BOARD AGENDA SUMMARY SHEET

Committee or Board: Board	**Date:** March 8, 2019	**Board Meeting Date:** March 20, 2019

***For All Board Voting Items*:**

Title of Agenda Item: Approval of the Annual Report on the Board's Policy on Debt and Access to Credit Markets

Consent Agenda: ☐Yes ☒No **Accompanying Presentation:** ☒Yes ☐No

Recommendation from Committee: ☒N/A ☐ F&A; ☐ GP&P; ☐ Oversight & REV

LIPA Presenter: Kenneth Kane **PSEG Long Island Presenter:** N/A

***For Policy Reports Only*:**

Type of Policy / Report: ☒ Operating; ☐ Governance; ☐ Compliance; ☐ Mission

Date of Last Report: March 29, 2018 **Compliance Since Last Report:** ☒Yes ☐No

Proposed Changes to Policy: ☒ Yes ☐No

Requested Action:	The Board is requested to adopt a resolution: (i) approving the annual report for the Board Policy on Debt and Access to Credit Markets; (ii) finding that the Long Island Power Authority and its subsidiary, LIPA, have complied with the Policy; and (iii) approving certain amendments to the Policy.
Summary: **(include proposed amendments to Board Policies, if applicable)**	Staff recommends that, for the reasons set forth in the accompanying memorandum, the Board find that the Authority has complied with the Policy since the last annual review of the Policy. Staff proposes to amend the Policy to specify that the Chief Executive Officer report annually to the Board of Trustees on compliance with the terms and conditions of the Policy.

CFO Report

Debt and Access to Credit Markets

March 20, 2019

Long Island Power Authority

2018 in Review

- ✓ Achieved Debt and Access to the Credit Markets Policy metrics
- ✓ Issued $430 million fixed-rate, New Money Series 2018 Bonds at historically low credit spreads
- ✓ Replaced and reduced size of Revolving Credit Facility; new facility $200 Million
- ✓ Met financial goals of Three-Year-Rate Plan
- ✓ KPMG issued an *unqualified* audit opinion on 2018 Financial Statements

Rating Agencies Recognize LIPA's New Financial Plans

	Fitch Ratings	Moody's	Standard & Poor's
Rating	A-	A3	A-
Outlook	Stable	Positive[1]	Positive

"The rating affirmation considers LIPA's strong suite of cost recovery mechanisms that support a more resilient and predictable cash flow stream, improved financial, operating and customer satisfaction measures, LIPA's continued investment in operational and systems improvements and the strong economic profile of LIPA's service territory." - Moody's[1]

[1] *Moody's ratings outlook was revised to positive from stable on October 5, 2018*

Board Policy Establishes Clear Financial Goals

The Board Policy on Debt and Access to Capital provides guidance for LIPA's path to a stronger financial position, with the goal of reducing long-term cost for customers.

LIPA met or exceeded all of its financial goals for the Three-Year Rate Plan.

Five key financial planning metrics:

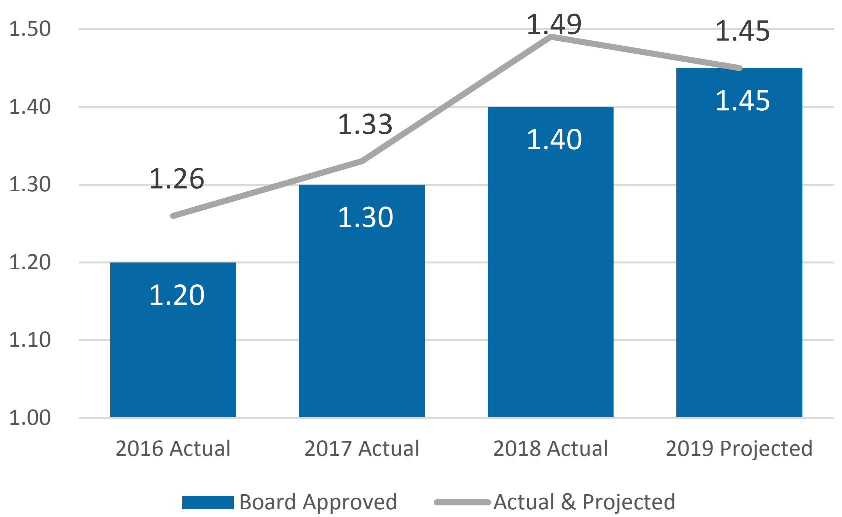
- Implementing financial plans that lead to bond ratings of at least A2/A/A from Moody's, S&P, and Fitch by the end of 2020;
- Achieving Fixed-Obligation Coverage Ratio (measure of cash flow available to pay debt and capital lease obligations) of 1.20x in 2016, 1.30x in 2017, 1.40x in 2018, and 1.45x in 2019 and beyond;
- Generating sufficient cash flow to fund no more than 64% of capital expenditures with debt;
- Maintaining cash on hand of at least $100 million in the Operating Fund, $150 million in the Rate Stabilization Fund, and available cash and available credit of at least 120 days of operating expenses; and
- Pre-funding Pension Fund Obligations, Other Post Employment Benefits and Nuclear Decommissioning Trust Fund obligations in a fiscally sound manner, as measured by an actuary.

