**BOARD AGENDA SUMMARY SHEET**

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<th>Committee or Board:</th>
<th>Date:</th>
<th>Board Meeting Date:</th>
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<td>Board</td>
<td>September 13, 2019</td>
<td>September 25, 2019</td>
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**For All Board Voting Items:**

**Title of Agenda Item:** Approval of the Annual Report and Amendments on the Board’s Policy on the Power Supply Hedging Program

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

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

LIPA Presenter: Corey Horowitz (Presentation at F&A)  
PSEG ER&T Presenter: Steven Oster (Presentation at F&A)

**For Policy Reports Only:**

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

Date of Last Report: September 27, 2018  
Compliance Since Last Report: ☒ Yes ☐ No

Proposed Changes to Policy: ☒ Yes ☐ No

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<th>Requested Action:</th>
<th>Summary: (include proposed amendments to Board Policies, if applicable)</th>
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<tr>
<td>The Board of Trustees of the Long Island Power Authority is requested to adopt a resolution: (i) finding that the Long Island Power Authority and its subsidiary the Long Island Lighting Company d/b/a LIPA has complied with the Board Policy on the Power Supply Hedging Program; (ii) approving the annual report for the Policy; and (iii) approving certain amendments to the Policy.</td>
<td>By Resolution No.1352, dated March 29, 2017, the Board adopted the Policy to maintain an effective commodity hedging program, focused on meeting the expectations of the Authority’s customers for reasonable stability and predictability in power supply costs. The Policy was last reviewed and amended by Resolution No. 1429, dated September 27, 2018. The Finance &amp; Audit Committee of the Authority’s Board of Trustees, in its charter, was delegated the responsibility of reviewing the Authority’s practices relating to commodity risk management. Certain responsibilities, as set forth in the Policy, were delegated by the Board to the Executive Risk Management Committee. Authority Staff has reviewed the Policy and recommends: (i) renaming the Executive Risk Management Committee as the Power Supply Risk Management Committee and minor modifications to the required composition of the Committee; and (ii) certain other non-material wording changes.</td>
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FOR CONSIDERATION
September 25, 2019

TO: The Board of Trustees

FROM: Thomas Falcone

SUBJECT: Approval of the Annual Report and Amendments on the Board’s Policy on the Power Supply Hedging Program

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 the Long Island Lighting Company d/b/a LIPA (collectively the “Authority” or “LIPA”) has complied with the Board Policy on the Power Supply Hedging Program (the “Policy”); (ii) approving the annual report for the Policy; and (iii) approving certain amendments to the Policy, as detailed herein, which resolution is attached hereto as Exhibit “A”.

Background - Board Policy on the Power Supply Hedging Program

By Resolution No.1352, dated March 29, 2017, the Board adopted the Policy to maintain an effective commodity hedging program, focused on meeting the expectations of the Authority’s customers for reasonable stability and predictability in power supply costs. The Policy was last reviewed and amended by Resolution No. 1429, dated September 27, 2018.

The Finance & Audit Committee (“F&A Committee”) of the Authority’s Board of Trustees, in its charter, was delegated the responsibility of reviewing the Authority’s practices relating to commodity risk management. Certain responsibilities, as set forth in the Policy, were delegated by the Board to the Executive Risk Management Committee (“ERMC”).

Specifically, the Policy provides that “the Chief Executive Officer, or his or her designee, will provide an annual compliance report on the Power Supply Hedging Program to the Finance and Audit Committee.”

Compliance with the Policy

Staff recommends that, for the reasons set for below, the Board find that the Authority has complied with the objectives of the Policy for the period since the last annual review.

The Policy is intended to “Mitigate a portion of the volatility of power supply costs in a programmatic and reasonable way on behalf of the Authority’s customer-owners.”

- The ERMC approves the LIPA Hedge Plan which identifies certain power supply cost components which can be fixed to create reasonable and stable rates. In general, hedging
these cost components has proven to reduce the Power Supply Charge (“PSC”) volatility in the absence of a hedging program and purchasing power in the open market. PSEG Energy Resource and Trade (“PSEG ER&T”) presented to the F&A Committee at the September 25, 2019 meeting the following graph indicating the actual PSC volatility as compared to the volatility customers would be exposed to based upon unhedged market prices.

