FOR CONSIDERATION February 24, 2021

TO:	The Board of Trustees
FROM:	Thomas Falcone
SUBJECT:	Consideration of the Adoption of PSEG Long Island Implementation Plans for Isaias Task Force Report Recommendations

Requested Action

The Board of Trustees (the "Board") of the Long Island Power Authority ("LIPA") is requested to approve a resolution adopting certain PSEG Long Island Implementation Plans for the Isaias Task Force (the "Task Force") Recommendations, which resolution is attached hereto as **Exhibit "A"**.

Background

On Tuesday, August 4, 2020, Tropical Storm Isaias landed on Long Island with rain and wind gusts of up to 70 miles per hour. The resulting damage to the electrical system caused approximately 646,000 customer outages.

On August 5, LIPA's Chief Executive Officer initiated an independent investigation of the circumstances and root causes that led to well-documented lapses in PSEG Long Island's storm response. The Task Force was charged with providing actionable recommendations and overseeing PSEG Long Island's remediation activities. LIPA committed to reporting the Task Force's findings and recommendations to the LIPA Board of Trustees and the public in a 30-Day Preliminary Report, 90-Day Interim Report. There will also be a Final Report in May 2021.

The Task Force presented the 30-Day Report to LIPA's Board of Trustees at the September 23, 2020 Board Meeting and released it to the public. Because of the urgency of the immediate threat of another major storm, the 30-Day Report focused on the failures of PSEG Long Island's information technology and communication systems and their proximate causes.

On November 13, DPS provided a recommendation (the "DPS Recommendation") to the LIPA Board as a result of its ongoing investigation of PSEG Long Island's storm response. DPS Staff identified more than 70 potential violations of PSEG Long Island's ERP. The DPS recommended, among other things, that LIPA:

- evaluate options to terminate PSEG Long Island as LIPA's Service Provider;
- declare PSEG Long Island's poor performance during Isaias as a first failure of the Major Storm Performance Metric as defined in the OSA; and
- seek to either terminate or renegotiate the OSA to enable greater oversight by LIPA and DPS.

The Task Force presented the 90-Day Report to the Board at the November 18, 2020 Board Meeting. The 90-Day Report expanded on the findings of the 30-Day Report and addressed broader questions on the effectiveness of PSEG Long Island's management of utility operations.

As set forth in Appendix 2 and Appendix 3 of the 90-Day Report, the Task Force provided nearly 100 recommendations for the Board's consideration (the "Task Force Recommendations"). The Task Force Recommendations were designed to, among other things, (i) change management incentives and accountabilities; (ii) reform information technology and emergency management; and (iii) strengthen LIPA's oversight. The Task Force Recommendations are tiered based upon priority. The tiered system allows LIPA and PSEG Long Island to either implement or present implementation plans to implement the most critical recommendations on an accelerated basis.

By Resolution No. 1568, dated November 18, 2020, the Board directed the Task Force, together with PSEG Long Island, to implement the Task Force Recommendations, including the creation of Implementation Plans to be completed within the tiered structure as set forth in Appendix 2 and Appendix 3 of the 90-Day Report; and to report to the Board at least quarterly until such Task Force Recommendations are fully implemented.

Thereafter, by Resolution No. 1570, dated December 16, 2020, the Board adopted certain Implementation Plans for the Task Force Tier 1 Recommendations, and directed PSEG Long Island to amend the remaining Tier 1 Implementation Plans and resubmit such plans to the Task Force for review at the Board's January 2021 meeting.

By Resolution No. 1590, dated January 27, 2021, the Board adopted certain other Tier 1 Recommendation Implementation Plans and directed PSEG Long Island to amend the remaining Tier 1 and 2 Implementation Plans and resubmit such plans to the Task Force for review on or before Board's February 2021 meeting.

Discussion of Implementation Plans

On December 7, 2020, PSEG Long Island submitted Implementation Plans for the Tier 1 Recommendations to the Task Force for review. The Task Force provided comments on each Implementation Plan on December 9, 2020 and asked for revised Plans to be submitted on December 11.

The Task Force subsequently reviewed the December 11 Plans provided by PSEG Long Island and recommended that eight of the revised Tier 1 Plans be adopted by the Board and 21 be resubmitted for the Board's review at the January 2021 meeting with Task Force's comments addressed.