LIPA's Fixed Obligation Coverage Has Steadily Improved

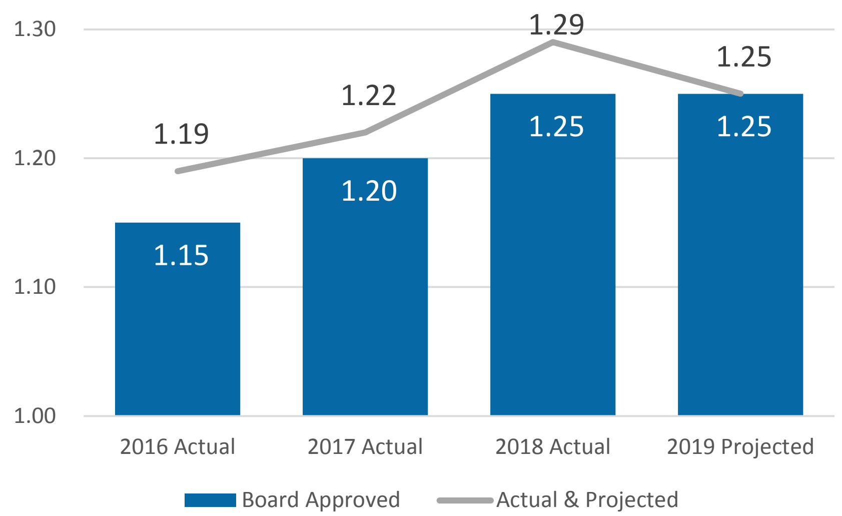
Board financial policies require LIPA to budget for certain levels of Fixed Obligation Coverage.

LIPA has exceeded the coverage requirement in 2016, 2017, and 2018 and has budgeted to achieve the required level in 2019.

LIPA Only Coverage



LIPA and UDSA Coverage



LIPA Capital Expenditure Funding

LIPA's Board policy reduced the percentage of capital expenditures funded by debt to 64% or less

($ in Thousands)		2018		2017		2016	
Capital Expenditures:		636,571		706,862		531,774	
Sources of Funds:							
	Debt Financing	**394,396**	**62%**	**389,080**	**55%**	**282,317**	**53%**
	FEMA Grants*	136,246	21%	177,898	25%	139,789	26%
	PAYGO	105,929	17%	139,885	20%	109,668	21%
	Total Sources	636,571		706,863		531,774	

** LIPA advances funding for FEMA projects, which are reimbursed at 90%.*

- 62% of capital plan funded by debt in 2018
- Gradually improve LIPA's debt-to-asset ratio toward 64%, consistent with other "A" rated major public power utilities
- Continued FEMA funding for storm hardening

Pension, OPEB and NDTF Funding

LIPA annually funds the PSEG and LIPA Pension and OPEB obligations and maintains required funding levels of the Nuclear Decommissioning Trust Fund in a fiscally sound manner, as measured, no less than every three years by an actuarial services firm

- *PSEG Long Island pension plan trust:* *Assets -* ***$213 million***
  Obligation – ***$322 million***

- *PSEG Long Island OPEB account:* *Assets -* ***$272 million***
  Obligations ***- $500 million***

- *Funded* ***$610,000*** *for LIPA to the NYS Employee Retirement System*

- *OPEB Trust for LIPA employees:* *Assets -* ***$ 19 million***
  Obligations - ***$ 21 million***

- *NMP2 Nuclear Decommissioning Trust Funds: Assets -* ***$125 million (funded)***

LIPA Liquidity Position December 31, 2018 and 2017

LIPA exceeded its minimum required 120 days cash and available credit for 2018, has strengthened and extended its access to short term capital

Liquidity Position

($ in Thousands)	December 31, 2018	Days Cash	December 31, 2017	Days Cash
Operating Liquidity				
Unrestricted cash and cash equivalents	$679,953		$633,531	
OPEB account cash, cash equivalents & investments	271,879		194,699	
Restricted cash - Working Capital Requirements	198,611		211,972	
Total operating liquidity	**$1,150,443**	**143**	**$1,040,202**	**133**
Available credit				
General Revenue Notes - Revolving Credit Facility	345,000		337,180	
General Revenue Commercial Paper	570,500		277,500	
Subordinated Revenue Commercial Paper			50,000	
Total available credit	915,500		664,680	
Total cash, cash equivalents, investments & available credit	**$2,065,945**	**258**	**$1,704,906**	**218**
Restricted cash				
FEMA - restricted	103,820		275,784	
UDSA	124,597		109,167	
Total restricted cash	$228,417		$384,951	

LIPA/UDSA Debt Outstanding December 31, 2018, 2017, and 2016

The Authority's consolidated debt at December 31, 2018 (unaudited), 2017, and 2016, including current maturities, is comprised of the following:

		2018	2017	2016
Long-term debt:				
General Revenue Bonds	$	3,597,465	3,214,214	3,356,972
Subordinated Revenue Bonds		—	—	—
UDSA Restructuring Bonds		4,139,593	4,262,396	3,965,529
Total long-term debt	$	7,737,058	7,476,610	7,322,501
Short-term debt:				
Revolving Credit Agreement		5,000	12,820	—
General Revenue Commercial Paper Notes		229,500	97,500	155,625
Subordinated Commercial Paper Notes		—	250,000	250,000
Total short-term debt	$	234,500	360,320	405,625
Total debt	$	7,971,558	7,836,930	7,728,126

- LIPA's debt has remained relatively stable for the past three years, while LIPA has funded over $1.5 billion of capital investment to improve the reliability and resiliency of the electric grid.
- Through UDSA the Authority has taken advantage of market opportunities to achieve a lower cost of funds through "AAA" credit ratings generating present value savings for customers of $492 million.