![Graph showing Coefficient of Variation (12 Month Rolling) of LIPA Power Supply Charge vs. Market Prices](image_url)

The Policy shall be “executed using financial derivative and physical supply and delivery contracts for a portion of the Authority’s projected fuel and purchased power purchases, provided, however that: the net hedge position does not exceed 90% of projected fuel and purchased power needs; and the term of any such hedge does not exceed ten years without the prior approval of the Board or a term in excess of seventy-two (72) months without the prior approval of the Finance and Audit Committee of the Board.”

- PSEG ER&T authorized traders to execute both financial and physical hedge transactions on the Authority’s behalf for defined volumes that as of January 1, 2020 would be within a 59-month hedge horizon. All transactions are monitored by PSEG Enterprise Risk Management (“PSEG ERM”) back office for compliance; PSEG ERM generates and distributes hedge ratio position reports daily, weekly and monthly to the Authority’s ERMC staff.

- Hedge transactions are triggered based on a time or value trigger protocol that has been established with an independent third-party hedge advisor. Time-trigger transactions allow for the accumulation of minimum required volume hedge levels under all price
environments, value-triggered transactions allow for the accumulation of additional hedge levels based on lower decile pricing levels of value versus 4-year historical pricing. In addition, volumes associated with Board Approved Purchase Power Agreements (“PPAs”) having fixed prices and the Authority’s 18% ownership of Nine Mile Point 2 are included as part of the hedged volume. Currently, the ERMC has set a maximum hedge level limit of 85%.

- No hedges exceed a term of seventy-two months and the net hedge position does not exceed 90% of projected fuel and purchased power needs, meeting the requirements of the Policy.

The Policy states that the program shall “Achieve appropriate risk mitigation and is not for purposes of financial speculation.”

- All transactions are based on ERMC Approved projected fuel and power requirements associated with the Authority-approved annual sales forecast. Specific power supply component volumes are also validated against historical consumption data. Each hedge transaction is reviewed by PSEG ERM’s middle-office risk management group for compliance to ERMC approved LIPA Hedge Plan and procedures.

The Policy states that the program shall “Provide transparency regarding the Authority’s commodity risk management activities and the results of such activities.”

- PSEG ER&T and PSEG ERM provide to the ERMC staff on a daily, weekly and monthly basis a hedge transaction report, hedge position report and position valuation report. In addition, the following table identifies several other required reports to the ERMC and to the Authority’s F&A Committee, their distribution and reporting frequency and the originator of the reports.

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<th>Report</th>
<th>Distribution</th>
<th>Normal Frequency</th>
<th>Originator</th>
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<tr>
<td>Trading Activity Summary</td>
<td>ERMC Traders</td>
<td>Daily Weekly</td>
<td>Front Office Middle Office</td>
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<td>Position Report</td>
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<td>Credit Risk Exposure Reports</td>
<td>ERMC Traders</td>
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<td>ERMC Meeting Minutes</td>
<td>ERMC</td>
<td>As Meetings are Held</td>
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<tr>
<td>Benchmarking</td>
<td>ERMC</td>
<td>Quarterly</td>
<td>Independent third-party hedge advisor</td>
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<tr>
<td>Power Supply Hedging Program</td>
<td>Board Finance &amp; Audit Committee</td>
<td>Bi-annually</td>
<td>PSEG ER&amp;T</td>
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The Policy requires that “the Authority’s Chief Executive Officer shall appoint an Executive Risk Management Committee (“ERMC”) consisting of the Chief Financial Officer and at least two other Authority staff, one of which must be drawn from the senior management of the Authority. The ERMC will establish, maintain, and monitor processes and controls, the conduct of the Authority’s Power Supply Hedging Program, and the activities of its Service Provider, PSEG Energy Resource and Trade (“PSEG ER&T”). The key provisions of the ERMC’s activities shall include”:

“Oversight and ensuring that all Power Supply Hedging Program activities conducted by the Authority and PSEG ER&T are in accordance with this Board Policy Statement”.

