously the Commission's $450 million funding commitment allocated $200 million for highway and bridge payments and $250 million for transit operating needs. Beginning in fiscal 2015 Act 89 dedicated all of the Commission's payments to transit and multi-modal programs. Total annual payments through fiscal 2022 remain at $450 million and then are reduced to $50 million from fiscal 2023 to fiscal 2057. The Commission and PennDOT executed an Amended Funding Agreement in April 2014 reflecting the new funding provisions. Exhibit 1 provides the allocation of Act44/89 obligations by purpose pursuant to Act 89.

Exhibit 1
Act 44 as Amended by Act 89
Annual Funding Requirements
($ 000s), Fiscal Year End May 31

	Transit			Mult-Modal	Total
	Operating	Capital (*)	Subtotal	Programs	Funding
2018	$25,000	$395,000	$420,000	$30,000	$450,000
2019	$25,000	$395,000	$420,000	$30,000	$450,000
2020	$25,000	$395,000	$420,000	$30,000	$450,000
2021	$25,000	$395,000	$420,000	$30,000	$450,000
2022	$25,000	$395,000	$420,000	$30,000	$450,000
2023-2057	$25,000	$25,000	$50,000	$0	$50,000

(*) Includes funding for Alternative Energy and Projects of Statewide Significance

In fiscal 2019, $395 million in Act 44/89 obligations were dedicated to capital, alternative energy projects and projects of statewide significance. Funding to transit capital remains at $395 million annually through fiscal 2022. Beginning fiscal 2023, transit and other capital payments are capped at $25 million per year. Act 44/89 obligations for transit operations declined annually to $25 million in fiscal 2019 and will remain at that level through fiscal 2057. Starting in fiscal 2015 and continuing until fiscal 2022, $30 million will be allocated to multi-modal programs.

Act 89 requires the Commission to provide at least $30 million in funding from pay-as-you-go resources from fiscal 2015 to fiscal 2022. This amount is dedicated to transit capital expenses. Once the Commission's Act 44 funding commitment drops to $50 million annually starting in fiscal 2023, the Commission is required to provide 100% of this funding on a pay-as-you-go basis. As a result, debt issued to finance the Commission's Act 44 commitments will end in fiscal 2022. The Financial Plan for 2020 assumes that the Commission will provide $50 million in funding from pay-as-you-go resources, versus the $30 million minimum required by Act 89. The increased level of pay-as-you-go Act 44 funding began in fiscal 2017. The increase in current revenue funding will generate a corresponding reduction in the amount of Act 44 debt to be issued through fiscal 2022.

Since the Commission's payment obligations are only devoted to transit and other non-highway purposes, PTC will solely use its Subordinate Revenue Bonds to finance its Act 44 obligations and no longer utilize its Subordinate Special Revenue Bonds. Transit and other non-highway capital payment obligations are assumed to have a shorter useful life than highway and bridge assets. As a result a 30 year term is assumed for all future Subordinate Revenue Bonds. The amount of debt issued will be reduced by the pay-as-you-go requirements of Act 89 as well as any additional available cash flow to fund the Commission's Act 44 commitments.

As described in more detail in subsequent sections of this financial plan, PTC has issued debt on a tax-exempt and to a lesser extent on a taxable basis to finance its Act 44 payment obligations. A key assumption for PTC is that the transit capital portion of each payment to PennDOT will be used primarily for long life capital projects so as to maximize the use of tax-exempt debt.

Act 44, Act 89 and the Funding Agreement, in combination with the PTC's financing structure, provide the Commission with a number of tools to meet its payment obligations. These are summarized below and are more fully described in the following sections of the financial plan.

- **General Reserve Fund:** After meeting Turnpike capital needs and maintaining minimum liquidity requirements together with the Reserve Maintenance Fund equal to at least 10% of that year's total operating revenues, cash from the General Reserve Fund can be used to fund Act 44 payment obligations.

- **Senior Revenue Bonds:** Given PTC's multi-year capital needs and the long useful life of major capital improvements, the Commission debt finances a substantial portion of its capital improvement program. The Senior Revenue Bonds are payable from the net toll revenues of the Turnpike.

- **Subordinate Revenue Bonds:** Since amounts in the General Reserve Fund are not expected to be sufficient to fully fund, on a cash basis, the PTC's Act 44 payment obligations in any given year, the Commission will likely debt finance the majority of these payments through fiscal year 2022. The Subordinate Revenue Bonds are secured by payments from the General Reserve Fund, known as Commission Payments, and are used to finance transit and multi-modal obligations.

IV. Fiscal 2019 Activities

Fiscal 2019 Activities

PTC was prepared to continue to meet its funding commitments in full and on time during the eleventh year of Act 44, providing $450 million to the Commonwealth. However, as noted previously, the Lawsuit has effectively precluded the PTC from accessing the capital markets in order to make its fiscal 2019 Act 44/89 payments to PennDOT. The Fiscal 2020 Financial Plan assumes that the PTC will make its fiscal 2019 and fiscal 2020 payments to PennDOT during fiscal 2020.

As the Commission carries out its Act 44 responsibilities, it also continues its efforts to maintain and improve the Turnpike. It is important to note that the PTC met its obligations within an improving economic environment, and continued to manage its financial commitments through cost containment measures. Credit market conditions continued to largely remain favorable. PTC continues to pursue debt structures to yield the lowest possible costs as evidenced by its selective use of floating rate notes, thirty year fixed rate Senior and Subordinate Revenue bond structures that took advantage of historically low interest rates while maximizing investor demand and undertaking Senior and Subordinate lien refundings that provided significant savings. During fiscal 2016, 2017 and 2018, the Commission refunded nearly $3.3 billion in Senior Revenue, Subordinate Revenue and Special Subordinate Revenue bonds for interest rate savings which total an estimated $594.9 million in savings over the remaining life of the refunding bonds. Total estimated present value savings from these refundings is $393.4 million. Additionally, the PTC has made use of innovative financing options such as the use of EB-5 loans to further reduce its interest costs.

The EB-5 program is also known as the Immigrant Investor Program and is administered by the U.S. Citizenship and Immigration Services. In fiscal 2016, the PTC closed on $200 million of EB-5 loans to fund a portion of its I-95 Interchange project. The EB-5 loans are on parity with the Commission's senior lien bonds. The loans are five-year interest only construction loans with a low interest rate of 2.0%. After the initial five year period, the PTC has the option to enter into a 30 year loan with the Delaware Valley Regional Center ("DVRC") at an interest rate that was locked in at the time of the EB-5 loan closing or to take out the five year loan with a Senior Lien Bond financing. The combined maximum DVRC rate for a future 30 year loan on the $200 million is now set at a maximum rate that averages approximately 3.1%, well below the level that could be achieved through a public offering at this time. If long term interest rates on 30 year publicly offered debt is lower than 3.1%, the Commission retains the option to take out the five year loan with Senior bonds. In August 2016, the Commission executed a loan agreement with DVRC for an additional $800 million in future EB-5 loans. Proceeds of the new EB-5 loans will be used on selected projects on the Turnpike mainline which are included in the 10 year capital plan. In February 2018, the Commission closed on the first $50 million tranche of the additional EB-5 $800 million authorized under the loan agreement and in November 2018, closed on an additional $45 million tranche of EB-5 funding.

Meeting Act 44 and Turnpike funding commitments requires carefully managing financial obligations while maintaining fiscal balance and flexibility. As part of the Act 44 financial planning process, the Commission evaluates alternative tolling, operating cost, capital program and debt financing strategies to meet its obligations in a cost-effective and prudent manner. The ability to continually review and, as appropriate, adjust strategies throughout the term of the Funding Agreement provides the Commission with the necessary flexibility to adapt to changing market conditions.

Exhibit 2

Fiscal 2019 Estimated Turnpike Results Compared to Last Year's Financial Plan

($000) Fiscal Year End 5/31

		2019 Financial Plan			
	Actual 2018	Estimate 2019 Plan	Estimate 2018 Plan	%Diff Actual 2018	% Diff Est. 2018 Plan
<u>Turnpike Operating Income</u>					
Adjusted Gross Toll Revenues	1,196,606	1,306,722	1,184,080	9.2%	10.4%
Gross Non-Toll Revenues	4,668	8,202	3,303	75.7%	148.3%
Gross Operating Revenues	1,201,274	1,314,924	1,187,383	9.5%	10.7%
Operating Expense	373,848	415,553	399,570	11.2%	4.0%
Interest Income	13,808	15,900	12,964	15.2%	22.6%
Net Turnpike Revenues	841,234	915,271	800,777	8.8%	14.3%
Turnpike Senior Revenue Bonds Debt Service	279,042	303,762	278,406	8.9%	9.1%
Net Income Before Capital Expense and General Reserve	562,192	611,508	522,370	8.8%	17.1%
<u>Turnpike Working Capital</u>					
Cash Beginning Balance	262,988	225,050	263,013	-14.4%	-14.4%
Construction Fund Beginning Balance	210,400	203,179	210,400	-3.4%	-3.4%
Newly Sized Senior Bond Proceeds	454,900	345,000	454,900		31.9%
Previously Unused Senior Bond Proceeds Used	210,400	203,179	210,400	-3.4%	-3.4%
Current Senior Bond Proceeds Used	261,803	246,949	267,935		-7.8%
Construction Fund Ending Balance	203,179	129,262	202,551		
Net Income	562,192	611,508	522,370	8.8%	17.1%
Capital Expenditure	548,335	550,128	548,335	0.3%	0.3%
PAYGO	76,132	100,000	70,000	31.4%	42.9%
Additional Cash Payments for OPEB, DSRF, Defeasance	-	53,000			
Federal Fund Reim.	29,426	58,843	29,426	100.0%	
Capital Expenditure Reconciliation	(78,033)	(20,001)	(28,452)		
Liquidity Requirement	120,127	131,492	118,738	9.5%	10.7%
Liquidity Requirement Cashflow Set-aside	6,688	11,365	5,299	69.9%	114.5%
Tax-Exempt Subordinate Bonds Debt Service	245,439	287,461	245,647	17.1%	17.0%
Taxable Subordinate Bonds Debt Service	11,378	17,786	11,450	56.3%	55.3%
Subordinate Special Revenue Bonds Debt Service	37,938	43,175	37,938	13.8%	13.8%
Subordinate and Sub Special Rev DSRF Earnings	5,478	5,336	5,336	-2.6%	0.0%
Net Funds Remaining Before Act 44 Payments	275,050	260,655	292,994	-5.2%	-11.0%
Debt Service Coverage Ratios					
<u>Senior Revenue Bonds</u>					
Pledged Revenues	841,234	915,271	800,777		
Debt Service	279,042	303,762	278,406		
Coverage	3.01 x	3.01 x	2.88 x		
<u>Subordinate Revenue Bonds</u>					
Pledged Revenues	846,182	921,650	806,652		
Debt Service	535,860	609,009	535,504		
Coverage	1.58 x	1.51 x	1.51 x		
<u>Subordinate Special Revenue Bonds</u>					
Pledged Revenues	846,712	922,156	807,173		
Debt Service	573,797	652,185	573,441		
Coverage	1.48 x	1.41 x	1.41 x		

Note: Pledged revenues include net revenues and debt service reserve fund interest earnings attributable to each lien

Turnpike Operations and Capital Program

PTC toll revenues after commercial discounts and electronic toll collection adjustments are estimated to have grown 9.2% in fiscal 2019, to $1.307 billion. The average toll paid per transaction in Fiscal 2019 equaled $6.47. Fiscal 2019 toll revenues are projected to be 4.5% higher than the fiscal 2019 Financial Plan. Total transactions for the entire fiscal year are estimated to grow to 202.1 million. Through April 2019, actual transaction growth has been 2.1% fiscal year to date. Total Turnpike operating revenues, which include toll revenues and other income derived from service plazas and transponder sales, grew an estimated 9.5% to $1.315 billion – 4.8% higher than levels assumed in the Fiscal 2019 Financial Plan. The greater than projected growth in total operating revenues during fiscal 2019 is attributable to greater than projected growth in traffic and in particular, commercial traffic.

Projected operating expenses in Fiscal 2019 were on budget due to a continuation of cost containment measures, offsetting higher SERS and State Police costs. Budgeted operating expense growth year-over-year is estimated to be 4.0% in fiscal 2019. Actual operating expenses for fiscal 2018 were $373.8 million versus a budgeted amount of $399.6 million. Fiscal 2018 actual operating expenses were 2.3% lower than actual operating expenses in fiscal 2017. Actual debt service coverage ratios are estimated to be higher than forecast in the Fiscal 2019 Financial Plan due to greater toll revenues.

Turnpike capital outlays are estimated at $550.1 million for fiscal 2019, which is 0.4% lower than forecasted in the Fiscal 2019 Financial Plan. Major initiatives undertaken include:

- Highway improvements encompass the design and reconstruction of the Turnpike Mainline and addition of a third lane in all reconstruction activities. To date, PTC has completed reconstruction of 140 miles of the Mainline with most of these sections widened to six lanes. Approximately another 11 miles are currently in construction and 82 miles are currently in design.

- Bridge projects are focused on the rehabilitation or replacement of bridges that are classified as structurally deficient. While this measure is an indication of a bridge's structural soundness it does not imply the facility is unsafe.

- Equipment and facilities improvements including repair and replacement of maintenance facilities and redevelopment of service plazas.

- The fleet program includes the purchase of rolling stock to insure adequate maintenance of the roadway system.

- Information technology includes toll collection projects, communication, application development and technical operational needs.

Act 44 Activities

Per a Funding Agreement amendment with PennDOT, Exhibit 3 shows that the Commission delayed its fiscal 2019 Act 44 obligations due to the Lawsuit. Of the $450 million in Act 44 payments that were delayed, $425 million would have been for transit, multi-modal and other non-highway projects and $25 million would have been for transit operating needs. PTC delayed its quarterly payments of $112.5 million until June 30, 2019 per an amendment to the Funding Agreement with PennDOT executed on July 31, 2018.

The Commission's General Reserve Fund ("GRF") ending balance is estimated to be $392.1 million as of May 31, 2019. The General Reserve Fund balance for fiscal 2019 is 12% higher than the amount projected in the Fiscal 2019 Financial Plan. The higher General Reserve Fund balance is due in large part to the delay in the use of $50 million in General Reserve Fund balance to fund a portion of the PTC's 2019 Act 44 payment to PennDOT. It is anticipated that the PTC will use $100 million in GRF balance in fiscal 2020 to make two years' worth of Act 44/89 payments to PennDOT. It is also worth noting that the $392.1 million General Reserve Fund balance is net of: 1) a voluntary retirement of $50 million in variable rate Subordinate debt that was retired at maturity on December 1, 2018; 2) a voluntary additional transfer of $30 million to the Commission's OPEB Trust Fund; and 3) a voluntary cash defeasance of $23 million in outstanding Senior bonds. It is important to note that the General Reserve Fund balance is estimated to have nearly doubled from fiscal 2014 levels and the General Reserve Fund balance significantly exceeds the amount required under the Commission's policy. The General Reserve Fund is a source of funds for Act 44 payments and the capital plan. Consequently, the balance is expected to moderate over the medium term.

Exhibit 3

Fiscal 2019 Estimated Act 44 Payments Compared to Last Year's Financial Plan

($000) Fiscal Year End 5/31

		2019 Financial Plan			
	Actual 2018	Estimate 2019 Plan	Estimate 2018 Plan	%Diff Actual 2018	% Diff Est. 2018 Plan
Act 44 Payment Funds					
Turnpike Net Income Before Act 44 Payments	275,050	260,655	292,994	-5.2%	-11.0%
Tax-Exempt Subordinate Bond Proceeds	400,000	-	400,000	-100.0%	-100.0%
Taxable Subordinate Bond Proceeds	-	-	-		
Subordinate Special Revenue Bond Proceeds	-	-	-		
Act 44 Payments					
Roads & Bridges Payments	-	-	-		
Roads & Bridges Total Sources	-	-	-		
Tax-Exempt Subordinate Bond Proceeds	-	-	-		
Subordinate Special Revenue Bond Proceeds	-	-	-		
Transit Capital Payments	425,000	-	425,000	-100.0%	-100.0%
Transit Capital Total Sources	425,000	-	425,000	-100.0%	-100.0%
Turnpike Cash	25,000	-	30,000	-100.0%	
Tax-Exempt Subordinate Bond Proceeds	400,000	-	395,000	-100.0%	-100.0%
Transit Operations Payments	25,000	-	25,000	-100.0%	-100.0%
Transit Operations Total Sources	25,000	-	25,000	-100.0%	-100.0%
Turnpike Cash	25,000	-	20,000		
Tax-Exempt Subordinate Bond Proceeds	-	-	5,000		-100.0%
Taxable Subordinate Bond Proceeds	-	-	0.0%		
Total Act 44 Payments	450,000	-	450,000	-100.0%	-100.0%
Total Act 44 Sources	450,000	-	450,000	-100.0%	-100.0%
Remaining Turnpike Cash	225,050	260,655	242,994	15.8%	7.3%
General Reserve Fund/Liquidity Requirement	345,177	392,147	361,732	13.6%	8.4%

Planning Activities

CDM Smith, PTC's traffic and revenue consultant, developed a full investment grade traffic and revenue forecast for the Turnpike in April 2018 to account for the annual toll increases implemented between 2009 and 2018, planned additional increases and projected economic conditions. The full investment grade forecast was updated in April 2019, via a "Bringdown Letter" to reflect actual traffic and toll revenue data through February 2019. On-going cost containment measures have allowed the Commission to cap annual expense growth generally around the 4% target. As the Commission is progressing with its $5.9 billion proposed ten-year Turnpike capital plan, the PTC continues to examine strategies to reduce project costs, take advantage of favorable construction bidding conditions and prioritize initiatives so that the most critical projects are pursued in the near term to further ensure that the System remains in a state of good repair.