Debt-to-Asset Ratio

LIPA's Debt-to-Asset ratio continues to decline pursuant to Board Policy

	Actual			Projected			
	2016	2017	2018	2019	2020	2021	2022
Long-term debt (including Capital Leases):							
Gross Debt	7,322,501	7,476,610	7,737,058	8,443,687	8,769,511	8,914,215	8,949,346
Generation and Transmission assets under lease	2,217,243	2,020,876	1,871,231	1,838,190	1,671,107	1,503,841	1,326,262
Restricted Cash	(88,572)	(109,167)	(124,597)	(109,167)	(109,167)	(109,167)	(109,167)
Total Long-term debt	$ 9,451,172	9,388,319	9,483,692	10,172,710	10,331,451	10,308,889	10,166,441
Assets plus Working Capital:							
Net Plant	$ 7,768,551	8,088,014	8,383,338	9,708,829	10,235,304	10,570,897	10,834,538
Net Working Capital	1,226,799	1,219,366	1,414,557	1,219,366	1,219,366	1,219,366	1,219,366
Net Assets	$ 8,995,350	9,307,380	9,797,895	10,928,195	11,454,670	11,790,263	12,053,904
Total Debt to Asset Ratio (%)	105.1%	100.9%	96.8%	93.1%	90.2%	87.4%	84.3%

LIPA
Long Island Power Authority

FOR CONSIDERATION
March 20, 2019

TO: The Board of Trustees

FROM: Thomas Falcone

SUBJECT: Approval of the Annual Report to the Board on the Board Policy on Debt and Access to the Credit Markets

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Requested Action

The Board of Trustees of the Long Island Power Authority (the "Board") is requested to adopt a resolution: (i) finding that the Long Island Power Authority and its subsidiary, LIPA (collectively the "Authority" or "LIPA") have complied with the Board Policy on Debt and Access to Credit Markets (the "Policy"); (ii) approving the annual report for the Policy; and (iii) approving certain amendments to the Policy, which resolution is attached hereto as **Exhibit "A"**.

Background

By Resolution No. 1319, dated September 21, 2016, the Board adopted the Policy with the purpose of serving the long-term interests of the Authority's customers by adopting sound financial plans in each year. Sound financial plans ensure the ready access to borrowing on reasonable terms necessary to fund the infrastructure investments that maintain the reliability and resiliency of the Long Island electric system. Such financial plans contemplate prudent levels of borrowing that will accommodate efficient access to the capital markets and thereby minimize the long-term cost of providing electric service to our customer-owners. The Policy was last amended by the Board by Resolution No. 1354, dated March 29, 2017.

Compliance with the Policy

Staff recommends that, for the reasons set forth below, the Board find that the Authority has complied with the Policy for the period since the last annual review. The Policy requires:

"Fixed obligation coverage ratios on Authority-issued debt and on the combination of Authority-issued and Utility Debt Securitization Authority-issued debt of no less than:

	2016	**2017**	**2018**	**2019**
LIPA	1.20x	1.30x	1.40x	1.45x
LIPA and UDSA	1.15x	1.20x	1.25x	1.25x"

- LIPA has exceeded the coverage requirements in 2016, 2017, and 2018 and has budgeted to achieve the required level in 2019. Specifically, the actual coverage ratios for these years were:

	2016	2017	2018	Budget 2019
LIPA	1.26x	1.33x	1.49x	1.45x
LIPA and UDSA	1.19x	1.22x	1.29x	1.25x

"Generating sufficient cash flow from current revenues to maintain the issuance of new debt as a percentage of capital spending at 64% or lower throughout the planning period."

- New debt as a percentage of capital spending was 62% for 2018 and is projected to remain below 64% through 2019.

"Maintaining cash on hand of at least $100 million in the Operating Fund and $150 million in the Rate Stabilization Fund and overall cash on hand and available credit of at least 120 days of operating expenses."

- December 31, 2018 cash balances for the Operating Fund and the Rate Stabilization fund were $210 million and $155 million, respectively.

- Overall cash on hand and available credit was 258 days of operating expenses as of December 31, 2018.

"Pre-funding of Pension Fund Obligations, Other Post-Employment Benefits and Nuclear Decommissioning Trust Fund Obligations in a fiscally sound manner, as measured no less than every third year by an actuarial services firm." As of December 31, 2018:

- The funding levels of each of the funds has been reviewed by an actuarial services firm within the last three years and LIPA has made actuarially sound contributions to each fund, as described below, to fully fund the obligations over time.

- The PSEG Long Island pension plan trust account had assets valued at $213 million and benefit obligations of $322 million resulting in an unfunded contractual liability for the Authority of $109 million. The Authority funded a $40 million contribution to this plan during 2018.[1]

- LIPA's OPEB Account to prefund the OPEB benefits of PSEG Long Island employees had assets valued at $272 million compared to a benefit obligation of $500 million resulting in an unfunded contractual liability of $228 million. The Authority funded $87 million to this account in 2018.

- The OPEB Trust for LIPA employees had assets valued at $19 million and benefit obligations of $21 million resulting in an unfunded liability of $2 million. The Authority funded approximately $2 million to this trust in 2018.

[1] The PSEG Long Island employee pension and OPEB obligations are legal obligations of PSEG Long Island, and the employees covered by these plans are PSEG Long Island employees. The cost to employ the workforce of PSEG Long Island is a pass-through expenditure and a contractual liability of the Authority.

- The NMP2 Nuclear Decommissioning Trust Funds had assets of $125 million. The trust is sufficiently funded to meet the decommissioning obligations and requirements as they come due, with modest additional contributions averaging approximately $1 million per year. The Authority recently invested $1 million in the fund representing the 2018 contribution.

Annual Review of the Policy

Staff proposes to amend the Policy to specify that the Chief Executive Officer will report annually to the Board of Trustees on compliance with the terms and conditions of the Policy. The proposed amendment is set forth in **Exhibit "B"**.

Recommendation

Based upon the foregoing, I recommend approval of the above requested action by adoption of a resolution in the form attached hereto.

