

Status of Implementation Plans for Board Recommendations

April 28, 2021

SUMMARY STATUS OF RECOMMENDATIONS

Status of Project Implementation Plans for LIPA Board Recommendations

(as of April 2021)

Findings	Adopted	Total #	Complete & Under Review	In Progress	Plans Rejected and Outstanding				Deferred	Plans Due
					Dec.	Jan.	Feb.	April.		
Isaias Task Force	11/18/20	80	18	37	9	1	6	-	9	25
Risk Management	12/16/20	8	-	8	-	-	-	-	-	-
Budgeting and Reporting	12/16/20	3	-	3	-	-	-	-	-	-
Real Estate Management	1/27/21	5	-	-	-	-	-	-	5	5
Asset Management	2/24/21	6	-	-	-	-	-	-	6	6
Inventory Management	2/24/21	24	-	15	-	-	-	9	-	9
Collections Management	2/24/21	3	-	-	-	-	-	-	3	3
Asset Management	3/29/21	2	-	-	-	-	-	-	-	2
Affiliate Services	3/29/21	7	-	-	-	-	-	-	7	7
Strategic Planning	4/28/21	3	-	-	-	-	-	-	-	3
IT System Modernization	4/28/21	2	-	-	-	-	-	-	-	2
Total		143	18	63	9	1	6	9	30	62

- The Board has directed PSEG Long Island management to implement **143 recommendations** to improve PSEG Long Island operations
 - 18 recommendations are complete** and pending LIPA review
 - the Board has **adopted 63 PSEG Long Island implementation plans**
 - 62 PSEG Long Island plans to be considered** at the Board's May and June meetings
- The Board will receive **quarterly status updates** on the implementation of each plan, with independent verification and validation by LIPA staff



Isaias Task Force Recommendations

ISAIAS TASK FORCE RECOMMENDATIONS

- LIPA received **2 Project Implementation Plans** (PIPs) in April
 - **Accepted: 2 proposals**
- ITF PIPs still outstanding
 - PSEG Long Island has yet to submit **one Tier 2 PIP**
 - PSEG Long Island has not submitted revised PIPs for **15 recommendations** the Board has previously considered and provided comments on at the December, January, and February meetings

CURRENT STATUS: COMPREHENSIVE END-TO-END TESTING OF OMS 5.5

Last week PSEG Long Island conducted end-to-end performance testing of the communications and Outage Management Systems (v5.5):

- PSEG Long Island was aiming for a full-fledged, comprehensive end-to-end test of **all components**, including downstream and feeder systems
- PSEG Long Island defined its success criteria at “**no more than 4% failure rate**” per channel
- The system did not meet the success criteria on **mobile channels** but performed satisfactorily on other channels. Some **slowness** was observed in the **OMS incident manager** and **outage map** updates. This is clearly an **improvement** over previous attempts
- LIPA representatives (virtually) observed the test. PSEG Long Island has not yet submitted its evaluation of the test results. LIPA will then evaluate the test results and will provide a more in-depth analysis at the next Board meeting
- Once PSEG Long Island can successfully demonstrate that all test elements have reproducibly met their success criteria then we expect PSEG Long Island to certify their results. LIPA will then conduct its **Independent Verification and Validation Review (IV&V)** and report the findings to the Board
- To date, PSEG Long Island has not completed the “Daytime Stress Test,” requested by LIPA, which would simulate real-life scenarios: calls originating from Long Island during regular business hours

CURRENT STATUS: OUTAGE MANAGEMENT SYSTEM 6.7

Outage Management System v6.7 is still not fixed:

- PSEG Long Island moved to an older version (v 5.5) of the OMS system after the storm. OMS v 5.5 is no longer vendor supported and has more limited capabilities than v 6.7, including lack of smart meter integration and mobile applications for damage assessment
- PSEG Long Island is pursuing a “re-platform” strategy to return to the latest OMS application version (v 6.7)
- LIPA is concerned that there remains considerable risk to customers that has not been mitigated. The planned May 2021 implementation date for the re-platformed v 6.7 is very close to the start of next hurricane season, and PSEG Long Island has not conclusively demonstrated that re-platforming will resolve the issues

CURRENT STATUS: BUSINESS CONTINUITY PLANS

Comprehensive BCP in Development and Needs to be Tested

- 90-Day Report identified the lack of comprehensive Business Continuity Plans (BCPs) and recommended the development of comprehensive BCPs for all mission-critical systems to enable graceful recovery from technology failures
- PSEG Long Island submitted a “Restoration Contingency Plan for Critical System Failures” and updates thereof. The document is a good start but focuses mainly on the particular OMS failure scenarios experienced during Isaias. PSEG Long Island has added sections on other critical systems, but those sections appear perfunctory and require additional detail to be effective in practice
- PSEG Long Island conducted a tabletop drill of its OMS BCP in February and attempted a “functional exercise” in April. The functional exercise was informative but fell far short of expectations of a true functional exercise. LIPA recommends that PSEG Long Island repeat its “functional exercise” with greater rigor and then develop a true “full-scale” exercise of its BCPs
- In summary, PSEG Long Island still needs to finish comprehensive BCPs for all mission-critical systems and the BCPs need to be exercised through rigorous exercises and simulations. LIPA is continuing to meet with PSEG Long Island to ensure the expected outcomes from the recommendation

TRUSTEE COHEN'S QUESTION REGARDING MITIGATION COSTS

Request to PSEG Long Island:

- “Per Trustee Cohen's request at the March 29, 2021, Finance and Audit Committee meeting, please submit in advance of the April 19 Board Meeting detailed report(s) on all external or third-party costs incurred from 8/10/2020 to 3/31/2021 to remediate or attempt to remediate Long Island telephone and Outage management systems (including feeder systems such as ESB, pCAD, Intrado, DSCADA, Kubra, Mobile, Web, CAS, etc.) and to prepare Business Continuity Plans related to TS Isaias as well as an estimate of the cost to completion.”