Challenges

While PTC has achieved a number of important accomplishments since the passage of Act 44, the Commission is facing a number of challenges as it undertakes its responsibilities. Specifically, these challenges center on managing increasing obligations while maintaining financial flexibility and navigating various economic and interest rate cycles.

Managing Increasing Obligations

PTC's expanded mandate under Act 44 means the Commission has taken on greater financial responsibilities to help fund the Commonwealth's highway, bridge and transit needs. To date, the Commission has primarily met its Act 44 obligations through the issuance of Subordinate and Subordinate Special Revenue Bonds with over $6.02 billion currently outstanding. As noted earlier, Act 89 provides the Commission with significant long term debt relief, but still requires substantial funding commitments through fiscal 2022 that will largely be financed with Subordinate Revenue Bonds. The PTC also has a well-established track record of executing large capital initiatives while maintaining financial flexibility.

During fiscal 2018, the Commission began utilizing bond ratings from Kroll Bond Rating Agency ("Kroll") which assigned ratings of 'AA-' and 'A+' with Stable Outlooks on the Commission's Senior Revenue and Subordinate Revenue Bonds respectively. Moody's and Fitch affirmed their 'A1'and 'A+' ratings on the Senior Revenue Bonds and 'A3'and 'A-' ratings on the Subordinate Revenue Bonds in fiscal 2018 both with a Stable Outlook. In October of 2015, Standard and Poor's ("S&P") which had previously rated the senior lien an 'A+' and the subordinate lien an 'A-', lowered the Commission's Senior Revenue Bond rating to 'A'. The rating change was a technical change caused by the application of revised S&P's criteria and not due to any underlying credit concerns about the Commission or the senior lien credit. S&P affirmed its 'A-' long term rating on the Subordinate Revenue Bonds. Since October 2015, the senior and subordinate bond issuances of the Commission have been sold with just the Moody's and Fitch ratings and there has been no observable effect on the pricing of the Commission's bonds. On March 1, 2017, S&P affirmed its 'A' and 'A-' ratings on the senior and subordinate liens respectively. S&P revised its criteria on March 12, 2018 and as a result, on June 5, 2018, S&P raised its long-term underlying ratings on the Commission's senior-lien turnpike revenue bonds and subordinate revenue bonds outstanding to "A+" and "A", respectively. The ratings on the Senior and Subordinate Bonds by Moody's and Fitch consider the strength of the travel market served by the Turnpike, its well managed financial operations, and strong debt service coverage. Key credit concerns center on the Commission's Act 44 and ten-year capital plan obligations, growing debt and potential for declining debt service coverage. In response to some of these credit concerns, Act 89 provided long term debt relief to the Commission by reducing Act 44 obligations from $450 million a year to $50 million a year.

Moody's rates the Commission's Subordinate Special Revenue Bonds 'A2' while Fitch rates the bonds 'AA-'. Both Moody's and Fitch maintain a Stable Outlook on the Subordinate Special Revenue Bonds.

Beginning in fiscal 2018, Kroll assigned a rating of 'AA-' with a Stable Outlook to the Subordinate Special Revenue Bonds.

To meet the challenges of managing increasing financial obligations, the PTC has a financial planning process to track toll revenues and develop financing strategies to meet the Commission's ongoing Turnpike and Act 44 obligations while maintaining sufficient fund balances that provide internal liquidity to meet unexpected short term needs. As part of this effort, PTC projects and refines Turnpike capital and operating needs and cost efficiency measures to ensure its toll facility is functioning in a state of good repair in the most cost-effective manner possible. This financial plan represents the PTC's eleventh annual report of this effort. During the course of the year, PTC will track its performance relative to the financial plan. As needed, PTC will adjust its operations to meet the financial plan's objectives. In the event of unforeseen circumstances that hinder the Commission's ability to comply with its Act 44 commitments, PTC may need to adjust the assumptions of the financial plan and will provide the revised plan to the Secretary of the Budget. In addition, as required by Act 44 and reflecting good financial planning practices, the PTC will update its financial plan each year as part of its June 1 submission to the Secretary of the Budget, identifying how actual results varied from plan assumptions and identifying necessary revisions and updates based on the prior year outcomes.

V. Strategies, Policies and Covenants to Maintain Financial Flexibility

Strategies, Policies and Covenants to Maintain Financial Flexibility

The Commission has established strategies to meet its Turnpike and Act 44 obligations in a financially prudent manner. PTC carries out these strategies in accordance with the provisions of Act 44, under the covenants it has entered into with bondholders in the Commission's trust indentures, and through the internal financial management policies it has adopted.

Covenants with Bondholders

PTC's Senior Revenue Bond and Subordinate Revenue Bond indentures feature covenants to bondholders that are based on the need to preserve the Commission's financial flexibility and to provide investors with sufficient security. Key covenants include the pledge of revenues, flow of funds, rate covenant, additional bonds test and maintenance of reserves.

Pledge of Revenues

PTC toll and other operating revenues are first used to pay Turnpike operating and maintenance expenses. This is the typical approach used in toll road financing where both the toll road operator and its investors want to ensure there are sufficient revenues to meet ongoing operating needs so that it can generate the necessary resources to cover debt service and other obligations. Debt service on the PTC's Senior Revenue Bonds is secured by toll and other operating revenues after payment of operations and maintenance expenses, i.e. net revenues. Subordinate Revenue Bond investors are paid after the Senior Revenue Bonds, while Subordinate Special Revenue Bonds are secured on a junior basis to the Subordinate Revenue Bonds, but benefit from a back-up pledge of the Commonwealth Motor License Fund. The Commission established this subordinate payment structure to ensure sufficient revenues are available first to meet the needs of the Turnpike's debt service, capital reinvestment and reserve needs before payments to PennDOT are made.

Flow of Funds

All revenues of the Commission are deposited daily into its Revenue Fund. On or before the last business day of the month, an amount equal to the following month's operating and maintenance expenses is transferred into the Operating Account. After meeting the Operating Account requirement, the Commission transfers an amount equal to that month's accrued interest and principal requirement into the Senior Revenue Bonds Debt Service Fund. Remaining amounts are paid into the Reserve Maintenance Fund equal to the amount required for the following month defined in the Commission's annual capital budget, into the Senior Revenue Bond Debt Service Reserve Fund to restore a deficiency, if any, within 18 months, with the remaining surplus deposited into the General Reserve Fund. Balances in the General Reserve Fund are available to pay PTC subordinate debt, optionally redeem bonds, fund capital improvements or be applied for any other authorized Commission purposes.

Amounts on deposit in the General Reserve Fund are first applied toward payments to meet administrative expenses. Each month an amount equal to 115% of one-sixth of the next interest payment and one-twelfth of the next principal payment is paid into the Debt Service Fund for the Subordinate Revenue Bonds. After meeting this requirement the Subordinate Indenture requires an amount equal to one-sixth of the next interest payment and one-twelfth of the next principal payment be paid into the Subordinate Special Revenue Bond Debt Service Fund. Funds are then deposited to make up any deficiencies in the debt service reserve funds for the Subordinate Bonds, the Special Revenue Bonds Funded Debt Service Sub Account, or to repay PennDOT for any draws on the Motor License Fund. The remainder is deposited into the Residual Fund which may be used for any authorized Commission purposes.

Rate Covenant

PTC has covenanted with bondholders to set tolls so that pledged revenues cover debt service by at least the following amounts:

- Net revenues cover the greater of 1.30x Senior Revenue Bond debt service or 1.00x the sum of Senior Revenue Bond maximum annual debt service, deposits into the Reserve Maintenance Fund and amounts necessary, if required, to restore a deficiency in the Debt Service Reserve Fund. In addition, net revenues must be sufficient to cover any short term indebtedness outstanding for 365 consecutive days.

- Commission payments out of the General Reserve Fund are required to be at least 1.15x annual debt service on Subordinate Revenue Bonds, 1.00x annual debt service on the Subordinate Special Revenue Bonds and amounts, if required, to restore a deficiency in the Subordinate Debt Service Reserve Fund.

While the rate covenant provides an important level of protection to bondholders, the PTC has typically maintained much higher coverage levels than the legal threshold--in excess of 2.0x on its Senior Revenue Bonds, 1.30x on combined Senior and Subordinate Revenue Bond debt service and 1.20x on debt service across all three liens. This commitment and established track record of maintaining strong debt service coverage is a key factor that drives the Commission's ratings. It also provides the PTC greater financial flexibility in the event it needs to deal with unexpected financial circumstances. While the Commission would be complying with its commitment to bondholders if it allowed its debt service coverage ratios to decline to the minimum rate covenant requirements, such coverage levels would likely result in a downgrade of the PTC's debt, increasing its borrowing costs and limiting its financial flexibility.

Additional Bonds Test

To manage leverage, the Commission has established the following debt service coverage tests for incurring additional indebtedness:

- Issuance of additional Senior Revenue Bonds requires that the maximum annual debt service coverage was at least 1.75x for prior fiscal year net revenues or debt service coverage was at least

1.30x maximum annual debt service including the proposed issuance, and that projected debt service coverage for the two fiscal years following the end of capitalized interest is at least 1.30x.

- Debt service coverage provided by Commission Payments for the prior fiscal year was at least 1.15x Subordinate Revenue Bond debt service and 1.00x Subordinate Special Revenue Bond debt service or projected debt service coverage for the next two fiscal years is at least equal to 1.10x on combined Subordinate Revenue Bond and Subordinate Special Revenue Bond debt service. In addition, Act 44 and the Funding Agreement include further limits on Subordinate Special Revenue Bonds where no more than $5 billion may be issued in total, with no more than $600 million issued annually. With the passage of Act 89, the Commission no longer issues Subordinate Special Revenue Bonds to finance Act 44 commitments.

Reserve Funds

PTC has the option to provide added protection to bondholders by offering a debt service reserve fund which provides liquidity in the event of unforeseen short term circumstances that result in lower than expected revenues or higher than expected expenses that could adversely impact the Commission's ability pay its debt service obligations. Variable rate Senior Revenue Bonds and Subordinate Revenue Bonds are not secured by a debt service reserve fund. Senior Revenue Bonds debt service reserve funds are funded at maximum annual debt service. The Subordinate Revenue Bonds debt service reserve fund requirement is based upon a standard test to satisfy Internal Revenue Service arbitrage requirements equal to the lesser of 10% of proceeds, maximum annual debt service or 125% of average annual debt service. Additionally, the Subordinate Special Revenue Bonds are secured by a Debt Service Sub-Account equal to one half maximum annual debt service. Given the strong coverage levels the Commission has achieved and plans to maintain, there is a low likelihood that such funds would be drawn upon.

Operations, Maintenance and Capital Improvements

The Commission commits to an inspection of the Turnpike every three years by an independent engineering consultant to determine whether it is maintained in a state of good repair and to make recommendations for revisions or additions to the Commission's capital improvement program. On or before May 31st of each year the Commission will adopt an annual operating budget. Prior to adopting the budget, the Commission will provide it to a consulting engineer to provide comments on the proposed budget. At the same time the Commission adopts its annual budget, it will also approve a capital budget that establishes its capital improvement program for the next ten years. Similar to the operating budget, the capital budget is provided to the consulting engineer for review and comment. The Commission has adopted its fiscal 2020 operating budget and its ten year capital budget for fiscal 2020-29.

Financial Management Policies

PTC has established financial management policies that guide the Commission's prudent use of debt and derivatives to mitigate risk, and to ensure the maintenance of adequate fund balances and proper investment of available funds. The following summarizes the Commission's financial management policies, while the Appendix contains a copy of each policy.

Debt Policy

The purpose of the Commission's debt policy is (i) to establish sound, prudent and appropriate parameters; (ii) to provide guidance governing the issuance, management, continuing evaluation of and reporting on all debt obligations issued by the PTC; and (iii) to take the steps necessary to assure compliance and conformity with this policy. The Commission recognizes the importance and value of the continued creditworthiness and marketability of its bonds, and this policy is intended to ensure that any and all potential debt structures comply with all applicable laws and regulations, as well as sound financial principles.

In an effort to maximize capital funding availability, the Commission has utilized a reasonable mix of borrowing and pay-as-you-go funding, and intends to do so in the future. The Commission does not fund Turnpike current operations or normal maintenance from the proceeds of long-term borrowing.

The Commission seeks to attain bond ratings so borrowing costs are minimized and access to credit is preserved. The Commission understands the importance of demonstrating to rating agencies, investors, investment bankers, creditors and users of the Turnpike that it is following a prescribed financial plan and adhering to sound financial policy. The Commission follows a practice of full disclosure by regularly communicating with bond rating agencies and the Municipal Securities Rulemaking Board's EMMA system to inform them of the Commission's current financial condition and future financial outlook. The Commission has adopted both a Continuing Disclosure Policy and a Post Issuance Compliance Policy and also maintains an investor relations page on its website where it posts disclosure information (see https://www.paturnpike.com/business/investor_relations.aspx).

Swap Policy

The Swap Policy establishes guidelines for the use and management of all interest rate management agreements, including interest rate swaps, swap options, caps, collars and floors (collectively "Swaps" or "Agreements") incurred in connection with the issuance of debt. The Commission revised its swap policy in fiscal 2013 to reflect certain requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 regarding policies and procedures governing the Commission's interaction with swap dealers and to update the polices based on current trends in the management of derivatives.

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 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.

Prior to the execution of any Swap transaction, the Chief Financial Officer, the Assistant Chief Financial Officer for Financial Management, the Commission's Swap Advisor and legal counsel are required to evaluate the proposed transaction based on an assessment of potential benefits and risks defined in the

Swap Policy. As part of its review of a proposed Swap agreement, the Commission will evaluate prevailing market practices and requirements, legal requirements and potential impacts on the PTC's management if its Swaps. Swaps are required to include financial terms and conditions that are fair and reasonable to be evidenced in a letter from a qualified independent Swap Advisor. The Commission will use terms and conditions defined in the International Swap and Derivatives Association, Inc. ("ISDA") Master Agreement and may use the ISDA August 2012 Dodd-Frank Protocol or other such documentation deemed necessary to meet market requirements related to swap provisions of the Dodd-Frank Act. The Assistant Chief Financial Officer for Financial Management in consultation with the Swap Advisor and legal counsel will evaluate the risks of the Commission's outstanding Swaps annually and provide a report of the findings to the Senior Executives.

Liquidity Standard Policy

The purpose of this policy is to ensure that the PTC will maintain minimum annual year-end fund balances for the ongoing level of uncommitted reserves necessary for the Commission to secure and protect its long-term debt. Pursuant to the policy, the PTC will budget and maintain a cumulative fund balance, including cash balances in the Reserve Maintenance Fund and the General Reserve Fund, equal to the greater of either the maximum annual debt service on all bonds not secured by a Debt Service Reserve Fund or 10% of annual budgeted revenues.

Investment Policy and Guidelines

PTC's Investment Policy and Guidelines govern the Commission's investment of cash assets and the Investment Policy and Guidelines were updated in February 2019. Investment objectives are centered on the safety and preservation of invested funds, maintenance of adequate liquidity to meet Commission cash flow requirements, maximizing the total rate of return and providing preference to Pennsylvania investments when the return on investment is no less than a non-Pennsylvania investment. The policy defines eligible securities and requirements for diversification of investments to provide for safety and preservation of funds.

All investments are made with judgment and care, not for speculation, considering the probable safety of capital as well as the probable income to be derived. At the time of purchase, the maturity of each security in the portfolio may not exceed five years and portfolio managers shall adhere to a semi-active portfolio management strategy.

All investment ratings shall be based on the security ratings at the time of purchase. In the event of a rating downgrade, the portfolio manager is to discuss such downgrade with the Chief Financial Officer with a recommendation on whether to sell or hold. The portfolio's average credit quality should be rated Aa3/AA- or better by Moody's and Standard and Poor's, respectively. Portfolio performance is reported each quarter. The quarterly reports describe investment performance, conformity with the policy, status of the portfolio and transactions made over the reporting period.

VI. Fiscal 2020 Financial Plan

Fiscal 2020 Financial Plan

PTC's fiscal 2020 financial plan defines the reasonably expected revenues the Commission will generate necessary to meet required Turnpike operating and maintenance expenses, debt service payments, capital expenses, Act 44 payment obligations and liquidity requirements. Exhibits 4 and 5 show the Commission's financial plan for the ensuing fiscal year.