- All active participants of the Power Supply Hedging Program are required to read and comply with the ERMC Approved Policies, Controls and Procedures Manual for Power Supply Hedging Program (“Manual”), which incorporates the Board Policy. All active participants are required to certify compliance with the Manual and Policy by executing the Yearly Certification of Compliance with Risk Management Policy and Procedures Form.

“Determining the Authority’s tolerance for exposure to fuel and purchased power price movements and power supply cost volatility considering the costs of limiting such exposure.”

- The ERMC has approved a Manual for the hedging program that establishes the Authority’s tolerance for exposure to fuel and purchased power price movements. The ERMC has established minimum and maximum hedging limits by time-period as well as collateral posting limits.

- The cost of the hedging program is evaluated each day in the form of mark-to-market value of the positions and stress testing collateral exposure potential of all positions executed to limit PSC volatility.

“Addressing all risk factors that are demonstrably quantifiable, actionable and material to the program.”

- The ERMC approved Manual specifically identifies authorized markets and delivery points, permissible hedge instruments and the terms and volumes available for hedging to reduce PSC volatility. Within the Manual there is also a specific LIPA Hedge Plan that addresses the PSC hedge components that are quantifiable, actionable and there is market liquidity available to hedge the required products and delivery points (i.e. natural gas, gas basis, power, power basis).

“Establishing risk boundaries consistent with such tolerances and evaluating allowable financial and physical instruments in executing the Power Supply Hedging Program.”
• The ERMC approved Manual specifically identifies authorized markets, delivery points, permissible hedge instruments, terms and volumes associated with hedging to reduce PSC volatility. Within the Manual there is also a specific LIPA Hedge Plan which addresses minimum and maximum hedge levels by time-period – consistent with utility peers.

“Establishing appropriate processes and protocols to review and monitor counterparty credit worthiness on a regular basis.”

• The Manual identifies specific procedures carried out by PSEG Credit Risk Management on behalf of the Authority for managing and monitoring counterparty credit risk on an ongoing basis. PSEG Credit Risk Management provides the ERMC with a credit report each week as noted above.

“Monitoring Commodity Futures Trading Commission rule making and all other regulatory and legal requirements to ensure that the Authority is taking all actions required to maintain compliance with respect to any transactions under the Power Supply Hedging Program.”

• PSEG ER&T, PSEG Corporate Legal department and the Authority’s internal and outside counsel monitor Commodity Futures Trading Commission regulatory rule-making to determine what actions, if any, the Authority is required to undertake to assure continued compliance.

Annual Review of the Policy

Authority Staff has reviewed the Policy and recommends: (i) renaming the Executive Risk Management Committee as the Power Supply Risk Management Committee and minor modifications to the required composition of the Committee; and (ii) certain other non-material wording changes. The proposed changes to the Policy are more particularly 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)
RESOLUTION APPROVING THE ANNUAL REPORT AND AMENDMENTS ON THE BOARD POLICY ON THE POWER SUPPLY HEDGING PROGRAM

WHEREAS, the Board Policy on the Power Supply Hedging Program (the “Policy”) was originally approved by the Board of Trustees by Resolution No.1352, dated March 29, 2017; and

WHEREAS, the Policy was last reviewed and amended by Resolution No. 1429, dated September 27, 2018; and

WHEREAS, the Finance and Audit Committee of the Board of Trustees has conducted an annual review of the Policy and has recommended that the Policy has been complied with and the changes to the Policy recommended herein are due and proper.

NOW, THEREFORE, BE IT RESOLVED, that consistent with the accompanying memorandum, the Board of Trustees hereby finds that the Authority has complied with the Policy for the period since the last annual review and approves the annual report; and

BE IT FURTHER RESOLVED, that consistent with the accompanying memorandum, the changes to the Policy that are reflected in Exhibit “B” are hereby approved.

Dated: September 25, 2019
Board Policy: Power Supply Hedging Program
Policy Type: Operating Policies
Monitored by: Finance and Audit

Board Resolution: #1352, approved March 29, 2017
#1429, amended September 27, 2018
#xxx, amended September 25, 2019

Board Policy on Power Supply Hedging Program

Electric utilities are exposed to volatile commodity prices in the normal conduct of their operations. The costs to either purchase and deliver the fuel-necessary to produce electricity in power plants owned or under contract to the Authority or to purchase power from other suppliers are recovered from the Long Island Power Authority’s (“LIPA”) Authority’s customers at cost through a Power Supply Charge that changes each month. An effective commodity hedging program provides LIPA’s customers with greater stability and predictability in power supply costs than prices in the commodity markets and is a consistent with, and expected by, utility best practice.