The Task Force asked PSEG Long Island to submit the Tier 2 Plans and resubmit the 21 revised Tier 1 Plans on January 10 and deliverables belonging to the completed projects. PSEG Long Island submitted the majority of the Plans and six deliverables. The Task Force reviewed the January Plans provided by PSEG Long Island and recommended that ten of the revised Tier 1 and Tier 2 Plans be adopted by the Board and 20 be resubmitted for the Board's review at the February 2021 meeting with Task Force comments addressed.

On February 4 and 5, 2021, PSEG Long Island submitted 20 Tier 3 plans, three Tier 1 and 2 revised plans, and one deliverable to the Task Force for review.

A summary of the Implementation Plans is provided as <u>Exhibit "B"</u>. The Task Force recommends the Board adopt 9 of the 23 Implementation Plans as attached hereto as <u>Exhibit "C"</u> and that the Board recommend PSEG Long Island resubmit the remaining 12 Implementation Plans at the Board's March meeting with the comments in <u>Exhibit "B"</u> addressed. Evaluation of two plans are being postponed until LIPA review of storm hardening data is completed.

In addition, as of February 19, 2021, PSEG Long Island did not submit 14 revised Tier 1 and Tier 2 Implementation Plans that were previously considered by the Board in the December and January meetings and not adopted. Revised plans were requested for the Board's consideration for the February meeting. These remaining plans should also be submitted with the comments previously conveyed in December and January addressed.

The remaining 28 Plans for those recommendations designated as Tier 1, 2 and 3 shall be submitted by PSEG Long Island for Task Force review no later than March 10 for consideration at the Board's March meeting. Thereafter, the Task Force shall submit a Status Report to the Board no less than quarterly that summarizes the Implementation Plans' status for each Task Force Recommendation.

Recommendation

The issues identified by the Task Force's investigation, as well as the DPS' separate investigation, remain urgent. Based upon the foregoing, I recommend approval of the above requested action by adoption of a resolution in the form attached hereto.

Attachments

<u>Exhibit "A"</u>	Resolution
Exhibit "B"	Summary of Implementation Plans
Exhibit "C"	Tier 1, Tier 2 and Tier 3 Implementation Plans

RESOLUTION ADOPTING CERTAIN PSEG LONG ISLAND IMPLEMENTATION PLANS FOR THE ISAIAS TASK FORCE REPORT RECOMMENDATIONS

WHEREAS, on Tuesday, August 4, 2020, Tropical Storm Isaias landed on Long Island with rain and wind gusts of up to 70 miles per hour, resulting in damage to the electrical system and causing approximately 646,000 customer outages; and

WHEREAS, pursuant to Section 1020-f(y) of the Public Authorities Law, General Powers of the Authority, LIPA, in part, may "make any inquiry, investigation, survey or study which the authority may deem necessary to enable it effectively to carry out the provisions of this title. . ."; and

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, on August 5, LIPA's Chief Executive Officer initiated an independent review of the circumstances and root causes that led to the lapses in PSEG Long Island's Tropical Storm Isaias storm restoration; and

WHEREAS, LIPA's Chief Executive Officer appointed an Isaias Task Force that was charged with both providing actionable recommendations and overseeing PSEG Long Island's remediation activities; and

WHEREAS, LIPA committed to reporting the Isaias Task Force's findings, observations, and recommendations to the LIPA Board of Trustees and public in a 30-Day Report, 90-Day Report, and 180-Day Final Report; and

WHEREAS, the Task Force presented the 30-Day Report to LIPA's Board of Trustees at the September 23, 2020 Board Meeting and released it to the public; and

WHEREAS, on November 18, 2020, the Task Force presented the 90-Day Report, which provided recommendations to, among other things, (i) Change Management Incentives and Accountabilities; (ii) Reform Information Technology and Emergency Management; and (iii) Strengthen LIPA's Oversight (together with the 30-Day Report recommendations, the "Task Force Recommendations"); and

WHEREAS, by Resolution No. 1568, dated November 18, 2020, the Board directed the Isaias Task Force, in coordination with PSEG Long Island, to submit an Implementation Plan to the Board of Trustees for each Task Force Recommendation; and

WHEREAS, by Resolution No. 1570, dated December 16, 2020, the Board adopted certain Implementation Plans for the Task Force Tier 1 Recommendations, and directed that PSEG Long Island to amend the remaining Tier 1 Implementation Plans and resubmit such plans to the Task Force for review at the Board's January 2021 meeting; and

WHEREAS, by Resolution No. 1590, dated January 27, 2021, the Board adopted certain other Tier 1 Recommendation Implementation Plans; directed PSEG Long Island to amend the remaining Tier 1 and 2 Implementation Plans and resubmit such plans to the Task Force for review on or before Board's February 2021 meeting; and extended the time to submit the Task Force 180-Day Final Report to a 270-Day Final Report due to the Board on or before its May 2021 meeting.