Attachments

Exhibit "A" Resolution
Exhibit "B" Policy (redline)
Exhibit "C" Policy (clean)

<u>Exhibit A</u>

RESOLUTION APPROVING THE REPORT TO THE BOARD OF TRUSTEES ON THE BOARD POLICY ON DEBT AND ACCESS TO THE CREDIT MARKETS

WHEREAS, the Board Policy on Debt and Access to the Credit Markets (the "Policy") was originally approved by the Board of Trustees by Resolution No. 1319, dated September 21, 2016; and

WHEREAS, the Board has received the annual Staff report on compliance with the Policy; and

WHEREAS, the Board has reviewed the Policy and approves the changes to the Policy as recommended by Staff.

NOW, THEREFORE, BE IT RESOLVED, that consistent with the accompanying memorandum, the Board hereby finds that the Authority has complied with the Policy for the period since the adoption of the Policy, approves the annual report to the Board, and approves updates to the Policy, as recommended herein.

Dated: March 20, 2019

EXHIBIT B

Board Policy: **Debt and Access to the Credit Markets**

Policy Type: **Operating Policies**
Monitored by: **Finance and Audit Committee**

Board Resolution: **#1319, approved September 21, 2016**
#1354, amended March 29, 2017
[xxxx], amended March 20, 2019

Board Policy on Debt and Access to the Credit Markets

It is the policy of the Board of Trustees of the Long Island Power Authority to serve the long-term interests of the Authority's customers by adopting sound financial plans in each year. Sound financial plans ensure the ready access to borrowing on reasonable terms necessary to fund the infrastructure investments that maintain the reliability and resiliency of the Long Island electric system. Such financial plans contemplate prudent levels of borrowing that will accommodate efficient access to the capital markets and thereby minimize the long-term cost of providing electric service to our customer-owners.

The Board will achieve these objectives by adopting annual budgets and financial plans that support bond ratings of at least A2/A from the several rating agencies by the end of 2021. Such budgets and financial plans include:

- fixed obligation coverage ratios on Authority-issued debt and on the combination of Authority-issued and Utility Debt Securitization Authority-issued debt of no less than:

	2016	**2017**	**2018**	**2019**
LIPA	1.20x	1.30x	1.40x	1.45x
LIPA and UDSA	1.15x	1.20x	1.25x	1.25x

- generating sufficient cash flow from current revenues to maintain the issuance of new debt as a percentage of capital spending at 64% or lower throughout the planning period;
- maintaining cash on hand of at least $100 million in the Operating Fund and $150 million in the Rate Stabilization Fund and overall cash on hand and available credit of at least 120 days of operating expenses;
- Pre-funding of Pension Fund Obligations, Other Post-Employment Benefits and Nuclear Decommissioning Trust Fund Obligations in a fiscally sound manner, as measured no less than every third year by an actuarial services firm.

The Chief Executive –Officer shall report annually to the Board on compliance with the key provisions of this Policy.

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Appendix: Methodology to Calculate Financial Metrics

~~**Exhibit C**~~

Board Policy on Debt and Access to the Credit Markets
Appendix: Methodology to Calculate Financial Metrics

The Board Policy on Debt and Access to the Credit Markets references three quantitative financial ratios: Fixed Obligation Coverage; Days Cash on Hand; and the Percentage of Capital Spending Funded by Debt. This Appendix describes the calculation of each of these ratios as used in the Board Policy.

Fixed Obligation Coverage is the ratio of funds available to pay LIPA's fixed obligations (annual debt service plus capital lease payments) as compared to those obligations. This ratio therefore measures the resources available from operations to make fixed scheduled payments. If a utility has a fixed obligation coverage ratio of 1.0x, they have exactly enough funds from ongoing operations to pay all operating expenses and make such fixed payments, leaving no such funds available for capital investments. Even a small disruption to operations such as higher than anticipated expenses or a storm may therefore endanger debt service and other fixed payments. A coverage ratio of 1.25x means the utility has enough funds to pay operating expenses and fixed obligation costs, plus a margin of 25% over and above the fixed obligation costs. Higher coverage ratios reflect a greater likelihood that such fixed payments will be paid and therefore represents less financial risk to bond holders. As such, higher coverage ratios typically merit higher bond ratings and correspondingly lower borrowing costs on debt and letters of credit.

Coverage is different from most financial statistics, however, in that coverage is not actually paid to bond holders or other outside parties. The funds in excess of those actually required to pay operating expenses and fixed payments remain available to LIPA to fund new infrastructure investments in lieu of issuing debt. As a result, higher coverage provides a double benefit to LIPA's customer-owners: it lowers both the cost of interest on bonds and the amount of bonds LIPA issues to build infrastructure.

LIPA's fixed obligation coverage calculation, detailed below, is intended to be similar to the way that rating agencies and investors calculate coverage and differs from the coverage formula used in LIPA's bond covenants[1]. The approach simplifies the review of sources and uses of cash flow and adopts most of the GAAP[2] conventions for measuring revenues and expenses, except in a few key areas highlighted below where GAAP figures are materially different than cash flow.

[1] LIPA's bond covenants calculate coverage by treating tax payments and capital lease obligations as funds available to pay debt service obligations.
[2] Generally Accepted Accounting Principles, as established by the Government Accounting Standards Board (GASB).

