

FOR CONSIDERATION

March 29, 2021

TO: The Board of Trustees

FROM: Thomas Falcone

SUBJECT: Consideration of the Adoption of Recommendations to Supplement Previously Approved Recommendations to Improve Asset Management

Requested Action

The Board of Trustees (the “Board”) of the Long Island Power Authority (“LIPA”) is being requested to adopt a resolution supplementing previously approved recommendations developed by LIPA to improve the asset management policies and practices of PSEG Long Island (the “Amended Asset Management Recommendations”), which resolution is attached hereto as **Exhibit “A.”**

Background

PSEG Long Island operates and maintains approximately 14,000 miles of transmission and distribution (“T&D”) assets owned by LIPA. Asset management is a core utility responsibility and, pursuant to Section 4.4(16), Rights and Responsibilities of LIPA, of the Amended and Restated Operations Services Agreement (“OSA”), LIPA, in part, has the right to “make recommendations to the Service Provider, in each case as may be reasonably necessary or appropriate to perform LIPA’s oversight responsibilities and obligations with respect to the provision of Operations Services under this Agreement and as may otherwise be necessary or appropriate to comply with LIPA’s legal, contractual and fiduciary obligations...” Additionally, the OSA provides that PSEG Long Island is responsible for “...the accuracy of the plant records, maps and maintenance databases concerning capital assets.”

In 2020, LIPA hired the Woodhouse Partnership (“TPWL”), a firm with international expertise in asset management across many sectors, including the utility sector, to evaluate PSEG Long Island’s asset management programs and policies. This review followed findings of significant weaknesses in National Grid’s and then PSEG Long Island’s management of LIPA’s assets in 2013 and 2018 by the New York State Department of Public Service (“DPS”) as part of Management and Operations Audits, which PSEG Long Island was responsible for remedying.

TPWL evaluated PSEG Long Island’s asset management practices and processes relative to an asset management maturity model using International Standards Organization (ISO) 55001 requirements. On a scale of zero (innocent) to four (beyond ISO), with three being “competent,” TPWL rated PSEG Long Island’s Asset Management program between zero (innocent) and two (developing) along the 27 program components prescribed by ISO.

The systems currently supporting PSEG Long Island’s management and maintenance functions are fragmented and siloed and do not lend themselves to a comprehensive enterprise-wide understanding of system assets. Asset data is spread out between various departmental data systems with limited data quality assurance. These fragmented systems impede the effective implementation of current-

generation data-driven asset management programs. The Computerized Maintenance Management System (CMMS) upgrade that PSEG Long Island is planning to implement is only a partial step and we believe it is necessary to implement an integrated Enterprise Asset Management System (EAMS) to fully realize the potential benefits of modern asset management techniques.

Additionally, over the past several years, PSEG Long Island has implemented policies and procedures to strengthen Property, Plant and Equipment (“PP&E”) records, beginning with a project to improve record-keeping related to sub-station assets and a separate project for “outside plant” (i.e. the poles, wires and associated equipment). While PSEG Long Island has made improvements, a recent physical survey of select circuits including over 5,000 poles within five individual towns across the service territory indicates that additional work remains. For example, there is a discrepancy of 35% between records and the physical inventory of Third-Party Attachments. With regards to Asset Collection (i.e. capacitors, protective devices, fuses, riser switches, and transformers), the physical inventory in one town found 24 more transformers than the 27 shown in the mapping system. Additionally, with regards to the identification of double wood poles, the physical inventory identified 170 locations while the statewide notification system (i.e. National Joint Utilities Notification System) had 73. These discrepancies indicated the need for a comprehensive inventory of PP&E records.

Asset Management Recommendations Adopted February 24, 2021

In response to the TPWL review, the Board adopted the following recommendations related to asset management at the February 24, 2021 meeting:

1. Adopt the ISO Asset Management Framework – adopt the principles and standards prescribed by ISO 55000 and 55001 as an asset management framework and develop a three-year roadmap with milestones and steps toward a maturity goal of three by the end of 2023. The roadmap should be presented for LIPA approval by April 30, 2021.
2. Annual Reliability Assessment of Plant Asset Performance – within 90 days of each year-end, PSEG Long Island should perform and report results of an annual reliability assessment of plant asset performance. The report must include a plan and timeline to address identified deficiencies.
3. Develop Asset Management Plans – complete the development of asset management plans for transmission, distribution, and substation infrastructure (preventative maintenance, upgrade/replacement of transformer, breaker, switchgear, poles, underground cable, switches (ASU), capacitor etc.) with annual reviews and three-year comprehensive updates. The Asset Management Plans should be presented to LIPA for approval by June 2021.
4. Capture Additional Data into the Computerized Maintenance Management System – Complete the development of the CMMS in accordance with the 2013 and 2018 Management and Operations Audit Recommendations and then expand data capture to include all T&D assets.
 - Complete CMMS upgrade by the end of 2021, including at least one-third of T&D assets.
 - Develop a plan to bring all T&D assets within CMMS within three years, including field verification. Deliver this plan to LIPA by August 2021.