Exhibit 4

Projected Fiscal 2020 Financial Plan

($000) Fiscal Year End 5/31

	2019	2020
Turnpike Operating Income		
Adjusted Gross Toll Revenues	1,306,722	1,390,057
Gross Non-Toll Revenues	8,202	3,369
Gross Operating Revenues	1,314,924	1,393,426
Operating Expense	415,553	432,021
Interest Income	15,900	15,980
Net Turnpike Revenues	915,271	977,384
Turnpike Senior Revenue Bonds Debt Service	303,762	314,729
Net Income Before Capital Expense and General Reserve	611,508	662,656
Turnpike Working Capital		
Cash Beginning Balance	225,050	260,655
Construction Fund Beginning Balance	203,179	129,262
Newly Sized Senior Bond Proceeds	345,000	257,283
Previously Unused Senior Bond Proceeds Used	203,179	129,262
Current Senior Bond Proceeds Used	246,949	257,283
Construction Fund Ending Balance	129,262	-
Net Earnings	611,508	662,656
Capital Expenditure	550,128	552,207
PAYGO	100,000	165,662
Additional Cash Payments for OPEB, DSRF, Defeasance	53,000	72,970
Federal Fund Reim.	58,843	15,600
Capital Expenditure Reconciliation	(20,001)	-
Liquidity Requirement	131,492	139,343
Liquidity Requirement Cashflow Set-aside	11,365	7,850
Tax-Exempt Subordinate Bonds Debt Service	287,461	308,225
Taxable Subordinate Bonds Debt Service	17,786	17,749
Subordinate Special Revenue Bonds Debt Service	43,175	45,529
Subordinate and Sub Special Rev DSRF Earnings	5,703	5,703
Net Funds Remaining Before Act 44 Payments	260,655	312,209
Debt Service Coverage Ratios		
Senior Revenue Bonds		
Pledged Revenues	915,271	977,384
Debt Service	303,762	314,729
Coverage	3.01 x	3.11 x
Subordinate Revenue Bonds		
Pledged Revenues	921,650	983,763
Debt Service	609,009	640,703
Coverage	1.51 x	1.54 x
Subordinate Special Revenue Bonds		
Pledged Revenues	922,156	984,269
Debt Service	652,185	686,232
Coverage	1.41 x	1.43 x

Note: Pledged revenues include net revenues and debt service reserve fund interest earnings attributable to each lien

Exhibit 5
Projected Fiscal 2020 Financial Plan
($000) Fiscal Year End 5/31

	2019	2020
Act 44 Payment Funds		
Turnpike Net Income Before Act 44 Payments	260,655	312,209
Tax-Exempt Subordinate Bond Proceeds	-	800,000
Taxable Subordinate Bond Proceeds	-	-
Subordinate Special Revenue Bond Proceeds	-	-
Act 44 Payments		
Transit Capital Payments	-	850,000
Transit Capital Total Sources	-	850,000
Turnpike Cash	-	50,000
Tax-Exempt Subordinate Bond Proceeds	-	800,000
Transit Operations Payments	-	50,000
Transit Operations Total Sources	-	50,000
Turnpike Cash	-	50,000
Tax-Exempt Subordinate Bond Proceeds	-	-
Taxable Subordinate Bond Proceeds	-	-
Total Act 44 Payments	-	900,000
Total Act 44 Sources	-	900,000
Remaining Turnpike Cash	260,655	212,209
General Reserve Fund/Liquidity Requirement	392,147	351,552

The fiscal 2020 financial plan was developed based on the following assumptions.

Estimated Toll Rates, Tolls and Other Revenues

Fiscal 2020 toll revenues reflect the full year impact of the toll increase implemented in January 2019 and a partial year impact of a planned adjustment yielding an average toll rate increase of 6% scheduled for January 2020. Toll revenues are projected to increase by 6.4% to $1.39 billion in fiscal 2020, consistent with the CDM Smith April 2018 Traffic and Revenue Forecast, as supplemented by the 2019 Bringdown Letter. Other PTC revenues, primarily consisting of concession income, transponder fees and bad debt expense, are projected to decrease by 59% to $3.4 million. The decrease in projected fiscal 2020 Other PTC revenues is generally due to growing bad debt expense in fiscal 2020. As a result, total operating revenues are projected to grow by 6.0% in fiscal 2020 to $1.39 billion. Interest income is projected to be $22.9 million, which includes interest earned on the General Reserve Fund and the Senior, Subordinate and Subordinate

Special Revenue debt service reserve funds. Reflecting CDM Smith's assumptions, fiscal 2020 toll revenues are projected to be 4.6% higher than the levels assumed in the Fiscal 2019 Financial Plan.

Operating, Capital and Other Expenditures

The Commission's operating expenses are budgeted to increase by 3.96% compared to fiscal 2019. PTC has budgeted operating and maintenance expenses of $432.0 million for fiscal 2020. Operating expense growth of 4.0% or below is consistent with the Commission's stated goal of limiting the growth in annual operating expenses to no more than 4.0%. Achievement of policy level operating growth is a result of aggressive cost containment efforts of the Commission for expenses under its direct control. As stated previously, the Commission's pension expense related to SERS, for employee pension expenses, is projected to grow by 8.4% in fiscal 2020. The Commission's required contribution to the Pennsylvania State Police is projected to grow by 5.7% in fiscal 2020. For all remaining operating expenses under the control of the Commission, growth is projected to be 2.9% on a year-over-year basis. Capital expenditures are budgeted to be $552.2 million – 4.7% lower than the fiscal 2020 estimate developed for the Fiscal 2019 Financial Plan.

Senior Revenue Bond debt service payments on the Commission's bonds for fiscal 2020 are projected to be $314.7 million. Combined Subordinate Revenue Bond and Subordinate Special Revenue Bond debt service is estimated to equal $371.5 million. Compared to the fiscal 2020 estimate shown in the Fiscal 2019 Financial Plan total debt service costs for all three liens is expected to be 8.5% lower than previously projected, due in part to lower than expected debt service costs and a delay in issuance of Subordinate Revenue Bonds during fiscal 2019, as a result of the Lawsuit.

It should be mentioned that budgeted debt service does not include payments on $1.06 billion in separately secured Oil Company Franchise Tax Revenue Bonds and $368.9 million in separately secured Registration Fee Revenue Bonds outstanding as of May 31, 2019 issued to finance the costs of the Mon/Fayette and Southern Beltway projects. Principal and interest on these bonds are not paid by the PTC's toll revenues and are only obligations of the taxes and fees allocated by the Commonwealth to pay debt service on these bonds. Similarly, the capital needs for the Mon/Fayette and Southern Beltway, which are assumed to be funded with non-Turnpike sources, are not reflected in the financial plan.

Outside of the PTC's capital initiatives, Act 44 commitments represent the Commission's largest obligation for fiscal 2020. Pursuant to Act 44, Act 89 and the Funding Agreement and assuming resolution of the Lawsuit, the PTC will provide a total of $900 million in funding, consisting of $850 million for transit and multi-modal capital needs and $50 million for transit operating support in fiscal 2020 which will represent two years of Act 44 commitments.

Planned Borrowings

To meet its fiscal 2020 capital expenditures, PTC expects to utilize $129.3 million of previously unused Senior Revenue Bond proceeds and federal funds reimbursements as well as to issue $257.3 million in additional Senior Revenue Bonds. Fiscal 2019 and fiscal 2020 Act 44 obligations are expected to be funded by $100 million in available cash from the General Reserve Fund and the issuance of $800 million in

Subordinate Revenue Bonds for the fiscal 2019 Act 44 payments and the July 2019, October 2019, January 2020 and April 2020 Act 44 payments. Depending upon market conditions, PTC may refund additional outstanding debt for savings.

As part of the structuring of these bonds, PFM assumed Senior Revenue Bonds to be current interest, fixed rate bonds with a 30 year term and structured with level debt service for Senior Revenue Bonds. These assumptions are more conservative than those utilized in prior financial plans for Senior Revenue Bonds in which the previously assumed debt structures included a mix of current interest bonds and capital appreciation bonds, 40 year terms and escalating debt service assumptions. The Subordinate Revenue Bonds reflect current interest bonds and capital appreciation bonds with 30 year terms and escalating debt service in order to maintain desired debt service coverage levels, conserve debt capacity and facilitate market acceptance for the Commission's securities. The following interest rates are assumed:

- Senior Revenue Bonds have an interest rate equal to the ten year average of the 'AAA' MMD Index plus 80 basis points for current interest bonds.
- Subordinate Revenue Bonds have an interest rate equal to the ten year average of the 'AAA' MMD Index plus 115 basis points for current interest bonds and 190 basis points for capital appreciation bonds.

Based on the above assumptions for revenues, operations and maintenance expense and debt service, fiscal 2020 debt service coverage of the Commission's Senior Revenue Bonds is expected to be 3.11x, 1.54x on the Subordinate Revenue Bonds and 1.43x on the Subordinate Special Revenue bonds. It is worth noting that the projected year-over-year rise in debt service coverage ratios is the first such rising projection since at least 2015.

General Reserve Fund Requirements and Balance

In compliance with PTC's Liquidity Standard Policy, the financial plan assumes that Commission retains a liquidity balance equal to at least 10% of annual budgeted revenues. Even after applying $100 million in available funds towards its Act 44 payments, PTC expects to exceed this requirement with an estimated ending balance for fiscal 2020 of $392.1 million, which includes an $139.3 million liquidity level set aside in the General Reserve Fund.

VII. Long-Range Financial Plan

Long-Range Financial Plan

In addition to the fiscal 2020 financial plan, PTC has prepared a multi-year plan to meet Act 44 and Amended Funding Agreement requirements such that the financial plan shall demonstrate that the operation of the Commission in accordance therewith can reasonably be anticipated to result in the Commission having funds during the ensuing future fiscal years to make the payments due to the Department after all other obligations of the Commission have been met. This section defines the assumptions and results of the PTC's Act 44 long-range financial plan to identify how the Commission can meet annual Turnpike and Act 44 obligations during the course of the Funding Agreement, through fiscal 2057. Given the inherent uncertainties associated with long-range financial projections, the Commission recognizes the inevitability of needing to make substantial modifications to the financial plan over the course of the next four decades. Nevertheless, the Commission has developed a set of assumptions based on today's conditions that it believes are a reasonable basis for preparing a long-range financial plan, as required under Act 44.

PTC's multi-year financial plan reflects several key factors:

- The Commission's assumptions and expectations reflecting the long-term traffic and revenue performance of the Turnpike.
- The Commission's goals to contain operating and maintenance expense growth.
- The Turnpike's capital needs under its near to medium term proposed ten-year capital plan and a sustained level of spending thereafter adjusted for inflation.
- Required base payments under Act 44 of $450 million annually through fiscal 2022 and $50 million annually thereafter.
- The mix of debt and pay-as-you-go financing to meet Turnpike and Act 44 needs and maintenance of required liquidity levels.

Toll Revenues

The long range financial plan reflects the Commission's commitment to operate and maintain its toll facilities, support a Turnpike capital investment program at levels consistent with the adopted ten year plan and spending levels adjusted for inflation, and fully fund its Act 44 obligations. At the same time the financial plan assumes the Commission will maintain debt service coverage ratios of at least 2.0x on annual debt service for its Turnpike Senior Revenue Bonds, 1.30x on combined debt service for its Turnpike Senior Revenue and Subordinate Revenue Bonds and 1.20x coverage across all three liens including the Senior, Subordinate and Subordinate Special Revenue Bonds. In addition, a liquidity level at least equal to 10% of operating revenues is assumed to be maintained for the Turnpike.

These coverage and liquidity targets reflect the Commission's goal to maintain financial flexibility consistent with its credit ratings. To meet these operating, capital and Act 44 obligations and maintain these coverage and liquidity ratios, the financial plan assumes Turnpike traffic and toll rates will increase at levels sufficient to comply with these parameters. As part of the Act 44 financial planning process, the

Commission will annually review underlying economic conditions and traffic in order to establish toll rates to meet its goals.

Operations and Maintenance Expenses

Projected operating expenses are based on PTC's goal to contain annual operations and maintenance cost growth to 4% annually. In addition to operating the Turnpike, these expenses include pension contributions as required by the State Employees Retirement System and funding OPEB obligations.

Capital Expenses

The financial plan assumes the completion of the Turnpike's proposed $5.9 billion ten year capital plan by fiscal 2029. It is important to note that the Commission will need to continue to carefully balance the Turnpike's capital needs with its Act 44 commitments over the course of the financial plan period.

Although the PTC is undertaking a significant investment to rebuild and rehabilitate Turnpike capital assets over the next ten years, there will be on-going capital needs to maintain the facility in a state of good repair. *After the completion of the ten year capital plan, the financial plan assumes a sustained level of capital investment comparable to the ten-year program.* In fiscal 2030 Turnpike capital expenditures equal $641.7 million, a 4.0% increase over the prior year. Thereafter, capital expenses grow by 4% annually throughout the term of financial plan. This strategy is generally consistent with last year's financial plan.

Act 44 Payment Obligations

PTC will meet its Act 44 payment obligations of $450 million annually through fiscal 2022 and $50 million annually thereafter.

Financing Guidelines

The following guidelines were used to develop the financing strategy for the financial plan:

- Turnpike financial obligations are accounted for separately to clearly define the flow of Turnpike resources to Turnpike operating expenses, capital expenses, debt service and Act 44 payment obligations.

- Senior Revenue Bonds secured by the net revenues of the Turnpike finance Turnpike capital improvements. Senior Revenue Bonds are assumed to fund approximately 20-70% of each year's Turnpike capital outlays from fiscal 2020 to fiscal 2029. This level of debt financing is assumed in order to utilize surplus cash flow and reduce debt levels and represents a significant positive revision to the debt assumptions initiated in the prior year financial plan. It is also important to note that the amount of debt to finance Turnpike capital needs is substantially reduced in later years, as surplus cash flow increases as a result of declining Act 44 obligations.

- The Senior Revenue Bonds reflect the following structural assumptions:
  - Base rates reflect the ten year average for 'AAA' MMD rates.
  - To account for the tax exempt Senior Revenue Bonds credit spread over 'AAA' MMD rates, an additional 80 basis points is assumed for current interest bonds. The Senior Revenue Bonds are assumed to be uninsured.
  - The Senior Revenue Bonds feature a debt service reserve fund equal to maximum annual debt service, but no greater than 10% of proceeds in order to comply with IRS tax exempt requirements. The debt service reserve funds are expected to be cash funded in certain years based on future projected GRF balances.
  - Issuance costs include $11 per $1000 of par for underwriting and other issuance expenses.
  - Current interest bonds are assumed for each issuance, a conservative assumption given that the Commission had assumed a mix of current interest bonds and capital appreciation bonds in previous plans.
  - The debt structure assumes bonds are issued at par—that is, no discount or premium bonds are assumed.
  - Level debt structure is assumed for debt issued in 2020 and thereafter.
  - Beginning in fiscal 2017 bonds amortize over a 30 year term, a conservative assumption, given that the Commission could issue 40 year term bonds, consistent with the expected long useful life of the assets being financed.
  - Redemption of the Series 2015A-2 Floating Rate Notes ("FRNs") totaling $50 million, maturing on 12/1/2019 and 12/1/2021.
  - Increase PAYGO between 2020 and 2029 by sweeping surplus cash when the General Reserve Fund is greater than approximately $350 million and utilizes the surplus cash to reduce bonding.
  - A minimum debt service coverage ratio of at least 2.00x is assumed in order to maintain financial flexibility, provide resources for pay-as-you-go capital, meet liquidity requirements and retain mid-investment grade ratings to ensure broad market access.

- Contributions from the Turnpike General Reserve Fund are used to fund $50 million in Act 44 obligations extending through fiscal 2022 and all Act 44 obligations thereafter.

- After meeting the Turnpike General Reserve Fund policy where the balance equals at least 10% of that fiscal year's revenues, most remaining revenues are used to supplement PAYGO capital or for Act 44 purposes, either directly (through pay-as-you-go contributions) or indirectly (through debt service payments on Subordinate Revenue Bonds).

- The Subordinate Revenue Bonds reflect the following structural features:
  - Base rates reflect the ten year average for 'AAA' MMD rates for tax exempt bonds.
  - To account for the tax exempt Subordinate Revenue Bonds' credit spread over 'AAA' MMD rates, an additional 115 basis points is assumed for current interest bonds and 190 basis points for capital appreciation bonds. The Subordinate Revenue Bonds are assumed to be uninsured.

- The Subordinate Revenue Bonds feature a debt service reserve fund equal to the lesser of 10% of initial principal, 125% of average annual debt service or maximum annual debt service.
- Issuance costs include $11 per $1000 of par for cost of underwriting and issuance.
- A mix of current interest bonds and capital appreciation bonds are assumed.
- The debt structure assumes bonds are issued at par (i.e., no discount or premium bonds are assumed). Annual debt service escalates somewhat relative to the projected growth in net revenues.
- Subordinate Revenue Bonds have a 30 year amortization. Debt service coverage provided by net revenues is targeted to be at least 1.30x for combined Senior Revenue Bond and Subordinate Revenue Bond debt service in order to maintain financial flexibility.
- Debt service coverage provided by net revenues is targeted to be at least 1.20x for combined Senior Revenue Bond, Subordinate Revenue Bond and outstanding Subordinate Special Revenue Bond debt service.