It is the policy of the Board of Trustees for LIPA—the Authority to maintain a Power Supply Hedging Program (the “Program”) that:

- Mitigates a portion of the volatility of power supply costs in a programmatic and reasonable way on behalf of LIPA—the Authority’s customer-owners;
- Is executed using financial derivative and physical supply and delivery contracts for a portion of LIPA—the Authority’s projected fuel and purchased power purchases, provided, however that:
  - the net hedge position does not exceed 90% of projected fuel and purchased power needs;
  - the term of any such hedge does not exceed ten years without the prior approval of the Board or a term in excess of seventy-two (72) months without the prior approval of the Finance and Audit Committee of the Board;
- Achieves appropriate risk mitigation and is not for purposes of financial speculation; and
- Provides transparency regarding LIPA—the Authority’s commodity risk management activities and the results of such activities.

LIPA—the Authority’s Chief Executive Officer shall appoint an Power Supply Executive Risk Management Committee (“PERMC”) consisting of the Chief Financial Officer and at least three other LIPA—Authority staff, two of which must be drawn from LIPA—the senior management of the Authority. The PERMC will establish, maintain, and monitor processes and controls, the conduct of LIPA—the Authority’s Power Supply Hedging Program, and the activities of its Service Provider, PSEG Energy Resource and Trade (“PSEG ER&T”). The key provisions of the PERMC’s activities shall include:

- Oversight and ensuring that all Power Supply Hedging Program activities conducted by LIPA—the Authority and PSEG ER&T are in accordance with this Board Policy Statement;
Board Policy: Power Supply Hedging Program
Policy Type: Operating Policies
Monitored by: Finance and Audit

Board Resolution: #1352, approved March 29, 2017
#1429, amended September 27, 2018
[#xxx], amended September 25, 2019

- Determining LIPA the Authority’s tolerance for exposure to fuel and purchased power price movements and power supply cost volatility considering the costs of limiting such exposure;
- Addressing all risk factors that are demonstrably quantifiable, actionable and material to the program;
- Establishing risk boundaries consistent with such tolerances and evaluating allowable financial and physical instruments in executing the Power Supply Hedging Program;
- Establishing appropriate processes and protocols to review and monitor counterparty credit worthiness on a regular basis; and
- Monitoring Commodity Futures Trading Commission rule making and all other regulatory and legal requirements to ensure that LIPA the Authority is taking all actions required to maintain compliance with respect to any transactions under the Power Supply Hedging Program.

PSEG ER&T will report to the Finance & Audit Committee biannually on the Power Supply Hedging Program. Additionally, the Chief Executive Officer, or his or her designee, will provide an annual compliance report on the Power Supply Hedging Program to the Finance and Audit Committee.
Board Policy on Power Supply Hedging Program

Electric utilities are exposed to volatile commodity prices in the normal conduct of their operations. The costs to either purchase and deliver fuel to produce electricity in power plants or to purchase power from other suppliers are recovered from the Long Island Power Authority’s (“LIPA”) customers at cost through a Power Supply Charge that changes each month. An effective commodity hedging program provides LIPA’s customers with greater stability in power supply costs and is a utility best practice.

It is the policy of the Board of Trustees for LIPA to maintain a Power Supply Hedging Program (the “Program”) that:

- Mitigates a portion of the volatility of power supply costs in a programmatic and reasonable way on behalf of LIPA’s customer-owners;
- Is executed using financial derivative and physical supply and delivery contracts for a portion of LIPA’s projected fuel and purchased power purchases, provided, however that:
  - the net hedge position does not exceed 90% of projected fuel and purchased power needs;
  - the term of any such hedge does not exceed ten years without the prior approval of the Board or a term in excess of seventy-two (72) months without the prior approval of the Finance and Audit Committee of the Board;
- Achieves appropriate risk mitigation and is not for purposes of financial speculation; and
- Provides transparency regarding LIPA’s commodity risk management activities and results.