The table below summarizes LIPA's fixed obligation coverage calculation:

+	Operating Revenue	Note 1
+	Grant Income	Note 2
+	Investment and Miscellaneous Income (Net)	Note 3
+	Suffolk Property Tax Settlement Charges	Note 4
+	Visual Benefits Assessment Charges	Note 4
=	**Total Revenue and Income**	Subtotal 1
+	Total Operating Expenses	Note 5
−	Depreciation and Amortization	Note 6
−	OPEB GAAP Operating Expense	Note 7
+	Other Interest Expense	Note 8
=	**Total Deductions from Revenue and Income**	Subtotal 2
+	Total Revenue and Income	Subtotal 1
−	Total Deductions	Subtotal 2
+	Annual Capital Lease Payments	Note 9
=	**Funds Available for LIPA + UDSA Coverage**	Subtotal 3
+	Funds Available for LIPA + UDSA Coverage	Subtotal 3
−	UDSA Debt Service	Note 10
=	**Funds Available for LIPA Fixed Obligations**	Subtotal 4
+	LIPA Debt Service	Note 10
+	Annual Capital Lease Payments	Note 9
=	**LIPA Fixed Obligations**	Subtotal 5
+	LIPA Fixed Obligations	Subtotal 5
+	UDSA Debt Service	Note 10
=	**LIPA + UDSA Fixed Obligations**	Subtotal 6
+	Funds Available for LIPA Fixed Obligations	Subtotal 4
/	LIPA Fixed Obligations	Subtotal 5
=	**LIPA Coverage Ratio**	
+	Funds Available for LIPA + UDSA Obligation	Subtotal 3
/	LIPA + UDSA Fixed Obligations	Subtotal 6
=	**LIPA + UDSA Coverage Ratio**	

The funds available to pay fixed obligations are roughly calculated as revenue plus other sources of income minus operating expenses, excluding non-cash expenses such as depreciation and amortization and OPEBs, minus other interest expense. The actual results for each year are included in the footnotes to the Authority's audited financial statements. The below notes describe each line item in the fixed obligation coverage calculation.

1. *Operating Revenue* can be found on the Authority's Income Statement.

2. *Grant Income* includes money received from state and federal agencies to cover specified program expenditures, such as the Regional Greenhouse Gas Initiative (RGGI) and FEMA reimbursements for storm recovery. Grant income is generally recognized in the period it is received, except for the FEMA storm hardening grant, which is being recognized over the expected life of the assets being constructed in amounts equal to depreciation expense in each year. The amount of Grant Income is reported on the Authority's Income Statement.

3. *Investment Income and Other Miscellaneous Income (Net)* includes the amounts reflected on the Income Statement for investment income and the net amount of the miscellaneous other income and deductions as reported on the Income Statement.

4. *Suffolk Property Tax Settlement and Visual Benefits Assessment* are two large regulatory assets that are being repaid by certain customers in their electric bills over time. The customers repay both principal and interest on related debt obligations. For GAAP purposes, the interest payments are included in Investment Income while the repayment of principal is not reflected in Operating Revenue in the year received (it was previously recognized when the regulatory assets were established). For coverage purposes, the cash receipts related to principal payments shown on the Authority's Cash Flow Statement are available to pay the related debt payments.

5. *Total Operating Expenses* can be found on the Authority's Income Statement and conform to GAAP.

6. *Depreciation and Amortization* are deducted from Operating Expenses for the coverage calculation. Instead of using accounting allocations for the recovery of capital investments and regulatory assets, the coverage calculation recognizes that these costs are to be repaid to bondholders through the scheduled repayment of principal on bonds. Therefore, these amounts are reflected in Debt Service in the coverage calculation. Depreciation and Amortization can be found on the Authority's Income Statement. LIPA's key components of Depreciation and Amortization include:
    a. Depreciation of Utility Plant and Equipment
    b. Amortization of the Acquisition Adjustment paid for the purchase of the Long Island Lighting Company in 1998
    c. Amortization of regulatory assets established by the Board for specific obligations to be funded by ratepayers, which are primarily the long-term obligation to fund pensions and benefits for employees who provided services to LIPA under the

expired Management Services Agreement (MSA) between LIPA and National Grid (the former service provider).

7. *OPEB GAAP Operating Expense.* Due to the transition to a new service provider in 2014, LIPA has few active retirees collecting Other Post-Employment Benefits (OPEBs). The cash pay-as-you-go expense for such benefits is therefore small relative to the GAAP expense for accruing a liability to make such payments to retirees in the future. The difference between these two amounts can be found on the Authority's Cash Flow Statement. In 2014, LIPA adopted a funding plan consistent with actuarially sound principles to pre-fund future OPEB benefit expenses for employees currently working for the Authority and PSEG Long Island (the service provider). This pre-funding is deposited into a separately segregated OPEB Account. As the accrual GAAP Operating Expense for OPEBs in any year is significantly higher than cash pay-as-you-go expense, the difference between the GAAP and cash expense is available if needed to pay fixed obligations in the year. Furthermore, from a legal perspective the Authority's annual pre-funding deposits into the OPEB Account to fund future benefits are also first available to make fixed obligation payments. Additionally, the Board authorized that, should the need arise, the OPEB Account balance is available to make fixed obligation payments, acting in effect as a reserve fund. LIPA's ratemaking model therefore recognizes the availability of these funds to make fixed obligation payments.[3]

8. *Other Interest Expense* represents costs that are reported as interest expense on the income statement but are not part of Debt Service. The largest component of Other Interest Expense is interest rate swap payments, which are generally subordinate to bond payments. Additional such expense includes interest on customer deposits and bank fees. Other Interest Expense is not Debt Service, does not require coverage, and is therefore treated the same as Operating Expenses in the calculation of Funds Available for Debt Service. The amount of Other Interest Expense is shown on the Authority's Cash Flow Statement.