Financial Plan Results

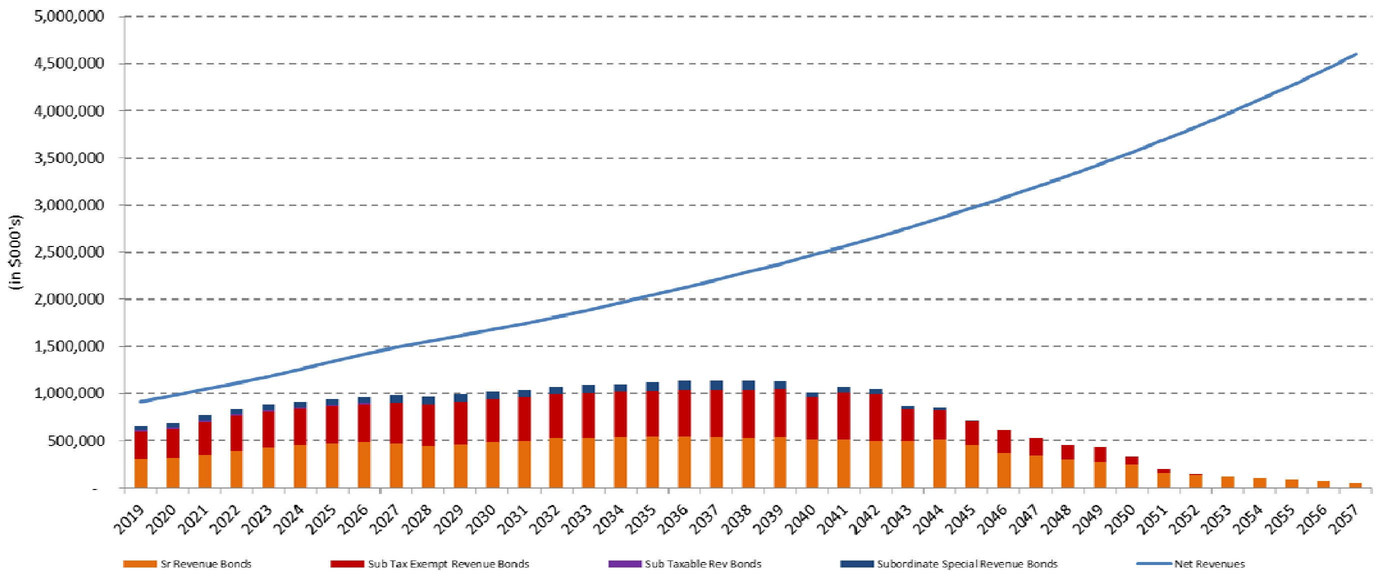
During the course of the financial plan period covering fiscal 2020-2057, the Commission is projected to generate sufficient resources to operate and maintain the Turnpike, provide for its capital investment needs to ensure the System is maintain in a state of good repair, meet debt service requirements, fund required Act 44 obligations and maintain internal liquidity. The Appendix presents the financial plan annual cash flow.

Given Turnpike capital needs and Act 44 obligations, the Commission is projected to continue to regularly access the capital markets to finance its needs. Between fiscal 2020 and 2029, PTC is projected to issue $4.5 billion in debt. This year's financial plan includes $2.9 billion in Senior Revenue Bonds and $1.6 billion in Subordinate Revenue Bonds.

For the entire 2020-2057 year financial plan period, the issuance of debt secured by Turnpike toll revenues totals $4.8 billion, consisting of $3.2 billion in Senior Revenue Bonds for Turnpike capital needs and $1.6 billion in Subordinate Revenue Bonds to meet Act 44 obligations.

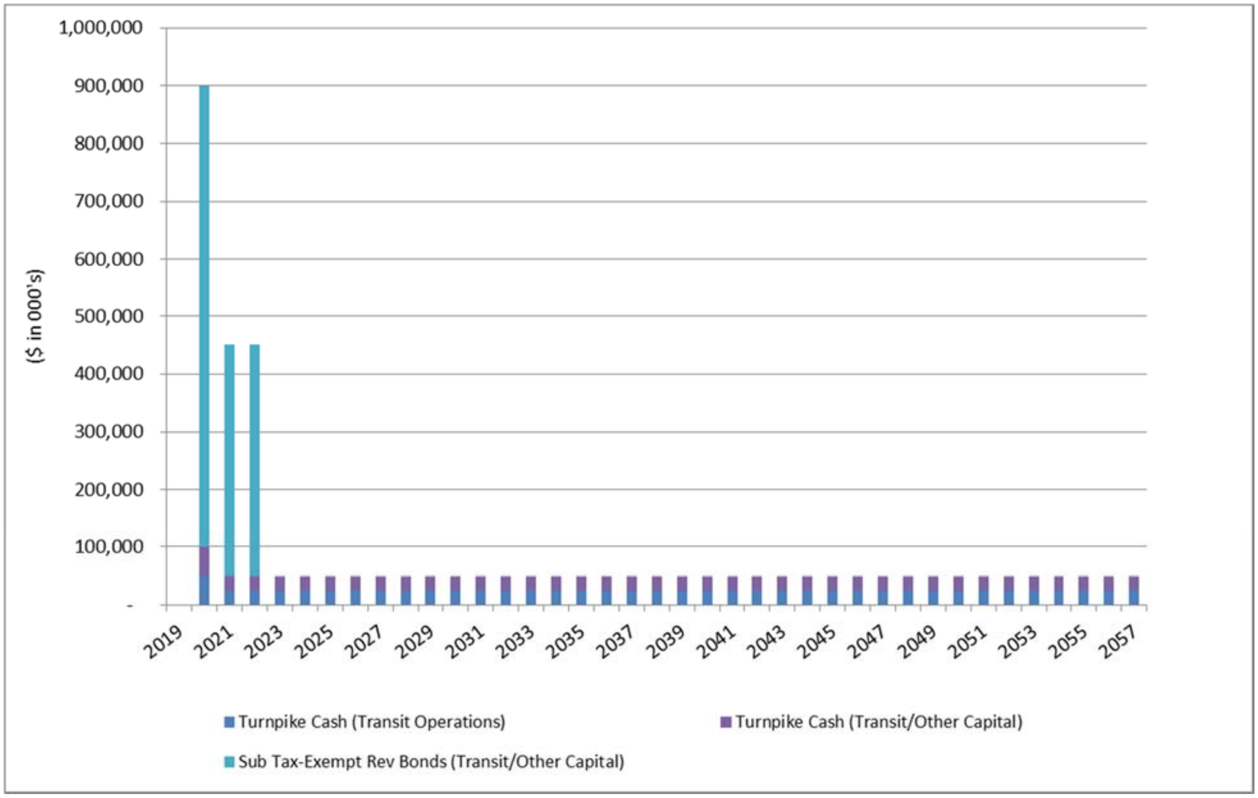
Exhibit 6 presents Turnpike net revenues relative to annual debt service obligations. PTC is projected to be less leveraged, when compared to previous year financial plans, and projected toll revenues are estimated to provide sufficient debt service coverage. Turnpike Senior Revenue Bond debt service coverage is at least 2.78x and averages 12.65x through 2057, which should enable the Turnpike to retain its current mid-investment grade bond ratings. Subordinate Revenue Bond debt service coverage is lower, but at least 1.43x and averages 10.77x through 2057. Subordinate Special Revenue Bond debt service coverage is no less than 1.34x and averages 10.68x through 2057.

Exhibit 6
Long Range Financial Plan
Turnpike Net Revenues and Debt Service
($000) Fiscal Years Ending 5/31



The financial plan is structured to maximize the use of Turnpike cash for its Act 44 transit obligations. Between fiscal 2020 and 2022 $50 million in annual Act 44 obligations is projected to be funded with Turnpike cash and the balance of $400 million will be financed with Subordinate Revenue Bonds. Beginning in fiscal 2023 all Act 44 payments will be cash funded (See Exhibit 7).

Exhibit 7
Long Range Financial Plan
Sources and Uses of Funds for Act 44 Obligations
($000) Fiscal Years Ending 5/31



To provide added protection, the financial plan assumes the Commission maintains at least 10% of annual gross revenues in the General Reserve Fund and Reserve Maintenance Fund. This internal liquidity is available to help the Commission meet its obligations in the event of a short term disruption, lower than expected revenues or higher than expected obligations.

Although the financial plan is based on reasonable financial assumptions, PTC recognizes that there are inherent uncertainties in projecting the Commission's resources and obligations over a forty year period. Downside risks to the financial plan include lower than expected traffic and toll revenues, higher interest and inflation rates and/or greater than projected cost increases. To accommodate these risks, the financial plan requires that PTC maintain strong debt service coverage and preserve internal liquidity. Nevertheless, it is also important to assess how the combination of downside risks may impact the financial plan and to identify remediation measures the Commission could implement to maintain fiscal stability. PTC will monitor its performance relative to the financial plan and take corrective action if costs are higher than projected and/or toll revenues are less than expected. While under such a scenario toll rates may need to be increased at higher rates, the Commission will explore strategies to contain cost growth or reprioritize capital initiatives to manage the level of rate adjustments and maintain fiscal stability.

VIII. Fiscal 2020 Financial Planning Activities

Fiscal 2020 Financial Planning Activities

While the Commission continues to meet its Turnpike and Act 44 financial obligations over the course of fiscal 2020, it will pursue a number of activities to refine and strengthen its financial plan. These activities, described below, will enable the Commission to solidify its key assumptions and manage potential risk.

Traffic and Revenue Forecasts

PTC will continue to review and refine its Turnpike tolling strategies and revenue projections based on its traffic consultants' assessment of recent economic conditions and their expected long term impact on traffic demand. The traffic and revenue analyses will help the Commission further optimize its toll rate setting strategy to balance the need to generate the required revenues to meet Turnpike and Act 44 obligations, with the implementation of an equitable toll rate paid by customers that does not cause undue diversions to non-tolled highways. Refined estimates of traffic demand will also help guide the Commission's capital planning efforts to determine the timing and scope of capacity expansion needs to meet future traffic demand.

Operations and Maintenance Cost Strategies

The Commission's financial plan assumes that it will hold future operations and maintenance expense growth to a 4% annual rate. During the course of the fiscal year, the Commission will evaluate updated pension contribution assumptions provided by the State Employees' Retirement System and continue to identify, evaluate and implement measures that provide recurring savings and operating efficiencies that continue to control future cost growth to the annual 4% rate over the long term.

Capital Planning

To meet the travel needs of its customers and generate the necessary revenues to meet its obligations, PTC is committed to maintaining and improving Turnpike infrastructure and providing sufficient capacity to meet future traffic demand. The Commission has a well-established ten-year capital planning effort for the Turnpike and will continue to refine and prioritize capital initiatives within the context of its plan.

Financing Initiatives

The Commission continues to successfully navigate through an evolving capital markets environment in order to meet its commitments on a timely basis. Using this year's financial plan as a guide, the Commission will evaluate alternative pay-as-you-go and debt financing structures that meet the PTC and Commonwealth's needs while preserving fiscal stability. Specific initiatives include:

- Refine the mix of debt structures used by the Commission for financing capital improvement and Act 44 needs, placing greater emphasis on the use of current interest bonds rather than capital appreciation bonds, convertible capital appreciation bonds and other options.
- Increasing the use of pay-as-you-go capital to reduce future debt issuance and leverage.

- Continually monitor interest rates to maximize the opportunity to both current and advance refund higher interest rate debt with lower interest rate debt.
- Assess the costs and benefits of variable rate and interest rate derivative strategies relative to current market conditions.
- Monitor actual financial results with financial plan assumptions and adjust the financial plan if circumstances arise that could affect the ability of the Commission to meet its obligations under Act 44.
- Update financial management policies, as needed, to better reflect changing market conditions and Turnpike and Act 44 obligations.
- Pursue innovative financing strategies that may allow the Commission to take advantage of flexible debt repayment terms and favorable borrowing rates such as the continued use of EB-5 financing.
- Continue to evaluate and implement strategies to maximize the amount of Act 44 payments eligible to be financed on a tax exempt basis.

IX. Appendices

Appendices

A. Financial Plan Cash Flows

B. Financial Management Polices

A. Financial Plan Cash Flows

Pennsylvania Turnpike Commission
Act 44 Financial Plan
($000) Fiscal Year End 5/31

	2016	2017	2018	2019	2020	2021	2022	2023	2024
Mainline Operating Income									
Adjusted Gross Toll Revenues	1,030,115	1,111,061	1,196,606	1,306,722	1,390,057	1,473,739	1,555,172	1,647,361	1,742,814
Gross Non-Toll Revenues	22,576	23,335	4,668	8,202	3,369	3,403	3,437	3,471	3,506
Gross Operating Revenues	1,052,691	1,134,396	1,201,274	1,314,924	1,393,426	1,477,142	1,558,609	1,650,832	1,746,320
Operating Expense	362,308	382,756	373,848	415,553	432,021	449,302	467,274	485,965	505,404
Interest Income (Senior DSRF and GRF earnings)	8,945	10,892	13,808	15,900	15,980	16,059	16,140	16,220	16,302
Net Turnpike Revenues Before Debt Service	699,328	762,532	841,234	915,271	977,384	1,043,899	1,107,475	1,181,087	1,257,218
Senior Turnpike Revenue Bond Debt Service	215,019	237,010	279,042	303,762	314,729	353,130	387,663	425,380	447,514
Net Income Before Capital Expense and General Reserve	484,309	525,522	562,192	611,508	662,656	690,769	719,812	755,707	809,704
Turnpike Working Capital									
Cash Beginning Balance	140,630	231,253	262,988	225,050	260,655	212,209	205,270	211,483	194,174
Construction Fund Beginning Balance (including Fed Funds reimb. used for CF)	66,997	212,444	210,400	203,179	129,262	15,600	20,000	20,000	-
Newly Sized Senior Bond Proceeds	810,146	500,000	454,900	345,000	257,283	324,521	311,699	297,043	289,929
Previously Unused Senior Bond Proceeds Used and Fed Funds Reimb.	66,997	212,444	210,400	203,179	129,262	15,600	20,000	20,000	-
Current Senior Bond Proceeds Used	597,702	289,600	261,803	246,949	257,283	324,521	311,699	297,043	289,929
Construction Fund Ending Balance	212,444	210,400	203,179	129,262	-	-	-	-	-
Net Income	484,309	525,522	562,192	611,508	662,656	690,769	719,812	755,707	809,704
Capital Expenditure	748,630	608,483	548,335	550,128	552,207	566,869	552,832	576,441	579,858
PAYGO	74,667	86,104	76,132	100,000	165,662	226,747	221,133	259,399	289,929
Additional Cash Payments for OPEB, DSRF, Defeasance	-	-	-	53,000	72,970	-	-	-	18,452
Federal Fund Reim.	31,898	55,144	29,426	58,843	15,600	20,000	20,000	-	-
Capital Expenditure Reconciliation	(57,189)	(77,736)	(78,033)	(20,001)	-	-	-	-	-
Liquidity Requirement	105,269	113,440	120,127	131,492	139,343	147,714	155,861	165,083	174,632
Liquidity Requirement Cashflow Set-aside	10,296	8,170	6,688	11,365	7,850	8,372	8,147	9,222	9,549
FRN Redemptions			100,000	50,000	-	-	-		
Subordinate DSRF Interest Earnings	4,860	4,982	4,948	6,379	6,379	6,379	6,379	6,379	6,379
Subordinate Special Revenue Bonds DSRF Interest Earnings	296	394	530	506	506	506	506	506	506
General Reserve Fund Before Subordinate Debt	519,841	590,140	569,805	609,077	683,713	674,744	702,688	705,455	692,833
Subordinate and Sub. Special Revenue Bonds Debt Service	258,589	277,152	294,755	348,422	371,504	419,474	441,204	461,281	464,687
Tax-Exempt Subordinate Bonds Debt Service	209,665	221,417	245,439	287,461	308,225	350,799	371,869	385,360	394,891
Taxable Subordinate Bonds Debt Service	12,399	12,387	11,378	17,786	17,749	17,744	17,731	16,794	10,514
Subordinate Special Revenue Bonds Debt Service	36,525	43,348	37,938	43,175	45,529	50,931	51,605	59,126	59,282
Net Funds Remaining Before Act 44 Payments	261,253	312,988	275,050	260,655	312,209	255,270	261,483	244,174	228,146

Pennsylvania Turnpike Commission
Act 44 Financial Plan
($000) Fiscal Year End 5/31