PSEG LONG ISLAND'S RESPONSE TO TRUSTEE COHEN'S REQUEST

O&M EXPENDITURES

AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	TOTAL
\$998	\$142,289	\$699,099	\$153,313	\$913,032	\$1,178,198	\$860,259	\$516,701	\$4,463,888

CAPITAL EXPENDITURES

FEB	MAR	TOTAL
\$2,311,041	\$2,930,545	\$5,241,586

CUMULATIVE PROJECT COST TO DATE
(O&M + CAPITAL)

\$9.71 million

FEBRUARY TO MARCH BURN RATE
(O&M + CAPITAL)

\$3.31 million/month

EXTRAPOLATING FROM THESE NUMBERS, PROJECTED COSTS COULD BE
AROUND \$20 to \$30 MILLION



Strategic Planning

STRATEGIC PLANNING RECOMMENDATIONS

Background


- Long-term strategic planning is an essential element of utility governance and management
- Strategic planning provides for proper setting of objectives, prioritization, alignment among stakeholders, and accountability for promised results
- Good strategic planning requires long-range plans for each core business area, and a process for coordinating long-range plans with shorter-term work plans and budgets
- LIPA has tried in the past to collaborate with PSEG Long Island on strategic planning initiatives, but those efforts were largely unsuccessful

STRATEGIC PLANNING RECOMMENDATIONS

Staff recommends the Board adopt the following recommendations related to strategic planning

1. Initiate the development of five-year roadmaps for the transmission and distribution (T&D), information technology (IT), and customer service departments to be completed by March 31, 2022, and used as guidance for the 2023 Budget
 - The five-year roadmaps should evaluate the current state, articulate an end state vision, and identify the projects necessary to close the gap
 - The end state vision for the department should consider industry trends and customer needs and should align with the strategic direction articulated in the policies adopted for the utility by the LIPA Board
 - The roadmaps will be reviewed and approved by the LIPA Board
 - The roadmap should also include:
 - cost-benefit analysis for each project;
 - schedule for and sequencing of projects;
 - dependency on or interaction with projects in other departments; and
 - budget requirements for project implementation and operations.

PSEG Long Island is requested to develop and submit a PIP to implement the recommendation. The remaining seven key departments should complete roadmaps by March 31, 2023, for the 2024 Budget. Thereafter, the five-year departmental roadmaps should be updated on a biennial cycle



IT System Modernization

ENTERPRISE RESOURCE PLANNING SYSTEM BACKGROUND

- Enterprise Resource Planning (ERP) is typically used by an organization to manage financial, human resources and procurement operations
- In 2014, PSEG integrated PSEG Long Island into their Corporate ERP rather than building a stand-alone ERP system for LIPA's operations
- PSEG implied that doing so would result in significant savings to LIPA's customers
- The legacy PSEG ERP implementation is at the end of its lifecycle and is on extended support – SAP will maintain but will not provide enhancements to this system
- LIPA's P3 business model was designed to allow for a change in service providers without significant business interruption or switching cost
- The current ERP operating model raises the complexity, cost, and risk required to change service providers if needed. It also reduces the LIPA's ability to exercise effective oversight on operations managed/supported by ERP

CUSTOMER INFORMATION SYSTEM BACKGROUND

- LIPA's Customer Accounting System (CAS) supports utility customer relations, customer billing, and revenue management was commissioned in 1975 based on legacy mainframe technology (i.e. green screen)
- The current system limits the utility's ability to respond to customer needs, billing format changes, rate modernization, and regulatory requirements
- Due to its age, there is a shortage of technical expertise to maintain and support this mission critical system
- In 2013, PSEG Long Island recommended CAS replacement to LIPA as part of transition planning. This recommendation was based on a lack of system agility, high operating cost, and the shrinking availability of technical expertise to maintain the systems
- In 2016, PSEG Long Island declined to proceed with the replacement, without offering detailed analysis, expressing concerns about the risk to customer satisfaction

IT SYSTEM MODERNIZATION RECOMMENDATIONS

1. PSEG Long Island should initiate **planning and replacement of the ERP and CAS** by developing and submitting two PIPs: one for replacement of each system
 - System implementations should be separate and independently operable from PSEG's enterprise systems
 - The PIPs should identify all impacted systems, sequencing of activities, required resources, potential roadblocks, operational considerations, cost-control measures, and enterprise risk analysis
 - The PIPs should also include a schedule for meetings between LIPA and PSEG Long Island to mutually agree on the implementation scope, technical approach, consultant qualifications, and phasing of the implementation
 - The PIPs should provide for (i) regular progress reports, (ii) independent verification and validation meetings and review activities, (iii) presentations at key milestones to ensure alignment, and (iv) routine document and data sharing with LIPA



Inventory Management

INVENTORY MANAGEMENT RECOMMENDATIONS

On February 24, 2021, Board adopted 25 recommendations to address deficiencies in inventory management controls and practices: technology, warehouse management, and procurement and directed PSEG LI to develop and submit PIPs by April 9, 2021

- LIPA received 23 of the 25 PIPs in April
 - **15 proposals: Accepted**
 - **8 proposals: Rejected** (to be resubmitted in May)