9. *Annual Capital Lease Payments.* Rating agencies treat capital lease payments as a fixed obligation that operates like debt. LIPA has substantial capital leases related to its procurement of power supplies for generating facilities and transmission cables. According to GASB, long-term leases that meet certain criteria must be recorded on the Authority's financial statements as capitalized leases. To recognize capital lease obligations in the calculation of coverage, the rating agencies add the annual capital lease obligation (imputed repayment of principal and interest) to both the numerator and the denominator of the fixed obligation coverage ratio. LIPA's Annual Capital Lease Payments are shown in the footnotes to its audited financial statements.

[3] LIPA originally contemplated a similar adjustment for the pension expense related to PSEG Long Island employees. The difference between GAAP expense and ERISA cash funding for pensions has narrowed and so this is no longer a material adjustment to the funds available to pay fixed obligations.

10. *Debt Service* consists of the payment of principal and interest on LIPA's long term and short term bonds. The debt service payment schedule on long term bonds is established when the bonds are issued and typically includes semi-annual payment of interest. Short term debt typically includes monthly or quarterly payments of interest. Repayment of principal on bonds can occur under a number of circumstances that are relevant to the determination of debt service obligations in any given year.

    Debt that is retired per schedule is considered a debt service obligation and is included in the debt service payments on that scheduled date. Debt is sometimes refinanced through the issuance of new debt, typically to obtain a lower cost. Debt which is refinanced before its scheduled date is excluded from debt service requirements, and the scheduled repayments of the new debt takes the place of the scheduled repayment of the retired debt. Short term debt can also be refunded or rolled over through the issuance of new debt. This happens most frequently when an existing short term arrangement expires or is replaced by a new line of credit on more favorable terms. In such cases, the roll-over of principal is not considered to be a debt service obligation at that time, as this debt was always expected to be paid by the proceeds of the roll-over and not by revenues. The amount of Debt Service payments can be found on the Authority's Cash Flow Statement.

Minimum Days Cash on Hand must be at least 120 days

Days Cash on Hand is the ratio of the total cash and credit available divided by the Authority's average daily operating expenses. Days Cash on Hand measures the Authority's ability to sustain its operations if revenues are delayed, reduced or interrupted for any reason. Available cash consists of cash reported on the balance sheet and includes both unrestricted cash and funds that are held in a restricted account dedicated to pre-funding PSEG Long Island's operating and capital expenditures, in accordance with the terms of the Amended and Restated Operations Services Agreement. Available credit includes multiple sources such as commercial paper, letters and lines of credit, and general revenue notes. Average daily expenditure is calculated by taking LIPA's annual approved budgeted revenues minus depreciation, amortization, and interest expense and dividing the net value by 365 days.

Percent of Capital Spending Funded by Debt is calculated as the ratio of new money debt issued in the year divided by total approved capital spending. It is typically calculated both including and excluding funding derived from grants, such as FEMA. The capital spending in any year is directly observable from LIPA's financial documents and represents the net increase in fixed assets (plant in service plus investments in related utility assets like circuits or transformers). Similarly, LIPA's debt issuances are categorized as either refinancing of existing debt or new money debt and are clearly identified as to the general usage of the funds. Capital expenditures financed using short term debt or available cash that is later replenished by long term bonds are excluded from the calculation. Given the variability in capital expense from year to year, it is prudent to target a revenue funding percentage over a multi-year planning period as opposed to implementing a strict year-by-year percentage target.

Percent of Capital Spending Funded by Debt not to exceed 64%

EXHIBIT C

Board Policy: **Debt and Access to the Credit Markets**

Policy Type: **Operating Policies**
Monitored by: **Finance and Audit Committee**

Board Resolution: **#1319, approved September 21, 2016**
#1354, amended March 29, 2017
[xxxx], amended March 20, 2019

Board Policy on Debt and Access to the Credit Markets

It is the policy of the Board of Trustees of the Long Island Power Authority to serve the long-term interests of the Authority's customers by adopting sound financial plans in each year. Sound financial plans ensure the ready access to borrowing on reasonable terms necessary to fund the infrastructure investments that maintain the reliability and resiliency of the Long Island electric system. Such financial plans contemplate prudent levels of borrowing that will accommodate efficient access to the capital markets and thereby minimize the long-term cost of providing electric service to our customer-owners.

The Board will achieve these objectives by adopting annual budgets and financial plans that support bond ratings of at least A2/A from the several rating agencies by the end of 2021. Such budgets and financial plans include:

- fixed obligation coverage ratios on Authority-issued debt and on the combination of Authority-issued and Utility Debt Securitization Authority-issued debt of no less than:

	2016	2017	2018	2019
LIPA	1.20x	1.30x	1.40x	1.45x
LIPA and UDSA	1.15x	1.20x	1.25x	1.25x

- generating sufficient cash flow from current revenues to maintain the issuance of new debt as a percentage of capital spending at 64% or lower throughout the planning period;
- maintaining cash on hand of at least $100 million in the Operating Fund and $150 million in the Rate Stabilization Fund and overall cash on hand and available credit of at least 120 days of operating expenses;
- Pre-funding of Pension Fund Obligations, Other Post-Employment Benefits and Nuclear Decommissioning Trust Fund Obligations in a fiscally sound manner, as measured no less than every third year by an actuarial services firm.

The Chief Executive Officer shall report annually to the Board on compliance with the key provisions of this Policy.

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Appendix: Methodology to Calculate Financial Metrics

Board Policy on Debt and Access to the Credit Markets
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The Board Policy on Debt and Access to the Credit Markets references three quantitative financial ratios: Fixed Obligation Coverage; Days Cash on Hand; and the Percentage of Capital Spending Funded by Debt. This Appendix describes the calculation of each of these ratios as used in the Board Policy.