	2016	2017	2018	2019	2020	2021	2022	2023	2024
Act 44 Payment Sources									
Turnpike Cash	30,000	50,000	50,000	-	100,000	50,000	50,000	50,000	50,000
Tax-Exempt Subordinate Bond Proceeds	420,000	400,000	400,000	-	800,000	400,000	400,000	-	-
Taxable Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Subordinate Special Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-
Roads & Bridges Payments	-	-	-	-	-	-	-	-	-
Roads & Bridges Total Sources	-	-	-	-	-	-	-	-	-
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Turnpike Cash	-	-	-	-	-	-	-	-	-
Subordinate Special Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-
Transit Capital/Other Payments	340,000	340,000	425,000	-	850,000	425,000	425,000	25,000	25,000
Transit Capital/Other Total Sources	340,000	340,000	425,000	-	850,000	425,000	425,000	25,000	25,000
Turnpike Cash	30,000	30,000	25,000	-	50,000	25,000	25,000	25,000	25,000
Tax-Exempt Subordinate Bond Proceeds	310,000	310,000	400,000	-	800,000	400,000	400,000	-	-
Transit Operations Payments	110,000	110,000	25,000	-	50,000	25,000	25,000	25,000	25,000
Transit Operations Total Sources	110,000	110,000	25,000	-	50,000	25,000	25,000	25,000	25,000
Turnpike Cash	-	20,000	25,000	-	50,000	25,000	25,000	25,000	25,000
Tax-Exempt Subordinate Bond Proceeds	110,000	90,000	-	-	-	-	-	-	-
Taxable Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Total Act 44 Payments	450,000	450,000	450,000	-	900,000	450,000	450,000	50,000	50,000
Total Act 44 Sources	450,000	450,000	450,000	-	900,000	450,000	450,000	50,000	50,000
Remaining Turnpike Cash	231,253	262,988	225,050	260,655	212,209	205,270	211,483	194,174	178,146
Turnpike General Reserve	336,522	376,427	345,177	392,147	351,552	352,984	367,344	359,257	352,778
Coverage Calculations									
Mainline Debt Service Coverage									
Senior Lien									
Pledged Revenues	699,328	762,532	841,234	915,271	977,384	1,043,899	1,107,475	1,181,087	1,257,218
Debt Service	(215,019)	(237,010)	(279,042)	(303,762)	(314,729)	(353,130)	(387,663)	(425,380)	(447,514)
Coverage	3.25 x	3.22 x	3.01 x	3.01 x	3.11 x	2.96 x	2.86 x	2.78 x	2.81 x
Subordinate Lien									
Pledged Revenues	704,188	767,514	846,182	921,650	983,763	1,050,278	1,113,854	1,187,466	1,263,597
Debt Service	(437,083)	(470,814)	(535,860)	(609,009)	(640,703)	(721,673)	(777,262)	(827,534)	(852,919)
Coverage	1.61 x	1.63 x	1.58 x	1.51 x	1.54 x	1.46 x	1.43 x	1.43 x	1.48 x
Subordinate Special Revenue Lien									
Pledged Revenues	704,484	767,908	846,712	922,156	984,269	1,050,784	1,114,360	1,187,972	1,264,103
Debt Service	(473,608)	(514,162)	(573,797)	(652,185)	(686,232)	(772,604)	(828,867)	(886,660)	(912,201)
Coverage	1.49 x	1.49 x	1.48 x	1.41 x	1.43 x	1.36 x	1.34 x	1.34 x	1.39 x

Pennsylvania Turnpike Commission
Act 44 Financial Plan
($000) Fiscal Year End 5/31

	2025	2026	2027	2028	2029	2030	2031	2032	2033
Mainline Operating Income									
Adjusted Gross Toll Revenues	1,844,500	1,946,821	2,039,137	2,124,036	2,206,883	2,295,186	2,386,729	2,482,933	2,584,008
Gross Non-Toll Revenues	3,541	3,576	3,612	3,648	3,684	3,721	3,758	3,796	3,834
Gross Operating Revenues	1,848,041	1,950,397	2,042,749	2,127,684	2,210,568	2,298,908	2,390,487	2,486,729	2,587,842
Operating Expense	525,620	546,645	568,511	591,251	614,901	639,497	665,077	691,680	719,347
Interest Income (Senior DSRF and GRF earnings)	16,383	16,465	16,630	16,796	16,964	17,134	17,305	17,478	17,653
Net Turnpike Revenues Before Debt Service	1,338,804	1,420,217	1,490,867	1,553,229	1,612,631	1,676,544	1,742,715	1,812,527	1,886,147
Senior Turnpike Revenue Bond Debt Service	466,616	484,809	471,195	444,196	459,808	485,292	495,001	526,350	534,016
Net Income Before Capital Expense and General Reserve	872,188	935,408	1,019,672	1,109,033	1,152,823	1,191,252	1,247,714	1,286,177	1,352,131
Turnpike Working Capital									
Cash Beginning Balance	178,146	184,727	194,922	218,462	292,419	364,013	388,677	439,495	499,402
Construction Fund Beginning Balance (including Fed Funds reimb. used for CF)	-	-	-	-	-	-	-	-	-
Newly Sized Senior Bond Proceeds	265,706	252,666	222,897	192,067	123,405	64,171	66,738	69,407	72,183
Previously Unused Senior Bond Proceeds Used and Fed Funds Reimb.	-	-	-	-	-	-	-	-	-
Current Senior Bond Proceeds Used	265,706	252,666	222,897	192,067	123,405	64,171	66,738	69,407	72,183
Construction Fund Ending Balance	-	-	-	-	-	-	-	-	-
Net Income	872,188	935,408	1,019,672	1,109,033	1,152,823	1,191,252	1,247,714	1,286,177	1,352,131
Capital Expenditure	590,458	631,664	636,848	640,225	617,027	641,708	667,376	694,071	721,834
PAYGO	324,752	378,998	413,951	448,157	493,621	577,537	600,639	624,664	649,651
Additional Cash Payments for OPEB, DSRF, Defeasance	16,910	16,081	14,186	12,224	-	-	-	-	-
Federal Fund Reim.	-	-	-	-	-	-	-	-	-
Capital Expenditure Reconciliation	-	-	-	-	-	-	-	-	-
Liquidity Requirement	184,804	195,040	204,275	212,768	221,057	229,891	239,049	248,673	258,784
Liquidity Requirement Cashflow Set-aside	10,172	10,236	9,235	8,494	8,288	8,834	9,158	9,624	10,111
FRN Redemptions									
Subordinate DSRF Interest Earnings	6,379	6,379	6,379	6,379	6,379	6,379	6,379	6,379	6,379
Subordinate Special Revenue Bonds DSRF Interest Earnings	506	506	506	506	506	506	506	506	506
General Reserve Fund Before Subordinate Debt	705,385	721,705	784,107	865,504	950,217	975,779	1,033,479	1,098,269	1,198,656
Subordinate and Sub. Special Revenue Bonds Debt Service	470,657	476,784	515,645	523,086	536,204	537,102	543,984	548,867	554,270
Tax-Exempt Subordinate Bonds Debt Service	399,825	405,693	437,581	443,495	454,834	457,358	462,677	465,457	468,567
Taxable Subordinate Bonds Debt Service	10,520	10,519	-	-	-	-	-	-	-
Subordinate Special Revenue Bonds Debt Service	60,312	60,571	78,065	79,591	81,369	79,745	81,307	83,410	85,702
Net Funds Remaining Before Act 44 Payments	234,727	244,922	268,462	342,419	414,013	438,677	489,495	549,402	644,387

Pennsylvania Turnpike Commission
Act 44 Financial Plan
($000) Fiscal Year End 5/31

	2025	2026	2027	2028	2029	2030	2031	2032	2033
Act 44 Payment Sources									
Turnpike Cash	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Taxable Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Subordinate Special Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-
Roads & Bridges Payments	-	-	-	-	-	-	-	-	-
Roads & Bridges Total Sources	-	-	-	-	-	-	-	-	-
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Turnpike Cash	-	-	-	-	-	-	-	-	-
Subordinate Special Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-
Transit Capital/Other Payments	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Transit Capital/Other Total Sources	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Turnpike Cash	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Transit Operations Payments	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Transit Operations Total Sources	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Turnpike Cash	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Taxable Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Total Act 44 Payments	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Total Act 44 Sources	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Remaining Turnpike Cash	184,727	194,922	218,462	292,419	364,013	388,677	439,495	499,402	594,387
Turnpike General Reserve	369,531	389,962	422,736	505,187	585,070	618,567	678,544	748,075	853,171
Coverage Calculations									
Mainline Debt Service Coverage									
Senior Lien									
Pledged Revenues	1,338,804	1,420,217	1,490,867	1,553,229	1,612,631	1,676,544	1,742,715	1,812,527	1,886,147
Debt Service	(466,616)	(484,809)	(471,195)	(444,196)	(459,808)	(485,292)	(495,001)	(526,350)	(534,016)
Coverage	2.87 x	2.93 x	3.16 x	3.50 x	3.51 x	3.45 x	3.52 x	3.44 x	3.53 x
Subordinate Lien									
Pledged Revenues	1,345,183	1,426,596	1,497,246	1,559,608	1,619,010	1,682,923	1,749,094	1,818,906	1,892,526
Debt Service	(876,961)	(901,022)	(908,776)	(887,691)	(914,642)	(942,650)	(957,678)	(991,807)	(1,002,584)
Coverage	1.53 x	1.58 x	1.65 x	1.76 x	1.77 x	1.79 x	1.83 x	1.83 x	1.89 x
Subordinate Special Revenue Lien									
Pledged Revenues	1,345,689	1,427,102	1,497,752	1,560,114	1,619,516	1,683,429	1,749,600	1,819,412	1,893,032
Debt Service	(937,273)	(961,593)	(986,841)	(967,282)	(996,011)	(1,022,395)	(1,038,985)	(1,075,216)	(1,088,286)
Coverage	1.44 x	1.48 x	1.52 x	1.61 x	1.63 x	1.65 x	1.68 x	1.69 x	1.74 x

Pennsylvania Turnpike Commission
Act 44 Financial Plan
($000) Fiscal Year End 5/31

	2034	2035	2036	2037	2038	2039	2040	2041	2042
Mainline Operating Income									
Adjusted Gross Toll Revenues	2,688,432	2,796,466	2,908,287	3,023,823	3,142,370	3,264,899	3,391,799	3,523,128	3,659,011
Gross Non-Toll Revenues	3,872	3,911	3,950	3,990	4,030	4,070	4,111	4,152	4,193
Gross Operating Revenues	2,692,304	2,800,377	2,912,237	3,027,813	3,146,400	3,268,969	3,395,909	3,527,280	3,663,205
Operating Expense	748,121	778,046	809,168	841,535	875,196	910,204	946,612	984,477	1,023,856
Interest Income (Senior DSRF and GRF earnings)	17,829	18,008	18,188	18,369	18,553	18,739	18,926	19,115	19,307
Net Turnpike Revenues Before Debt Service	1,962,012	2,040,339	2,121,256	2,204,648	2,289,757	2,377,503	2,468,223	2,561,919	2,658,655
Senior Turnpike Revenue Bond Debt Service	540,430	545,604	546,257	543,489	533,413	537,193	514,534	514,093	494,525
Net Income Before Capital Expense and General Reserve	1,421,582	1,494,735	1,574,999	1,661,158	1,756,344	1,840,310	1,953,689	2,047,826	2,164,131
Turnpike Working Capital									
Cash Beginning Balance	594,387	647,962	733,143	856,031	1,022,618	1,241,603	1,521,121	1,965,300	2,406,116
Construction Fund Beginning Balance (including Fed Funds reimb. used for CF)	-	-	-	-	-	-	-	-	-
Newly Sized Senior Bond Proceeds	-	-	-	-	-	-	-	-	-
Previously Unused Senior Bond Proceeds Used and Fed Funds Reimb.	-	-	-	-	-	-	-	-	-
Current Senior Bond Proceeds Used	-	-	-	-	-	-	-	-	-
Construction Fund Ending Balance	-	-	-	-	-	-	-	-	-
Net Income	1,421,582	1,494,735	1,574,999	1,661,158	1,756,344	1,840,310	1,953,689	2,047,826	2,164,131
Capital Expenditure	750,707	780,736	811,965	844,444	878,221	913,350	949,884	987,880	1,027,395
PAYGO	750,707	780,736	811,965	844,444	878,221	913,350	949,884	987,880	1,027,395
Additional Cash Payments for OPEB, DSRF, Defeasance	-	-	-	-	-	-	-	-	-
Federal Fund Reim.	-	-	-	-	-	-	-	-	-
Capital Expenditure Reconciliation	-	-	-	-	-	-	-	-	-
Liquidity Requirement	269,230	280,038	291,224	302,781	314,640	326,897	339,591	352,728	366,320
Liquidity Requirement Cashflow Set-aside	10,446	10,807	11,186	11,558	11,859	12,257	12,694	13,137	13,592
FRN Redemptions									
Subordinate DSRF Interest Earnings	6,379	6,379	6,379	6,379	6,379	6,379	3,255	3,255	3,174
Subordinate Special Revenue Bonds DSRF Interest Earnings	506	506	506	506	506	506	320	320	282
General Reserve Fund Before Subordinate Debt	1,261,700	1,358,039	1,491,876	1,668,073	1,895,767	2,163,190	2,515,807	3,015,684	3,532,715
Subordinate and Sub. Special Revenue Bonds Debt Service	563,738	574,896	585,845	595,455	604,164	592,069	500,507	559,568	550,301
Tax-Exempt Subordinate Bonds Debt Service	475,780	484,562	490,124	497,453	503,084	506,261	439,883	497,995	495,739
Taxable Subordinate Bonds Debt Service	-	-	-	-	-	-	-	-	-
Subordinate Special Revenue Bonds Debt Service	87,958	90,334	95,720	98,002	101,081	85,808	60,625	61,573	54,562
Net Funds Remaining Before Act 44 Payments	697,962	783,143	906,031	1,072,618	1,291,603	1,571,121	2,015,300	2,456,116	2,982,414

($000) Fiscal Year End 5/31

	2034	2035	2036	2037	2038	2039	2040	2041	2042
Act 44 Payment Sources									
Turnpike Cash	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Taxable Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Subordinate Special Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-
Roads & Bridges Payments	-	-	-	-	-	-	-	-	-
Roads & Bridges Total Sources	-	-	-	-	-	-	-	-	-
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Turnpike Cash	-	-	-	-	-	-	-	-	-
Subordinate Special Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-
Transit Capital/Other Payments	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Transit Capital/Other Total Sources	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Turnpike Cash	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Transit Operations Payments	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Transit Operations Total Sources	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Turnpike Cash	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Taxable Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Total Act 44 Payments	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Total Act 44 Sources	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Remaining Turnpike Cash	647,962	733,143	856,031	1,022,618	1,241,603	1,521,121	1,965,300	2,406,116	2,932,414
Turnpike General Reserve	917,193	1,013,181	1,147,255	1,325,399	1,556,243	1,848,018	2,304,891	2,758,844	3,298,734
Coverage Calculations									
Mainline Debt Service Coverage									
Senior Lien									
Pledged Revenues	1,962,012	2,040,339	2,121,256	2,204,648	2,289,757	2,377,503	2,468,223	2,561,919	2,658,655
Debt Service	(540,430)	(545,604)	(546,257)	(543,489)	(533,413)	(537,193)	(514,534)	(514,093)	(494,525)
Coverage	3.63 x	3.74 x	3.88 x	4.06 x	4.29 x	4.43 x	4.80 x	4.98 x	5.38 x
Subordinate Lien									
Pledged Revenues	1,968,391	2,046,718	2,127,635	2,211,027	2,296,136	2,383,882	2,471,478	2,565,174	2,661,829
Debt Service	(1,016,210)	(1,030,166)	(1,036,382)	(1,040,942)	(1,036,496)	(1,043,455)	(954,417)	(1,012,089)	(990,264)
Coverage	1.94 x	1.99 x	2.05 x	2.12 x	2.22 x	2.28 x	2.59 x	2.53 x	2.69 x
Subordinate Special Revenue Lien									
Pledged Revenues	1,968,897	2,047,224	2,128,141	2,211,533	2,296,642	2,384,388	2,471,799	2,565,494	2,662,111
Debt Service	(1,104,168)	(1,120,500)	(1,132,102)	(1,138,945)	(1,137,577)	(1,129,262)	(1,015,042)	(1,073,662)	(1,044,826)
Coverage	1.78 x	1.83 x	1.88 x	1.94 x	2.02 x	2.11 x	2.44 x	2.39 x	2.55 x

Pennsylvania Turnpike Commission
Act 44 Financial Plan
($000) Fiscal Year End 5/31

	2043	2044	2045	2046	2047	2048	2049	2050	2051
Mainline Operating Income									
Adjusted Gross Toll Revenues	3,799,505	3,944,855	4,095,230	4,250,751	4,411,783	4,578,572	4,751,678	4,933,376	5,122,022
Gross Non-Toll Revenues	4,235	4,277	4,320	4,363	4,407	4,451	4,496	4,541	4,586
Gross Operating Revenues	3,803,740	3,949,132	4,099,551	4,255,115	4,416,190	4,583,023	4,756,174	4,937,917	5,126,608
Operating Expense	1,064,810	1,107,402	1,151,698	1,197,766	1,245,677	1,295,504	1,347,324	1,401,217	1,457,266
Interest Income (Senior DSRF and GRF earnings)	19,500	19,695	19,892	20,090	20,291	20,494	20,699	20,906	21,115
Net Turnpike Revenues Before Debt Service	2,758,430	2,861,425	2,967,744	3,077,439	3,190,805	3,308,013	3,429,549	3,557,606	3,690,458
Senior Turnpike Revenue Bond Debt Service	498,918	514,031	453,469	371,149	342,107	297,636	274,658	247,340	159,718
Net Income Before Capital Expense and General Reserve	2,259,512	2,347,393	2,514,274	2,706,290	2,848,698	3,010,377	3,154,891	3,310,266	3,530,740
Turnpike Working Capital									
Cash Beginning Balance	2,932,414	3,689,593	4,526,914	5,558,302	6,754,036	8,094,128	9,581,459	11,161,373	12,908,559
Construction Fund Beginning Balance (including Fed Funds reimb. used for CF)	-	-	-	-	-	-	-	-	-
Newly Sized Senior Bond Proceeds	-	-	-	-	-	-	-	-	-
Previously Unused Senior Bond Proceeds Used and Fed Funds Reimb.	-	-	-	-	-	-	-	-	-
Current Senior Bond Proceeds Used	-	-	-	-	-	-	-	-	-
Construction Fund Ending Balance	-	-	-	-	-	-	-	-	-
Net Income	2,259,512	2,347,393	2,514,274	2,706,290	2,848,698	3,010,377	3,154,891	3,310,266	3,530,740
Capital Expenditure	1,068,491	1,111,230	1,155,680	1,201,907	1,249,983	1,299,982	1,351,982	1,406,061	1,462,303
PAYGO	1,068,491	1,111,230	1,155,680	1,201,907	1,249,983	1,299,982	1,351,982	1,406,061	1,462,303
Additional Cash Payments for OPEB, DSRF, Defeasance	-	-	-	-	-	-	-	-	-
Federal Fund Reim.	-	-	-	-	-	-	-	-	-
Capital Expenditure Reconciliation	-	-	-	-	-	-	-	-	-
Liquidity Requirement	380,374	394,913	409,955	425,511	441,619	458,302	475,617	493,792	512,661
Liquidity Requirement Cashflow Set-aside	14,054	14,539	15,042	15,556	16,108	16,683	17,315	18,174	18,869
FRN Redemptions									
Subordinate DSRF Interest Earnings	1,408	1,137	549	344	14	-	-	-	-
Subordinate Special Revenue Bonds DSRF Interest Earnings	200	127	26	-	-	-	-	-	-
General Reserve Fund Before Subordinate Debt	4,110,990	4,912,480	5,871,042	7,047,473	8,336,657	9,787,839	11,367,052	13,047,404	14,958,127
Subordinate and Sub. Special Revenue Bonds Debt Service	371,398	335,566	262,740	243,437	192,529	156,381	155,679	88,845	45,003
Tax-Exempt Subordinate Bonds Debt Service	331,299	310,168	257,564	243,437	192,529	156,381	155,679	88,845	45,003
Taxable Subordinate Bonds Debt Service	-	-	-	-	-	-	-	-	-
Subordinate Special Revenue Bonds Debt Service	40,098	25,398	5,177	-	-	-	-	-	-
Net Funds Remaining Before Act 44 Payments	3,739,593	4,576,914	5,608,302	6,804,036	8,144,128	9,631,459	11,211,373	12,958,559	14,913,124