- Begin yearly audits of digital plant records to verify completeness and accuracy of newly installed and retired assets by the end of 2021.
5. Strategic Asset Management Plan (SAMP) – Develop a SAMP that binds the work activities, investment commitments, and decision making through an overarching framework that would be explained and communicated throughout the organization.
 - Develop and present to LIPA for approval the topical outline for the first draft of the SAMP and diagnose what information is available and what information needs to be gathered or developed to prepare a SAMP by June 30, 2021.

Additional Asset Management Recommendations

LIPA staff recommends the Board adopt the following additional recommendations related to asset management and property records at the March 29, 2021 meeting:

6. Implement an Enterprise Asset Management System. Expand the scope and objectives of the planned CMMS upgrade to include a full-fledged EAMS with capabilities in maintenance management, a full-featured asset database that can accommodate all utility operational assets, comprehensive asset health monitoring, and predictive maintenance capabilities. This system should be the system of record for maintaining all operational asset data, including data for all plant assets and all field/network assets. This integrated enterprise system should provide the baseline for improving our capabilities in a data-driven, risk-based program for asset management decisions and move the utility towards a preventive and predictive approach for managing assets. The system development plan should align with PSEG Long Island’s SAMP. The new system should replace the limited, home-grown, custom CMMS and integrate asset life-cycle management, predictive maintenance, asset risk analysis, and other key asset management functions. Phase 1 of this system to go live no later than December 30, 2022.
7. Conduct a System-Wide Physical Inventory of Outside Plant Assets. PSEG Long Island should engage an outside firm to perform a system-wide physical inventory of outside plant assets for completion within three years. The physical inventory should collect detailed data on all significant physical assets belonging to the network, including poles, pole attachments, transformers, switches, line characteristics, and line-attached devices. The data developed in this physical assessment should align with asset data models in the Enterprise Asset Management System (see Recommendation No. 6). PSEG Long Island should also consider collecting relevant condition data during the physical inspection to the extent feasible.

These efforts are critical to ensuring accurate and comprehensive property records of LIPA-owned assets and will ensure that LIPA and PSEG Long Island are focusing efforts on the long-term management of LIPA’s assets to derive the greatest performance from investments for customers.

PSEG Long Island should prepare Implementation Plans for each Asset Management Recommendation no later than April 30, 2021. The Implementation Plans will be presented to the Board for consideration at its May 2021 meeting.

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

**RESOLUTION SUPPLEMENTING ASSET MANAGEMENT RECOMMENDATIONS
PREVIOUSLY APPROVED**

WHEREAS, pursuant to Section 4.4(16), Rights and Responsibilities of LIPA, of the Amended and Restated Operations Services Agreement (“OSA”), LIPA, in part, has the right to “make recommendations to the Service Provider, in each case as may be reasonably necessary or appropriate to perform LIPA’s oversight responsibilities and obligations with respect to the provision of Operations Services under this Agreement and as may otherwise be necessary or appropriate to comply with LIPA’s legal, contractual and fiduciary obligations. . .”; and

WHEREAS, additionally, the OSA provides that PSEG Long Island is responsible for “...the accuracy of the plant records, maps and maintenance databases concerning capital assets.”; and

WHEREAS, the supplements to the asset management recommendations previously adopted by the Board are critical to ensuring accurate and comprehensive property records of LIPA owned assets and will ensure that LIPA and PSEG Long Island are focusing their efforts on the long-term management of LIPA’s assets to derive the greatest performance from investments for customers.

NOW, THEREFORE, BE IT RESOLVED, the Board hereby supplements the asset management recommendations approved by the Board on February 24, 2021, as outlined in the accompanying memo, and requests Implementation Plans for the Board’s consideration at its May 2021 meeting.

Dated: March 29, 2021