Fixed Obligation Coverage is the ratio of funds available to pay LIPA's fixed obligations (annual debt service plus capital lease payments) as compared to those obligations. This ratio therefore measures the resources available from operations to make fixed scheduled payments. If a utility has a fixed obligation coverage ratio of 1.0x, they have exactly enough funds from ongoing operations to pay all operating expenses and make such fixed payments, leaving no such funds available for capital investments. Even a small disruption to operations such as higher than anticipated expenses or a storm may therefore endanger debt service and other fixed payments. A coverage ratio of 1.25x means the utility has enough funds to pay operating expenses and fixed obligation costs, plus a margin of 25% over and above the fixed obligation costs. Higher coverage ratios reflect a greater likelihood that such fixed payments will be paid and therefore represents less financial risk to bond holders. As such, higher coverage ratios typically merit higher bond ratings and correspondingly lower borrowing costs on debt and letters of credit.

Coverage is different from most financial statistics, however, in that coverage is not actually paid to bond holders or other outside parties. The funds in excess of those actually required to pay operating expenses and fixed payments remain available to LIPA to fund new infrastructure investments in lieu of issuing debt. As a result, higher coverage provides a double benefit to LIPA's customer-owners: it lowers both the cost of interest on bonds and the amount of bonds LIPA issues to build infrastructure.

LIPA's fixed obligation coverage calculation, detailed below, is intended to be similar to the way that rating agencies and investors calculate coverage and differs from the coverage formula used in LIPA's bond covenants[1]. The approach simplifies the review of sources and uses of cash flow and adopts most of the GAAP[2] conventions for measuring revenues and expenses, except in a few key areas highlighted below where GAAP figures are materially different than cash flow.

[1] LIPA's bond covenants calculate coverage by treating tax payments and capital lease obligations as funds available to pay debt service obligations.
[2] Generally Accepted Accounting Principles, as established by the Government Accounting Standards Board (GASB).

The table below summarizes LIPA's fixed obligation coverage calculation:

+	Operating Revenue	Note 1
+	Grant Income	Note 2
+	Investment and Miscellaneous Income (Net)	Note 3
+	Suffolk Property Tax Settlement Charges	Note 4
+	Visual Benefits Assessment Charges	Note 4
=	**Total Revenue and Income**	Subtotal 1
+	Total Operating Expenses	Note 5
−	Depreciation and Amortization	Note 6
−	OPEB GAAP Operating Expense	Note 7
+	Other Interest Expense	Note 8
=	**Total Deductions from Revenue and Income**	Subtotal 2
+	Total Revenue and Income	Subtotal 1
−	Total Deductions	Subtotal 2
+	Annual Capital Lease Payments	Note 9
=	**Funds Available for LIPA + UDSA Coverage**	Subtotal 3
+	Funds Available for LIPA + UDSA Coverage	Subtotal 3
−	UDSA Debt Service	Note 10
=	**Funds Available for LIPA Fixed Obligations**	Subtotal 4
+	LIPA Debt Service	Note 10
+	Annual Capital Lease Payments	Note 9
=	**LIPA Fixed Obligations**	Subtotal 5
+	LIPA Fixed Obligations	Subtotal 5
+	UDSA Debt Service	Note 10
=	**LIPA + UDSA Fixed Obligations**	Subtotal 6
+	Funds Available for LIPA Fixed Obligations	Subtotal 4
/	LIPA Fixed Obligations	Subtotal 5
=	**LIPA Coverage Ratio**	
+	Funds Available for LIPA + UDSA Obligation	Subtotal 3
/	LIPA + UDSA Fixed Obligations	Subtotal 6
=	**LIPA + UDSA Coverage Ratio**	

The funds available to pay fixed obligations are roughly calculated as revenue plus other sources of income minus operating expenses, excluding non-cash expenses such as depreciation and amortization and OPEBs, minus other interest expense. The actual results for each year are included in the footnotes to the Authority's audited financial statements. The below notes describe each line item in the fixed obligation coverage calculation.

1. *Operating Revenue* can be found on the Authority's Income Statement.

2. *Grant Income* includes money received from state and federal agencies to cover specified program expenditures, such as the Regional Greenhouse Gas Initiative (RGGI) and FEMA reimbursements for storm recovery. Grant income is generally recognized in the period it is received, except for the FEMA storm hardening grant, which is being recognized over the expected life of the assets being constructed in amounts equal to depreciation expense in each year. The amount of Grant Income is reported on the Authority's Income Statement.

3. *Investment Income and Other Miscellaneous Income (Net)* includes the amounts reflected on the Income Statement for investment income and the net amount of the miscellaneous other income and deductions as reported on the Income Statement.

4. *Suffolk Property Tax Settlement and Visual Benefits Assessment* are two large regulatory assets that are being repaid by certain customers in their electric bills over time. The customers repay both principal and interest on related debt obligations. For GAAP purposes, the interest payments are included in Investment Income while the repayment of principal is not reflected in Operating Revenue in the year received (it was previously recognized when the regulatory assets were established). For coverage purposes, the cash receipts related to principal payments shown on the Authority's Cash Flow Statement are available to pay the related debt payments.

5. *Total Operating Expenses* can be found on the Authority's Income Statement and conform to GAAP.