Pennsylvania Turnpike Commission
Act 44 Financial Plan
($000) Fiscal Year End 5/31

	2043	2044	2045	2046	2047	2048	2049	2050	2051
Act 44 Payment Sources									
Turnpike Cash	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Taxable Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Subordinate Special Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-
Roads & Bridges Payments	-	-	-	-	-	-	-	-	-
Roads & Bridges Total Sources	-	-	-	-	-	-	-	-	-
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Turnpike Cash	-	-	-	-	-	-	-	-	-
Subordinate Special Revenue Bond Proceeds	-	-	-	-	-	-	-	-	-
Transit Capital/Other Payments	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Transit Capital/Other Total Sources	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Turnpike Cash	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Transit Operations Payments	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Transit Operations Total Sources	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Turnpike Cash	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Taxable Subordinate Bond Proceeds	-	-	-	-	-	-	-	-	-
Total Act 44 Payments	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Total Act 44 Sources	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Remaining Turnpike Cash	3,689,593	4,526,914	5,558,302	6,754,036	8,094,128	9,581,459	11,161,373	12,908,559	14,863,124
Turnpike General Reserve	4,069,967	4,921,827	5,968,257	7,179,548	8,535,747	10,039,761	11,636,991	13,402,351	15,375,785
Coverage Calculations									
Mainline Debt Service Coverage									
Senior Lien									
Pledged Revenues	2,758,430	2,861,425	2,967,744	3,077,439	3,190,805	3,308,013	3,429,549	3,557,606	3,690,458
Debt Service	(498,918)	(514,031)	(453,469)	(371,149)	(342,107)	(297,636)	(274,658)	(247,340)	(159,718)
Coverage	5.53 x	5.57 x	6.54 x	8.29 x	9.33 x	11.11 x	12.49 x	14.38 x	23.11 x
Subordinate Lien									
Pledged Revenues	2,759,838	2,862,562	2,968,293	3,077,783	3,190,818	3,308,013	3,429,549	3,557,606	3,690,458
Debt Service	(830,217)	(824,199)	(711,033)	(614,586)	(534,636)	(454,017)	(430,338)	(336,185)	(204,721)
Coverage	3.32 x	3.47 x	4.17 x	5.01 x	5.97 x	7.29 x	7.97 x	10.58 x	18.03 x
Subordinate Special Revenue Lien									
Pledged Revenues	2,760,039	2,862,689	2,968,319	3,077,783	3,190,818	3,308,013	3,429,549	3,557,606	3,690,458
Debt Service	(870,316)	(849,597)	(716,210)	(614,586)	(534,636)	(454,017)	(430,338)	(336,185)	(204,721)
Coverage	3.17 x	3.37 x	4.14 x	5.01 x	5.97 x	7.29 x	7.97 x	10.58 x	18.03 x

Pennsylvania Turnpike Commission
Act 44 Financial Plan
($000) Fiscal Year End 5/31

	2052	2053	2054	2055	2056	2057
Mainline Operating Income						
Adjusted Gross Toll Revenues	5,317,882	5,521,230	5,732,354	5,951,552	6,179,131	6,415,412
Gross Non-Toll Revenues	4,632	4,678	4,725	4,772	4,820	4,868
Gross Operating Revenues	5,322,513	5,525,908	5,737,079	5,956,324	6,183,951	6,420,280
Operating Expense	1,515,556	1,576,179	1,639,226	1,704,795	1,772,987	1,843,906
Interest Income (Senior DSRF and GRF earnings)	21,326	21,540	21,755	21,973	22,192	22,414
Net Turnpike Revenues Before Debt Service	3,828,283	3,971,269	4,119,609	4,273,502	4,433,156	4,598,788
Senior Turnpike Revenue Bond Debt Service	139,371	119,837	101,231	83,083	66,458	50,659
Net Income Before Capital Expense and General Reserve	3,688,913	3,851,432	4,018,377	4,190,419	4,366,698	4,548,129
Turnpike Working Capital						
Cash Beginning Balance	14,863,124	16,956,430	19,155,895	21,458,263	23,866,069	26,380,889
Construction Fund Beginning Balance (including Fed Funds reimb. used for CF)	-	-	-	-	-	-
Newly Sized Senior Bond Proceeds	-	-	-	-	-	-
Previously Unused Senior Bond Proceeds Used and Fed Funds Reimb.	-	-	-	-	-	-
Current Senior Bond Proceeds Used	-	-	-	-	-	-
Construction Fund Ending Balance	-	-	-	-	-	-
Net Income	3,688,913	3,851,432	4,018,377	4,190,419	4,366,698	4,548,129
Capital Expenditure	1,520,795	1,581,627	1,644,892	1,710,688	1,779,116	1,850,280
PAYGO	1,520,795	1,581,627	1,644,892	1,710,688	1,779,116	1,850,280
Additional Cash Payments for OPEB, DSRF, Defeasance	-	-	-	-	-	-
Federal Fund Reim.	-	-	-	-	-	-
Capital Expenditure Reconciliation	-	-	-	-	-	-
Liquidity Requirement	532,251	552,591	573,708	595,632	618,395	642,028
Liquidity Requirement Cashflow Set-aside	19,591	20,339	21,117	21,924	22,763	23,633
FRN Redemptions						
Subordinate DSRF Interest Earnings	-	-	-	-	-	-
Subordinate Special Revenue Bonds DSRF Interest Earnings	-	-	-	-	-	-
General Reserve Fund Before Subordinate Debt	17,011,650	19,205,895	21,508,263	23,916,069	26,430,889	29,055,105
Subordinate and Sub. Special Revenue Bonds Debt Service	5,221	-	-	-	-	-
Tax-Exempt Subordinate Bonds Debt Service	5,221	-	-	-	-	-
Taxable Subordinate Bonds Debt Service	-	-	-	-	-	-
Subordinate Special Revenue Bonds Debt Service	-	-	-	-	-	-
Net Funds Remaining Before Act 44 Payments	17,006,430	19,205,895	21,508,263	23,916,069	26,430,889	29,055,105

Pennsylvania Turnpike Commission
Act 44 Financial Plan
($000) Fiscal Year End 5/31

	2052	2053	2054	2055	2056	2057
Act 44 Payment Sources						
Turnpike Cash	50,000	50,000	50,000	50,000	50,000	50,000
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-
Taxable Subordinate Bond Proceeds	-	-	-	-	-	-
Subordinate Special Revenue Bond Proceeds	-	-	-	-	-	-
Roads & Bridges Payments	-	-	-	-	-	-
Roads & Bridges Total Sources	-	-	-	-	-	-
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-
Turnpike Cash	-	-	-	-	-	-
Subordinate Special Revenue Bond Proceeds	-	-	-	-	-	-
Transit Capital/Other Payments	25,000	25,000	25,000	25,000	25,000	25,000
Transit Capital/Other Total Sources	25,000	25,000	25,000	25,000	25,000	25,000
Turnpike Cash	25,000	25,000	25,000	25,000	25,000	25,000
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-
Transit Operations Payments	25,000	25,000	25,000	25,000	25,000	25,000
Transit Operations Total Sources	25,000	25,000	25,000	25,000	25,000	25,000
Turnpike Cash	25,000	25,000	25,000	25,000	25,000	25,000
Tax-Exempt Subordinate Bond Proceeds	-	-	-	-	-	-
Taxable Subordinate Bond Proceeds	-	-	-	-	-	-
Total Act 44 Payments	50,000	50,000	50,000	50,000	50,000	50,000
Total Act 44 Sources	50,000	50,000	50,000	50,000	50,000	50,000
Remaining Turnpike Cash	16,956,430	19,155,895	21,458,263	23,866,069	26,380,889	29,005,105
Turnpike General Reserve	17,488,681	19,708,486	22,031,971	24,461,701	26,999,284	29,647,133
Coverage Calculations						
Mainline Debt Service Coverage						
Senior Lien						
Pledged Revenues	3,828,283	3,971,269	4,119,609	4,273,502	4,433,156	4,598,788
Debt Service	(139,371)	(119,837)	(101,231)	(83,083)	(66,458)	(50,659)
Coverage	27.47 x	33.14 x	40.69 x	51.44 x	66.71 x	90.78 x
Subordinate Lien						
Pledged Revenues	3,828,283	3,971,269	4,119,609	4,273,502	4,433,156	4,598,788
Debt Service	(144,591)	(119,837)	(101,231)	(83,083)	(66,458)	(50,659)
Coverage	26.48 x	33.14 x	40.69 x	51.44 x	66.71 x	90.78 x
Subordinate Special Revenue Lien						
Pledged Revenues	3,828,283	3,971,269	4,119,609	4,273,502	4,433,156	4,598,788
Debt Service	(144,591)	(119,837)	(101,231)	(83,083)	(66,458)	(50,659)
Coverage	26.48 x	33.14 x	40.69 x	51.44 x	66.71 x	90.78 x

B. Financial Management Polices

<table>
<tr><td colspan="2">PA TURNPIKE COMMISSION POLICY
This is a statement of official Pennsylvania Turnpike Policy</td><td rowspan="2">NUMBER: 7.03
APPROVAL DATE: 04-20-2004
EFFECTIVE DATE: 05-05-2004
REVISED DATE: 10-02-2018</td></tr>
<tr><td>POLICY SUBJECT:
Debt Management</td><td>RESPONSIBLE DEPARTMENT:
Finance and Administration</td></tr>
</table>

A. Purpose:

The purpose of this policy is to establish sound, prudent and appropriate parameters and to provide guidance governing the issuance, management, continuing evaluation of and reporting on all debt obligations issued by the Pennsylvania Turnpike Commission ("Commission"), and to provide for the preparation and implementation necessary to assure compliance and conformity with this policy. Recognizing the importance and value to the Commission's creditworthiness and marketability of the Commission's bonds, this policy is intended to ensure that any and all potential debt structures comply with all applicable laws and regulations, as well as sound financial principles.

B. Policy Statement:

Under the governance and guidance of its various Indentures, the Commission may periodically enter into debt obligations to finance the construction of infrastructure and other assets, fund Act 44 obligations or to refinance existing debt for the purpose of meeting its responsibilities to users of the Turnpike. It is the Commission's desire and direction to assure that such debt obligations are issued and administered in such fashion as to obtain the best long-term financial advantage to the Commission.

The Commission will limit long-term borrowing to fund primarily capital improvements, projects, or equipment that cannot be financed from current financial resources. In an effort to maximize capital funding availability, the Commission shall utilize a reasonable mix of borrowing and pay-as-you-go funding. The Commission will not fund current operations or normal maintenance of the Commission from the proceeds of long-term financing.

The Commission shall seek to maintain investment grade bond ratings so borrowing costs are minimized and access to credit is preserved. It is imperative that the Commission demonstrates to rating agencies, investors, creditors and users of the Turnpike that Commission officials are following a prescribed financial plan and adhering to sound financial policy. The Commission will follow a practice of full disclosure by regularly communicating with bond rating agencies and Electronic Municipal Market Access (EMMA) operated by the Municipal Securities Rulemaking Board (MSRB) to inform them of the Commission's current financial condition and future financial outlook.

The Commission will strive to review this Debt Management Policy on an annual basis and update it on a timely basis as necessary.

C. Uses:

Bond proceeds are limited to financing the costs of planning, design, land acquisition, buildings, permanent structures, attached fixtures or equipment and “rolling stock” equipment or to fund Act 44 Obligations. Generally acceptable uses of bond proceeds can be viewed as items that can be capitalized where possible. Non-capital furnishings and supplies are not to be financed from bond proceeds. Refunding bond issues that are intended to restructure currently outstanding debt in order to reduce debt service costs are an acceptable use of bond proceeds.

The Commission may use short-term borrowing to finance operating needs but only in the case of an extreme financial liquidity condition that is beyond its control or reasonable ability to forecast.

D. Decision Analysis:

The Ten Year Capital Plan (“Capital Plan”) is the process for identifying both short and long-term needs, establishing priorities, examining long-range financial implications and the overall effectiveness of funding such long term needs with debt. The Capital Plan will be prepared on an annual basis and will list each project and its priority, its estimated cost and proposed funding source. The Commission will measure the impact of total debt service requirements including both outstanding and proposed debt obligations on one, five, ten and thirty-year periods. This analysis will include debt service maturities and payment patterns.

The Commission will use the services of qualified internal staff and external advisors to assist in the analysis, evaluation, and decision process. In addition to debt analysis, the decision process may include financial, government and economic reviews. For example, potential funding streams may be identified and their respective financial and legal impacts assessed versus various alternatives.

E. Specific Debt Policies, Ratios and Measurement

This section of the Debt Management Policy establishes guidance for target debt policies, ratios and measurements for the Commission in the following categories:

A. Constraints, Ratios and Measurements

B. Measurements of Future Flexibility

A. Constraints, Ratios and Measures

The following constraints, ratios and measures shall govern the issuance and administration of debt obligations:

1. Purposes of Issuance - The Commission will issue debt obligations for acquiring, constructing, reconstructing or renovating Capital Improvements or for refinancing existing debt obligations for any other permitted purpose. The Commission may also issue debt to meet its obligations under Act 44 of 2007.

2. Maximum Maturity - All debt obligations shall have a maximum maturity of the earlier of: (i) the estimated useful life of the Capital Improvements being financed; or, (ii) thirty years (unless a longer term is recommended by external advisors): or, (iii), in the event they are being issued to refinance outstanding debt obligations, the final maturity of the existing debt obligations being refinanced, or the latest estimate of the useful life of the capital improvements originally financed with the refunded bonds.

3. Annual Debt Service - The Commission will strive to structure debt issues to maintain a level or declining overall annual debt service structure.

4. Variable Rate Debt – The Commission will strive to maintain unhedged variable rate debt levels no greater than 25% of its total outstanding debt. On a periodic basis the Commission will reassess its acceptable level of variable rate debt assets in order to maintain a relative balance that mitigates potential long-term interest rate risk exposure under conditions of either rising or declining market interest rates.

5. Present Value Savings – The Commission shall continually monitor its outstanding debt for the purpose of determining if existing financial marketplace conditions afford the Commission the opportunity to refund existing issues and lessen debt service costs. In order to consider and favorably recommend the possible refunding of an issue, the Commission will generally look to attain at least a minimum acceptable threshold level of net Present Value (PV) savings over the life of the respective issue.

6. Bond Covenants and Laws - The Commission shall comply with all covenants and requirements of the bond resolutions, and state and federal laws authorizing and governing the issuance and administration of debt obligations. Further, the Commission shall consult with bond counsel regarding any such legal issues.

7. Rate Covenant as to Tolls for Traffic - The Commission covenants that at all times it will establish and maintain schedules of tolls for traffic over the system so that net revenues will be sufficient to provide funds for the greater of:

a. 130% of annual debt service for such fiscal year on all applicable long-term indebtedness; or

b. 100% of maximum annual debt service on all applicable long-term indebtedness, plus amounts of required transfers to Reserve Maintenance Fund and amounts to restore deficiencies in the Debt Service Reserve Fund;

plus, in either such case, the amount of short-term indebtedness outstanding for more than a year. In addition, net revenue in excess of the sum of the amounts of (1) and (2) above, together with other revenues pledged to the payment of subordinated indebtedness, shall be sufficient to pay the annual debt service for any subordinated indebtedness.