LIPA’s Chief Executive Officer shall appoint a Power Supply Risk Management Committee (“PRMC”) consisting of at least three other LIPA staff, two of which must be drawn from LIPA senior management. The PRMC will establish, maintain, and monitor processes and controls, the conduct of LIPA’s Power Supply Hedging Program, and the activities of its Service Provider, PSEG Energy Resource and Trade (“PSEG ER&T”). The key provisions of the PRMC’s activities shall include:

- Oversight and ensuring that all Program activities conducted by LIPA and PSEG ER&T are in accordance with the Board Policy
Board Policy: Power Supply Hedging Program
Policy Type: Operating Policies
Monitored by: Finance and Audit
Board Resolution: #1352, approved March 29, 2017
#1429, amended September 27, 2018
[#xxx], amended September 25, 2019

- Determining LIPA’s tolerance for exposure to fuel and purchased power price movements and power supply cost volatility considering the costs of limiting such exposure;
- Addressing all risk factors that are demonstrably quantifiable, actionable and material to the program;
- Establishing risk boundaries consistent with such tolerances and evaluating allowable financial and physical instruments in executing the Program;
- Establishing appropriate processes and protocols to review and monitor counterparty credit worthiness on a regular basis; and
- Monitoring Commodity Futures Trading Commission rule making and all other regulatory and legal requirements to ensure that LIPA is taking the actions required to maintain compliance with respect to any transactions under the Program.

PSEG ER&T will report to the Finance & Audit Committee biannually on the Program. Additionally, the Chief Executive Officer, or his or her designee, will provide an annual compliance report on the Program to the Finance and Audit Committee.
Power Supply Hedging Program
Finance & Audit Committee
September 25, 2019
Purpose of the Power Supply Hedging Program

- **Mitigate a portion of PSC volatility**
  
  A defined Hedging program provides a means of reducing a portion of LIPA’s PSC volatility.

- **Market Volatility vs. LIPA’s PSC Volatility**
  
  Market Volatility vs. LIPA’s PSC Volatility graph presented by PSEG ER&T

- **All hedges are for the purpose of appropriate risk mitigation**
  
  and not based on speculation to achieve a rate of return.

- **Transparency**
  
  PSEG ER&T provides LIPA staff daily, weekly and monthly hedging activity reports.
Key provisions of the Board Power Supply Hedging Program Policy

- **Maximum net hedge level 90% of projected fuel and power needs**
  
  Current yearly and individual monthly hedge levels below 90% ✓ comply

- **Maximum hedge term 72 months**

  Based on current Hedge Plan, currently extend out 52 months to December 2023; in January 2020 hedges will extend out 59 months ✓ comply

- **Counterparty Credit Review**

  PSEG Credit Management reports weekly and monthly ✓ comply

LIPA’s credit rating upgrade provided an additional $17.5M in unsecured credit from several ISDA counterparties; NYISO increased credit by $3.9M 🌟
LIPA Finance and Audit Committee
September 25, 2019

Update by PSEG ER&T
Agenda

• Northeast Natural Gas Supply Limits Supply Risk During A Hurricane

• LIPA Has A Defined Hedge Plan To Lock In Commodity Prices

• Power Supply Charge Volatility Continues To Be Below Wholesale Market Volatility
Northeast Natural Gas Supply Limits Supply Risk During A Hurricane

Interstate natural gas pipelines serving the Northeast

Marcellus / Utica Shale

Appalachian shale gas represents about 1/3 of US natural gas production
LIPA Has A Defined Hedge Plan To Lock In Commodity Prices, Ensuring Minimum Targets Are Met While Looking For Value Opportunities

Declining forward natural gas prices has allowed us to capture additional value opportunities.
Power Supply Charge Volatility Continues To Be Below Wholesale Market Volatility

Our hedging activity has led to a continuing decline in customer’s price volatility with current volatility levels substantially below wholesale spot market results.

PSC pre 1/1/2017 adjusted up by 2.5 cents/kwh associated with transfer of capacity costs