6. *Depreciation and Amortization* are deducted from Operating Expenses for the coverage calculation. Instead of using accounting allocations for the recovery of capital investments and regulatory assets, the coverage calculation recognizes that these costs are to be repaid to bondholders through the scheduled repayment of principal on bonds. Therefore, these amounts are reflected in Debt Service in the coverage calculation. Depreciation and Amortization can be found on the Authority's Income Statement. LIPA's key components of Depreciation and Amortization include:
    a. Depreciation of Utility Plant and Equipment
    b. Amortization of the Acquisition Adjustment paid for the purchase of the Long Island Lighting Company in 1998
    c. Amortization of regulatory assets established by the Board for specific obligations to be funded by ratepayers, which are primarily the long-term obligation to fund pensions and benefits for employees who provided services to LIPA under the

expired Management Services Agreement (MSA) between LIPA and National Grid (the former service provider).

7. *OPEB GAAP Operating Expense.* Due to the transition to a new service provider in 2014, LIPA has few active retirees collecting Other Post-Employment Benefits (OPEBs). The cash pay-as-you-go expense for such benefits is therefore small relative to the GAAP expense for accruing a liability to make such payments to retirees in the future. The difference between these two amounts can be found on the Authority's Cash Flow Statement. In 2014, LIPA adopted a funding plan consistent with actuarially sound principles to pre-fund future OPEB benefit expenses for employees currently working for the Authority and PSEG Long Island (the service provider). This pre-funding is deposited into a separately segregated OPEB Account. As the accrual GAAP Operating Expense for OPEBs in any year is significantly higher than cash pay-as-you-go expense, the difference between the GAAP and cash expense is available if needed to pay fixed obligations in the year. Furthermore, from a legal perspective the Authority's annual pre-funding deposits into the OPEB Account to fund future benefits are also first available to make fixed obligation payments. Additionally, the Board authorized that, should the need arise, the OPEB Account balance is available to make fixed obligation payments, acting in effect as a reserve fund. LIPA's ratemaking model therefore recognizes the availability of these funds to make fixed obligation payments.[3]

8. *Other Interest Expense* represents costs that are reported as interest expense on the income statement but are not part of Debt Service. The largest component of Other Interest Expense is interest rate swap payments, which are generally subordinate to bond payments. Additional such expense includes interest on customer deposits and bank fees. Other Interest Expense is not Debt Service, does not require coverage, and is therefore treated the same as Operating Expenses in the calculation of Funds Available for Debt Service. The amount of Other Interest Expense is shown on the Authority's Cash Flow Statement.

9. *Annual Capital Lease Payments.* Rating agencies treat capital lease payments as a fixed obligation that operates like debt. LIPA has substantial capital leases related to its procurement of power supplies for generating facilities and transmission cables. According to GASB, long-term leases that meet certain criteria must be recorded on the Authority's financial statements as capitalized leases. To recognize capital lease obligations in the calculation of coverage, the rating agencies add the annual capital lease obligation (imputed repayment of principal and interest) to both the numerator and the denominator of the fixed obligation coverage ratio. LIPA's Annual Capital Lease Payments are shown in the footnotes to its audited financial statements.

[3] LIPA originally contemplated a similar adjustment for the pension expense related to PSEG Long Island employees. The difference between GAAP expense and ERISA cash funding for pensions has narrowed and so this is no longer a material adjustment to the funds available to pay fixed obligations.

10. *Debt Service* consists of the payment of principal and interest on LIPA's long term and short term bonds. The debt service payment schedule on long term bonds is established when the bonds are issued and typically includes semi-annual payment of interest. Short term debt typically includes monthly or quarterly payments of interest. Repayment of principal on bonds can occur under a number of circumstances that are relevant to the determination of debt service obligations in any given year.

    Debt that is retired per schedule is considered a debt service obligation and is included in the debt service payments on that scheduled date. Debt is sometimes refinanced through the issuance of new debt, typically to obtain a lower cost. Debt which is refinanced before its scheduled date is excluded from debt service requirements, and the scheduled repayments of the new debt takes the place of the scheduled repayment of the retired debt. Short term debt can also be refunded or rolled over through the issuance of new debt. This happens most frequently when an existing short term arrangement expires or is replaced by a new line of credit on more favorable terms. In such cases, the roll-over of principal is not considered to be a debt service obligation at that time, as this debt was always expected to be paid by the proceeds of the roll-over and not by revenues. The amount of Debt Service payments can be found on the Authority's Cash Flow Statement.

Minimum Days Cash on Hand must be at least 120 days

Days Cash on Hand is the ratio of the total cash and credit available divided by the Authority's average daily operating expenses. Days Cash on Hand measures the Authority's ability to sustain its operations if revenues are delayed, reduced or interrupted for any reason. Available cash consists of cash reported on the balance sheet and includes both unrestricted cash and funds that are held in a restricted account dedicated to pre-funding PSEG Long Island's operating and capital expenditures, in accordance with the terms of the Amended and Restated Operations Services Agreement. Available credit includes multiple sources such as commercial paper, letters and lines of credit, and general revenue notes. Average daily expenditure is calculated by taking LIPA's annual approved budgeted revenues minus depreciation, amortization, and interest expense and dividing the net value by 365 days.

Percent of Capital Spending Funded by Debt not to exceed 64%

<u>Percent of Capital Spending Funded by Debt</u> is calculated as the ratio of new money debt issued in the year divided by total approved capital spending. It is typically calculated both including and excluding funding derived from grants, such as FEMA. The capital spending in any year is directly observable from LIPA's financial documents and represents the net increase in fixed assets (plant in service plus investments in related utility assets like circuits or transformers). Similarly, LIPA's debt issuances are categorized as either refinancing of existing debt or new money debt and are clearly identified as to the general usage of the funds. Capital expenditures financed using short term debt or available cash that is later replenished by long term bonds are excluded from the calculation. Given the variability in capital expense from year to year, it is prudent to target a revenue funding percentage over a multi-year planning period as opposed to implementing a strict year-by-year percentage target.