8. Debt Service Coverage Ratio (DSCR) - The Commission shall continually monitor its outstanding debt for the purpose of determining the DSCR are at or above policy ratios of 2.0x for Senior Revenue Debt, 1.3x for Subordinate Revenue Debt and 1.2x for all toll revenue supported Debt.

Capitalized terms used on this page are defined in the Commission's restated indenture for its toll revenue bonds.

B. Measurements of Future Flexibility

The Commission's future flexibility is governed through the following Indenture covenants and policies:

1. Limitations on Issuance of Additional Bonds – The Commission agrees that it will not issue any additional bonds constituting long-term indebtedness unless the following conditions are met:

a. Historical pro forma debt service coverage ratio for the most recent fiscal year was not less than 1.75.

b. Net revenues of the Commission during the preceding fiscal year were at least 130% of the maximum annual debt service and the projected debt service coverage ratio is not less than 1.30.

2. Structure of Additional Bonds - The Commission will attempt to structure bond issues with call provisions consistent with current market conditions and with a goal to maximize flexibility with future refunding opportunities. The Commission may use premium or discount bonds to enhance the marketing of the bonds and will analyze the cost in relation to future refunding opportunities and impact on debt service. Finally, the Commission may consider using capitalized interest only if there are budgetary constraints that need to be addressed by phasing in debt service impact.

3. Uncommitted General Fund Balance – The Commission will adhere to its Liquidity Policy that requires minimum balances to be maintained at all times in the Reserve Maintenance Fund and General Reserve Fund. The Policy is specifically stated as follows:

"The Pennsylvania Turnpike Commission will budget and maintain a cumulative Fund Balance, including cash balances in both the Reserve Maintenance Fund and the General Fund, equal to the greater of either the annual debt service of bonds not secured by a Debt Service Reserve Fund or 10% of annual budgeted revenues."

F. Sale of Bonds:

The Commission shall choose the method of sale of its bonds (competitive versus negotiated) in light of financial and market conditions as well as considering an assessment of the different benefits associated with each method.

The Commission shall require its financial advisor in conjunction with the senior underwriter(s) to prepare a marketing plan that includes recommended distribution rules (that will enhance the marketing effort), descriptions of similar transactions in the market place and their rates of interest, prevailing market information and any other financial information deemed relevant.

G. <u>Derivative Products:</u>

The Commission will consider the use of derivative products in connection with the overall debt plan as a means of reducing debt service costs, increasing flexibility, hedging interest rate risk and accessing different investor markets. Additionally, the Commission will strive to only use derivative products after an analysis of the economic benefit of the interest rate swap market in relation to traditional financing methods has been undertaken and indicates a significant financial economic benefit without excessive or unacceptable levels of risk.

The Commission will comply with prevailing state law, if any, regarding the use of derivative products as well as certain disclosure requirements as specified by the Governmental Accounting Standard Board ("GASB"). The GASB recently issued GASB Technical Bulletin No. 2003-1 in June 2003 that requires a governmental entity to provide additional disclosure of derivatives not reported at fair value on the statement of net assets. The Commission has decided to incorporate the technical bulletin requirements into its audited financial statements ending fiscal year May 31, 2003.

The Commission has developed a separate Interest Rate Swap Policy. The policy addresses such issues as Scope and Authority, Conditions for the Use of Interest Rate Swaps, Interest Rate Swap Features, Evaluation, Management and Monitoring of Interest Rate Swap Risks and Selecting and Procuring Interest Rate Swaps. The Commission's policy and guidelines regarding Interest Rate Swaps are documented in the Commission's Interest Rate Swap Policy.

H. <u>Disclosure and Financial Reporting:</u>

The Commission will ensure that there is full and complete disclosure to rating agencies and other applicable regulatory bodies of all debt obligations. Offering documents for debt of the Commission shall also fully describe all outstanding debt as well all relevant information regarding the Commission and the particular financing transaction as required under federal securities law, subject to advice of bond counsel. The Commission will adhere to the guidelines for the financial reporting of debt obligations as recommended by the Government Accounting Standards Board ("GASB") or any other applicable regulatory agency.

PA TURNPIKE COMMISSION POLICY *This is a statement of official Pennsylvania Turnpike Policy*		**NUMBER**: 7.01 **APPROVAL DATE**: 08-16-2001 **EFFECTIVE DATE**: 08-31-2011 **REVISED DATE**: 02-05-2019
POLICY SUBJECT: Investment Policy and Guidelines	**RESPONSIBLE DEPARTMENT:** Finance and Administration	

A. PURPOSE:

To define guidelines and operational factors governing the investment of financial assets of the Pennsylvania Turnpike Commission.

B. INVESTMENT OBJECTIVES:

A. The safety and preservation of invested funds.
B. To maintain adequate liquidity to meet Commission cash flow requirements.
C. Maximize the Total Rate of Return.
D. Provide preference to Pennsylvania investments when the ROI is no less than equal to the non-Pennsylvania investment.

C. INVESTMENT GUIDELINES:

1. <u>Eligible Securities (to the extent permitted by any applicable indenture of trust)</u>

a. U. S. Treasury Bills, Notes, Bonds, Strips

b. 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 have a combined capital and surplus of at least $50,000,000.

c. 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.

d. Investment Agreements with a bank, a bank holding company or a financial institution that has outstanding unsecured obligations or uncollateralized long-term debt obligations rated in the "AA" category or better by at least two of the three rating agencies (Standard & Poors, Moody's and Fitch Investor Services).

e. Obligations of any of federal agencies which obligations are backed by the full faith and credit of the United States of America, including (but not limited to):

- Export-Import Bank
- Farm Credit System Financial Assistance Corporation
- Farmers Home Administration
- General Services Administration
- U.S. Maritime Administration
- Small Business Administration
- Government National Mortgage Association (GNMA)
- U.S. Dept. of Housing and Urban Development (PHAs)
- Federal Housing Administration

f. Senior debt obligations rated a minimum of "AA" by Standard & Poor's Ratings Group ("Standard & Poor's) and "Aa2" by Moody's Investors Service ("Moody's) issued by the following Government-Sponsored Enterprises (referred to as "Federal Agencies" throughout this policy):

- Federal Home Loan Bank
- Federal Farm Credit Bank
- Federal Home Loan Mortgage Corporation
- Federal National Mortgage Association

g. 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 Standard & Poor's.

h. Debt obligations of any state or local government entity, whether for itself, or as a conduit issuer, provided that the securities are rated in the Aa/AA category by at least two of Standard & Poor's, Moody's and Fitch Investors Service ("Fitch") and do not have a rating from any of Standard & Poor's, Moody's and Fitch below the Aa/AA category (without regard to subcategories of ratings), and provided that if a short-term rating is provided for the securities that they are rated in the top tier by at least two of the three of Standard & Poor's (A1 or better), Moody's (VMIG1 or P1), and Fitch (F1) and do not have a rating from any of the three rating agencies below such levels.

i. Commercial Paper rated by at least two of Standard and Poor's, Moody's and Fitch and not less than "A-1/P-1/F-1" by Standard & Poor's, Moody's and Fitch, respectively.

j. Corporate Bonds rated "Aa3/AA-" or better by Moody's and S&P.

k. Asset-Backed Securities rated "AAA" by Moody's and S&P.

l. Repurchase agreements with banks or primary government dealers reporting to the Federal Reserve Bank of New York ("Repurchasers"), collateralized by investments with a minimum 102% valuation in securities described above in paragraphs 1, 5 and 6.

m. Share or Certificates in any short-term investment fund that invests not less than 90% of its assets in obligations described in (1) or (2) above.

2. Diversification

a. No limitations are placed on Investments carrying the full faith and credit of the U.S. Government, including repurchase agreements collateralized by such investments.

b. 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.

c. Investments in Certificates of Deposit or Investment Agreements in total are limited to 30% of the Portfolio.

d. The combined exposure to Commercial Paper, Corporate Bonds and Asset-Backed Securities is limited to 35% of the total Portfolio.

e. Investments in any one single issuer (excluding U. S. Treasury and Federal Agency securities) are limited to 5% of the Portfolio.

3. Quality

All Investments shall be made with judgment and care, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of capital as well as the probable income to be derived.

All investment ratings shall be based on security ratings at the time of purchase. In the event of a downgrade in rating, the Portfolio Manager is to discuss such downgrade as soon as possible with the Chief Financial Officer or his designee with a recommendation on whether to sell or hold. The portfolio's average credit quality should be rated Aa3/AA- or better by Moody's / S&P.

4. <u>Maturity</u>

At the time of purchase, the maturity of each security in the Portfolio may not exceed five (5) years, taking into account any call, put, prepayment, or other features that may impact maturity. Similarly, the weighted average life of mortgages and asset-backed securities may not be more than 5 years.

5. <u>Turnover</u>

The Portfolio Managers shall follow a semi-active approach to investment management whereby investments are generally purchased with the intent of holding to maturity, but the Portfolio Managers have the flexibility to restructure and rebalance portfolio holdings to manage risk and take advantage of market opportunities.

D. PERFORMANCE BENCHMARK:

The Portfolio Manager shall work with the Chief Financial Officer or his designee to develop appropriate benchmarks for the various funds invested by the Commission, and shall compare the returns of the individual Portfolio segments to such benchmarks.

E. PERIODIC REVIEW:

The Investment Policy Committee of the Commission shall prepare an investment report to 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. Both Investment performance and conformity with this Investment Policy shall be reported.

F. AMENDMENTS:

This Investment Policy shall be reviewed annually by the Investment Policy Committee. Any amendments to the Investment Policy must be approved by the Commission.

This Policy Letter supersedes all previous Policy Letters on this subject.

PA TURNPIKE COMMISSION POLICY *This is a statement of official Pennsylvania Turnpike Policy*		**NUMBER**: 7.07 **APPROVAL DATE**: 05-07-2013 **EFFECTIVE DATE**: 05-07-2013 **REVISED DATE**: 10-02-2018
POLICY SUBJECT: **7.07 – Interest Rate Swap Management Policy**	**RESPONSIBLE DEPARTMENT:** **Finance and Administration Department**	

I. Introduction:

The purpose of the Interest Rate Swap Policy ("Policy") of the Pennsylvania Turnpike Commission ("Commission") is to establish 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" or "Agreements") incurred in connection with the incurrence of debt obligations as authorized by the Commission's Debt Policy (attached as Exhibit A). The Policy sets forth the manner of execution of Swaps and Agreements, provides for security and payment provisions, risk considerations, record keeping requirements and certain other relevant provisions as well as being responsive to (i) latest recommended practices of the Government Finance Officers Association regarding the contents of an interest rate swap policy, (ii) swap market practices and Protocols (as defined herein) in response to the Dodd-Frank Act (as defined herein), other applicable laws relating to Swaps and related rules or regulations, including, without limitation, rules and regulations of the Commodity Futures Trading Commission (the "CFTC"), the Securities and Exchange Commission (the "SEC") (i.e., relating to security-based swaps or mixed interest rate and security-based swaps) or the Municipal Securities Rulemaking Board (the "MSRB") and (iii) changes to, enhancements of, and deterioration in the swap market and its participants. The failure by the Commission to comply with any provision of this Policy shall not invalidate or impair any Swap or Agreement or the Commission's adherence to a swap industry Protocol *e.g.*, the International Swaps and Derivatives Association, Inc. ("ISDA") August 2012 Dodd-Frank Protocol, ISDA March 2013 Dodd-Frank Protocol, or similar agreements to which the Commission may adhere (including, without limitation, any bilateral agreement with a Swap counterparty).

II. Scope and Authority:

This Policy shall govern the Commission's use and management of all Swaps. This Policy describes the circumstances and methods by which Swaps will be evaluated, executed, monitored, used, administered, managed and terminated, the guidelines to be employed when Swaps are used, and parties responsible for carrying out this Policy. While adherence to this Policy is required in applicable circumstances, the Commission recognizes that changes in the capital markets, agency programs, swap and financial market regulations and other unforeseen circumstances may from time to time produce situations that are not covered by the Policy and will require modifications or exceptions to achieve policy goals.

The Chief Financial Officer and the Assistant Chief Financial Officer for Financial Management are the designated administrators of the Commission's Policy. The Chief Financial Officer shall have the day-to-day responsibility and authority for structuring, implementing, and managing Swaps.

The Commission shall be authorized to enter into Swap transactions only with qualified Swap counterparties. The Commission, in consultation with the Chief Financial Officer, shall select the counterparties, in adherence with the criteria set forth in the Policy.

III. Conditions for the Use of Swaps:

A. General Usage

Due to the effects of continual innovation in the financial markets, this Policy recognizes that the reasons for, or desirability of, the use of Swaps may change over time. The Commission will 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 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.

B. Maximum Notional Amount

The Commission will limit the total notional amount of outstanding Swaps based on criteria set forth in this Policy regarding the proper management of risks, calculation of termination exposure, and development of a contingency plan. In no event, however, shall the Commission's exposure to any counterparty rated A3/A- or lower exceed 50% of the Commission total debt.

C. Impact of use of Liquidity

The Commission shall consider the impact of any variable rate bonds issued in combination with a Swap on the availability and cost of liquidity support for other Commission variable rate programs.

D. Call Option Value Considerations

When considering the relative advantage of a Swap versus fixed rate bonds, the Commission will take into consideration the value of any call option on fixed rate bonds.

E. Qualified Hedges

The Commission understands that, if payments on and receipts from the Agreement are to be taken into account in computing the yield on the related bonds, the Agreement must meet the requirements for a "qualified hedge" under federal tax law (sometimes referred to as an "integrated" Swap). In this situation, the terms of the Agreement and the process for entering into the Agreement must be reviewed and approved in advance by legal counsel. The Commission will use best efforts to integrate all Agreements as appropriate. In cases where the Commission is considering non-integration, it will consult legal counsel and its advisors to understand any implications.

F. Evaluation of Swap Risks

Prior to the execution of any Swap transaction, the Chief Financial Officer, the Assistant Chief Financial Officer for Financial Management, and Commission's Swap Advisor and legal counsel shall evaluate the proposed transaction and report the findings. Such a review shall include the identification and evaluation of the proposed benefit and potential risks.

Evaluation Methodology:

The Commission will review the following areas of potential risk for new and existing Swaps:

Type of Risk	Description	Evaluation Methodology
Basis risk	The mismatch between actual variable-rate debt service or the index on variable-rate debt and variable-rate indices used to determine Swap payments.	The Commission will review historical trading differentials between the variable-rate bond rates or indices and the index/variable-rate payments of the Swaps.
Tax risk	The risk created by potential tax events that could affect Swap payments.	The Commission will review the tax events in proposed Swap agreements. The Commission will evaluate the impact of potential changes in tax law on Swaps indexed to taxable rates such as LIBOR or LIBOR alternatives (SOFR, Fed Funds, etc.).
Counterparty risk	The failure of the counterparty to make required payments.	The Commission will monitor exposure levels, ratings thresholds, and collateralization requirements.
Termination risk	The need to terminate the transaction in a market that dictates a termination payment by the issuer.	The Commission will compute its termination exposure for all existing and proposed Swaps at market value with appropriate sensitivity and historic scenario analysis within the context of the Commission's ratings and termination triggers.
Swap/Bond Maturity Mismatch / Rollover risk	The mismatch of the maturity of the Swap and the maturity of the underlying bonds.	The Commission will determine, in accordance with its Debt Policy, its capacity to issue variable rate bonds. The Commission will consider any mismatch between bonds and Swaps that may create rollover/termination risk if the Swap maturity exceeds the bond maturity, the maturity of the liquidity facility or underlying floating-rate debt such as FRNs. As appropriate, the Commission will determine, in accordance with its Debt Policy, the capacity to have unhedged variable-rate debt in cases where the maturity of the Swap may be shorter than the maturity of the bonds.
Liquidity risk/Market Access risk	The inability to procure, continue or renew a liquidity facility, or access the market (private or public) for variable-rate debt.	The Commission will evaluate the expected availability of liquidity support or market access for swapped variable-rate debt.
Credit risk	The occurrence of an event modifying the credit rating of the issuer or its counterparty.	The Commission will monitor the ratings of its counterparties and insurers.
Collateral Posting risk	The risk of having to post collateral if the market valuation of a Swap is negative to the Commission.	The Commission will evaluate potential posting requirements through sensitivity analyses under different market and rating scenarios.
Amortization Mismatch risk	The risk that the notional of a Swap does not match the outstanding principal of the related debt.	The Commission will use best efforts to ensure that the notional schedule of a Swap will match the anticipated principal schedule of bonds being hedged.

Interest Rate risk	The risk that movements in levels of interest rates adversely impact the Commission's Swaps.	The Commission will monitor its exposure to interest rates and the impact to cash flows (taking into account the underlying hedged debt) as well market valuations.

Prior to entering into any Protocol or similar agreement, the Chief Financial Officer, the Assistant Chief Financial Officer for Financial Management, and the Commission's Swap Advisor and legal counsel will evaluate prevailing market practices and requirements, legal requirements, the Protocol or similar agreement's impact on the efficiency of managing the Commission's Swaps, the Protocol or similar agreement's impact on communications with, and the receipt of information from, existing and potential Swap counterparties, and the extent of the need for, and the adequacy of, contractual or regulatory protections available to the Commission with respect to the Swaps to be covered by such Protocol or similar agreement.

IV. <u>Award:</u>

The Swap must contain financial terms and conditions that are fair and reasonable to be evidenced in a letter from a qualified independent Swap Advisor that satisfies the requirement for a "Qualified Independent Representative" under CFTC Regulation 23.450 implementing business conduct standards pursuant to the Dodd-Frank Act and any other applicable law relating to Swaps as described in Section VII.E. below.

V. <u>Swap Features:</u>

A. Swap Agreement

The Commission will use terms and conditions as set forth in the International Swap and Derivatives Association, Inc. ("ISDA") Master Agreement and may use the ISDA August 2012 Dodd-Frank Protocol/March 2013 Dodd-Frank Protocol or such other documentation as the Commission, in consultation with its legal counsel and Swap Advisor, deems necessary in connection with meeting market requirements related to the swap provisions of the Dodd-Frank Act or other applicable laws relating to Swaps. The Swap agreement between the Commission and each counterparty shall include payment, term, security, collateral, default, remedy, termination, and other terms, conditions, provisions and safeguards as the Commission, in consultation with its legal counsel and Swap Advisor, deems necessary or desirable.

Subject to the provisions contained herein, the terms of any Commission Swap agreement shall use the following guidelines:

(i) Downgrade provisions triggering termination shall in no event be worse than those affecting the counterparty.

(ii) Governing law for Swaps will be the State of New York. Issues relating to jurisdiction, venue, waiver of jury trial and sovereign immunity will be subject to prevailing law and approval of the Commonwealth Attorney General. Preference will be given to language providing that the counterparty will consent to jurisdiction in the Pennsylvania courts with respect to enforcement of the Agreement.

(iii) The specified indebtedness related to credit events in any Swap agreement should be narrowly defined and refer only to indebtedness of the Commission that could have a materially adverse effect on Commission's ability to perform its obligations under the Swap. Debt should typically only include obligations within the same lien as the Swap obligation.

(iv) Collateral thresholds for the Swap provider should be set on a sliding scale reflective of credit ratings. Collateral requirements should be established and based upon the credit ratings of the Swap provider or guarantor. The Trustee or an independent third party or the counterparty if so directed should hold collateral.

(v) Eligible collateral should generally be limited to Treasuries and obligations of Federal Agencies where the principal and interest are guaranteed by the United States. The market value of the collateral shall be marked to market no less than Bi-Monthly.

(vi) The Commission shall have the right to optionally terminate a swap agreement at "market," at any time over the term of the agreement.

(vii) Termination value should be set by "second method" and "market quotation" methodology, unless the Commission deems an alternate appropriate.

B. Swap Counterparties

1. 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, provided that careful analysis of the risks and legal structure of such entity is conducted. The nationally recognized rating agencies are Moody's Investors Services, Inc., Standard and Poor's Rating Services, and Fitch Ratings.

In addition to the rating criteria specified herein, the Commission will seek additional credit enhancement and safeguards in the form of:

Contingent credit support or enhancement;

i. Collateral consistent with the policies contained herein;
ii. Ratings downgrade triggers;
iii. Guaranty of parent, if any.

In addition, qualified Swap counterparties must have a demonstrated record of successfully executing and making markets for Swap transactions.

2. Counterparty Termination Exposure

In order to manage the Commission's counterparty credit risk, and credit exposure to any one counterparty, the Commission will seek to avoid excessive concentration of exposure to a single counterparty or guarantor by diversifying its counterparty exposure over time. Exposure to any counterparty will be measured based on the aggregate termination value of all Swaps entered into with the counterparty, as well as notional amount and sensitivity to movements in interest rates, SIFMA/LIBOR ratios, and in the case of option-based products, volatility. Termination value will be determined at least monthly, based on a mid-mark-to-market calculation of a Swap given the market conditions on the valuation date. Aggregate Swap termination value for each counterparty should take into account netting of offsetting transactions (i.e. fixed-to- floating and floating-to-fixed).

C. 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 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.

D. Security and Source of Repayment

The Commission may use the same security and source of repayment (pledged revenues) for Swaps as is used for the bonds that are hedged or carried 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 legal counsel regarding the legal requirements associated with making the payments under the Swap on a parity or non-parity basis with outstanding Commission debt.

E. Prohibited Agreements

The Commission will not use Agreements that:

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

VI. Managing Ongoing Swap Risks:

A. Amendments, Modifications, Novations and Terminations

To permit the Commission to minimize risks, burdens or costs associated with, and to have the flexibility to manage the continuing obligations under, each Swap, and any related agreement necessary for the consummation of the transactions contemplated by each Swap (in each case, including without limitation, managing actual or expected collateral requirements, protecting against the risk of counterparty default, minimizing the risk of variations or increases in financing costs and ensuring compliance with applicable law), the Commission may enter into amendments, modifications or novations of, or optionally terminate, in whole or in part, any Swap or any Agreement based on the written advice of a Swap Advisor, that (a) the amendment, modification, novation or optional termination is (i) justified by the corresponding benefit to the Commission, and (ii) commercially reasonable based on then-current market conditions, and (b) any payments made or to be made by the counterparty to the Commission, or by the Commission to the counterparty, are fair value for such amendment, modification, novation or optional termination, given the credit of the counterparty, the terms and conditions of the amendment, modification, novation or optional termination, and market conditions at the time of the amendment, modification, novation or optional termination.

B. Swap Portfolio Review

1. Annual Swap Report

The 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. This evaluation will include the following information:

- i. A description of all outstanding Swaps, including related bond series, types of Swaps, rates paid and received by Commission, existing notional amount, the average life and remaining term of each Swap agreement, and the current mark to market value of all outstanding Swaps.
- ii. The credit rating of each Swap counterparty, parent, guarantor, and credit enhancer insuring Swap payments, if any.
- iii. Actual collateral posting by Swap counterparty, if any, per Swap agreement and in total by Swap counterparty.
- iv. Information concerning any material event involving outstanding Swap agreements, including a default by a Swap counterparty, counterparty downgrade, or termination.
- v. An updated contingency plan to replace, or fund a termination payment in the event an outstanding Swap is terminated.
- vi. The status of any liquidity support used in connection with Swaps, including the remaining term and current fee, if any.

The Assistant Chief Financial Officer for Financial Management shall review the Policy at least annually, and suggest revisions or updates as deemed appropriate.

2. Contingency Plan

The Assistant Chief Financial Officer for Financial Management, in consultation with the Commission's Swap Advisor and legal counsel, shall compute the mark to market exposure of each of its Swaps and its total Swap mark to market exposure at least annually and prepare a contingency plan to either replace the Swaps or fund the termination payments, if any, in the event one or more outstanding Swaps are terminated. The Assistant Chief Financial Officer for Financial Management shall assess the ability to obtain replacement Swaps and identify revenue sources to fund potential termination payments. When appropriate, the Assistant Chief Financial Officer for Financial Management shall also evaluate the economic costs and benefits of incorporating a provision into the Swap agreement that will allow the Commission to make termination payments over time.

3. Termination Matrix

The Assistant Chief Financial Officer for Financial Management, in consultation with the Commission's Swap Advisor and legal counsel, shall prepare a matrix for each individual Swap and for all Swaps in the aggregate setting forth the termination costs under various interest rate scenarios.

C. Terminating Interest Rate Swaps

1. Optional Termination

The Commission, in consultation with its Swap Advisor and legal counsel, may optionally terminate a Swap subject to complying with the requirements set forth in Section VI.A. above.

2. Termination Events

In the event a Swap is terminated or subject to termination as a result of a termination event, such as a default or a decrease in credit rating of either the Commission or the counterparty, the Assistant Chief Financial Officer for Financial Management, in consultation with the Commission's Swap Advisor and legal counsel, will evaluate whether to obtain a replacement swap, or, depending on market value and the particular circumstances giving rise to the termination event, make or receive a termination payment subject to complying with the applicable requirements set forth in Section VI.A. above.

In the event the Commission is required to make a Swap termination payment, the Commission shall attempt to follow the process identified in its Swap contingency plan.

The determination of the value of any termination payment to be made or received by the Commission in connection with the mandatory termination of a Swap shall be reviewed and confirmed by the Commission's Swap Advisor.

D. Market Developments

The Commission, in consultation with its Swap Advisor, will monitor for market developments such as the replacement or discontinuation of indices that have been included in the Commission's Swaps, or other practices that may affect the Commission's Swaps and associated documentation. The Commission will use its best efforts to minimize the potential risks associated with such changes.

VII. <u>Selecting and Procuring Interest Rate Swaps:</u>

A. Review of Proposals

Recommendations or proposals by counterparties to enter into Swaps, or to modify, amend, novate or terminate an existing Swap, shall be evaluated by the Commission and its Swap Advisor. Unless otherwise advised by a Swap Advisor, or reasonably determined by the Commission to be unnecessary or redundant, the Commission shall not waive delivery of any disclosure or analysis required of a prospective swap counterparty by applicable law.

With respect to such recommendations or proposals, the following elements should be analyzed:

(i) The appropriateness of the Swap, or the modification, amendment, novation or optional termination of the existing Swap (for purposes hereof, the "transaction"), for the Commission based on the balance of risks and rewards presented by the proposed transaction, including a detailed description of the transactional structure, a description of the risks it presents, and risk mitigation measures;

(ii) The legal framework for the transaction within the context of Pennsylvania statutes, Commission ordinances, and relevant indenture and contractual requirements (including those contained in credit enhancement agreements), as well as any implications of the transaction under federal tax law;

(iii) Potential effects that the transaction may have on the credit ratings of any Commission obligations assigned by the rating agencies;

(iv) The potential impact of the transaction on any areas where the Commission's capacity is limited, now or in the future, including the use of variable-rate debt, bank liquidity facilities or letters of credit, and bond insurance;

(v) The ability of the Commission to handle any administrative burden that may be imposed by the transaction, including accounting and financial reporting requirements;

(vi) Information reporting requirements, if any; and

(vii) Other implications of the proposed transaction as warranted.

Approval to enter into a transaction will be subject to appropriate legal authorization. The authorization will include the appropriate Commission officials to whom relevant authority is delegated to carry out the necessary steps to enter into, monitor and administer the transaction, and the parameters within which their delegated authority may be exercised.

B. Financing Team

The Commission will use qualified legal counsel and retain the services of a qualified Swap Advisor for all Swaps. The Swap Advisor shall satisfy the requirements set forth below in VII.E. In addition, the Commission may retain the services of a qualified Financial Advisor for any Swap.

C. Underwriter Selection

In the event bonds are issued in connection with Swaps, the Commission will price the bonds according to the guidelines set forth in its Debt Policy.

D. Counterparty Selection

The Commission may use a competitive or a negotiated process to select a Swap counterparty and price a Swap as it believes business, market or competitive conditions justify such a process. In particular, the Commission may procure a Swap through a negotiated process if it makes a determination, in consultation with its Swap Advisor, that due to the Swap's characteristics (such as size, price transparency, liquidity, etc.), market conditions and other business considerations, a negotiated process would result in the most favorable pricing and execution.

E. Swap Advisor Selection Requirements and Ongoing Monitoring

Each Swap Advisor selected by the Commission shall meet the following requirements to be a Qualified Independent Representative pursuant to CFTC Regulation 23.450, subject to any amendments or interpretations by the CFTC and any comparable requirements set forth by other regulators, including, without limitation, the SEC or MSRB (collectively, the "Qualified Independent Representative Requirements"). The Commission's Swap Advisor shall:

(i) have sufficient knowledge to evaluate the Swap transaction and risks;

(ii) not be subject to a statutory disqualification (under the Commodity Exchange Act);

(iii) be independent of the Commission's relevant Swap counterparty within the meaning of CFTC Regulation 23.450(c);

(iv) undertake a duty to act in the best interests of the Commission;

(v) makes appropriate and timely disclosures to the Commission of compensation and all material conflicts of interest that would be sufficient to permit the Commission to assess the conflict and take steps to mitigate it;

(vi) evaluate the fair pricing and the appropriateness of the Swap transaction; and

(vii) be subject to restrictions on certain political contributions that may be imposed by the CFTC, the SEC, or a self-regulatory organization subject to jurisdiction of the CFTC or the SEC.

The Commission's staff shall undertake on-going monitoring of each Swap Advisor's performance consistent with the Qualified Independent Representative Requirements. The Commission's staff shall determine at least annually that each Swap Advisor to the Commission reasonably appears to satisfy the Qualified Independent Representative Requirements. The Commission's staff shall also determine prior to any Swap transaction that the particular Swap Advisor or Advisors retained by the Commission in connection with such Swap transaction reasonably appear to satisfy the Qualified Independent Representative Requirements. In making the determinations described above in this paragraph, the Commission's staff may take into account any report or other documentation provided by the Swap Advisor regarding its satisfaction of the requirements in clauses (i) through (vii) above which report and other documentation shall be reviewed by the Commission's staff in consultation with legal counsel.

In addition, the Commission shall require that each Swap Advisor to the Commission has written policies and procedures reasonably designed to ensure that such Swap Advisor satisfies the applicable requirements of the Qualified Independent Representative Requirements and that each Swap Advisor provide written representations to evidence compliance with such requirement.

In addition to the above, the Swap Advisor should be a registered Municipal Advisor with the MSRB and SEC.

VIII. 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 Government Accounting Standards Board, the CFTC or other applicable regulatory agencies.

IX. Record Keeping:

The Commission shall obtain and maintain a "legal entity identifier" or such other entity identifier as shall be required by any market regulators from time to time and shall maintain records for Swaps in accordance with legal requirements applicable from time to time including CFTC Final Rule *Swap Data Recordkeeping and Reporting Requirements: Pre-Enactment and Transition Swaps,* 77 Fed. Reg. 35200 (June 12, 2012) and CFTC Final Rule *Swap Data Recordkeeping and Reporting Requirements,* 77 Fed. Reg. 2136 (January 13, 2012). The Commission shall, at a minimum and subject to any future changes in law, keep full, complete and systematic records, together with all pertinent data and memoranda with respect to each Swap throughout the life of the Swap and for a period of at least five years following the final termination of the Swap in either electronic or paper form so long as the information is retrievable within five business days during the period during which it is required to be kept. The Commission shall maintain in such records any unique swap identifiers assigned by the Commission's Swap counterparties.

X. Dodd-Frank Act and Other Regulatory Developments:

The Chief Financial Officer and the Assistant Chief Financial Officer for Financial Management, in consultation with the Commission's Swap Advisor and legal counsel, shall monitor regulatory developments related to Swaps pursuant to the Dodd-Frank Act, other legislation relating to Swaps and related rules and regulations and market practices in response thereto. If determined to be necessary or advantageous in order for the Commission to maintain or improve communications with, or the receipt of information from, existing or potential Swap counterparties or to facilitate any Swap transactions, the Commission may enter into such Protocols or similar agreements relating to such regulatory developments.

Glossary of Terms

Asset/Liability Matching: Matching the term and amount of assets and liabilities in order to mitigate the impact of changes in interest rates.

Bid/Ask Spread: The difference between the bid price (at which a market maker is willing to buy) and the ask price (at which a market maker is willing to sell).

Call Option: The right to buy an underlying asset (e.g. a municipal bond) after a certain date and at a certain price. A call option is frequently embedded in a municipal bond, giving the issuer the right to buy, or redeem, the bonds at a certain price.

Collateral: Assets pledged to secure an obligation. The assets are potentially subject to seizure in the event of default.

Dodd-Frank Act: The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, as it may be amended.

Downgrade: A negative change in credit ratings.

Forward Starting Swap: Swaps that start at some time in the future. Used to lock-in current interest rates.

Hedge: A transaction that reduces the interest rate risk of an underlying security.

Interest Rate Swap: The exchange of interest rate payments between counterparties.

ISDA August 2012 Dodd-Frank Protocol: ISDA's Protocol published on August 13, 2012 intended to address the CFTC Final Rule, *Business Conduct Standards for Swap Dealers and Major Swap Participants With Counterparties*, 77 Fed. Reg. 9734 (February 17, 2012).

ISDA March 2013 Dodd-Frank Protocol: ISDA's Protocol published on March 22, 2013 intended to address the CFTC Final Rule, *Confirmation, Portfolio Reconciliation, Portfolio Compression, and Swap Trading Relationship Documentation Requirements for Swap Dealers and Major Swap Participants,* 77 Fed. Reg. 55904 (September 11, 2012); CFTC Final Rule, *End-User Exception to the Clearing Requirement for Swaps,* 77 Fed. Reg. 42559 (July 19, 2012); and CFTC Final Rule, *Clearing Requirement Determination Under Section 2(h) of the CEA,* 77 Fed. Reg. 74284 (December 13, 2012).

Liquidity Support: An agreement by a bank to make payment on a variable rate security to assure investors that the security can be sold.

LIBOR: The London Interbank Offer Rate. Used as an index to compute the variable rate on an interest rate swap.

Notional Amount: The amount used to determine the interest payments on a swap.

Offsetting Swap: Secondary interest rate Swap that is placed in an opposite direction from the primary.

interest rate Swap. The offsetting Swap is used to minimize Swap risks associated with the use of Swaps and potentially gain monetary value from the transaction.

Protocol: A multilateral contractual amendment mechanism that allows for various standardized amendments to be deemed to be made to the relevant covered swap agreements between any two adhering parties.

Termination Payment: A payment made by a counterparty that is required to terminate the Swap. The payment is commonly based on the market value of the Swap, which is computed using the rate on the initial Swap and the rate on a replacement Swap.

This Policy Letter supersedes all previous Policy Letters on this subject.