WHEREAS, the Isaias Task Force has submitted to the Board nine (9) Implementation Plans recommended for the Board's approval; and

WHEREAS, the Isaias Task Force Recommendations include that if LIPA and PSEG Long Island renegotiate and cannot reach an agreement on acceptable reforms, or should there be a lack of progress to implement the Isaias Task Force Recommendations, the Board of Trustees consider the exercise of its rights to terminate the OSA with PSEG Long Island before 2025 due to the urgent issues identified by the Task Force's investigation.

NOW, THEREFORE, BE IT RESOLVED, the Board hereby adopts Implementation Plans for the Task Force Tier 1, 2 and 3 Recommendations attached hereto as **Exhibit "C"**; and

BE IT FURTHER RESOLVED, the Board hereby directs PSEG Long Island to amend the remaining Tier 1, 2 and 3 Implementation Plans to address the comments provided by the Isaias Task Force and resubmit such plans to the Isaias Task Force for review on or before Board's March 2021 meeting; and

Dated: February 24, 2021

Date Issued	No.	Summary of Implementation Plans Recommendation Tier	End State	Deliverable	Date Draft Plan Received	Individual PIP Received	Accept or Reject	Exhibit "B" Comments
	Section 4	Appendix 2 List Of 90-Day Report Recommendations Customer Communications and Outage Management Systems	Strategic Took a low Dia Contra	Documents Strature - The	2/5/24	4.04 8/5	Dogutante	
11/18/20	4.01	PSEG Long Island should develop and execute a comprehensive strategic technology plan for outage reporting and communications. 3	Strategic Technology Plan for Outage Reporting and Communications developed and being executed.	Document: Strategic Technology Plan for Outage Reporting and Communications	2/5/21	4.01_PIP_DIGITAL v3	Resubmit in March	The PIP lays out a rote schedule to develop a plan without description of what issues will be considered. The plan allocates only 3 days to actually discuss the plan (subtask: 4.01 - Set up meetings w/PSEG for overall strategy 2/23/21 to 2/25/21). LIPA believes that PSEG LI needs to think strategically on all available opportunities to improve outage reporting and communications. This PIP appears to ride on the "Digital Channels" project goals and create a deliverable out of that rather than develop a thoughtful strategic discussion and plan. We recommend that PSEG LI put further thought into what it will take to develop a comprehensive strategic approach to "outage reporting and communications" and provide an appropriate "Technical Approach" to developing a "comprehensive strategic technology plan."
11/18/20	4.09	Better prepare social media staff to handle barrage of posts using 3 modern artificial intelligence tools.	Al-based social media tools have been implemented per 90-Day Report recommendation, tested, users trained, and in production.	System requirements and use cases, RFP, test plans, system documentation, system in production	2/5/21	4.09_PIP_SOCIAL _AUTOMATION V.3	Resubmit in March	The PIP defines the project as providing the ability to deliver automated social media responses without intervention from social media analysts. It does not directly address the recommendation, which, as described in the 90-Day Report, explicitly asks for "artificial intelligence filters to the incoming posts to identify and flag safety and personal safety/personal health related concerns and give those concerns priority in responding to social media posts." While we recognize that this objective may have been implicit in the PIP, please revise the PIP to address the identification, flagging and prioritization of safety and health related concerns in incoming posts. Please also include steps to develop the ability for Al-generated responses to be monitored and checked by humans. The PIP needs to address the 90-Day Report concerns as stated above. These concerns should be reflected in the requirements and the success criteria (section 1.1 of PIP). Please also include a step where RFP requirements are submitted to LIPA for approval.
11/18/20	4.10	Implement a solution that allows the OMS to decouple customer 3 reporting from field management activities.	Ability to decouple (turn on and off) inbound customer reporting to OMS	Documented procedure, test results, system in production.	2/5/21	4.10_PIP	Resubmit in March	The recommendation requires PSEG LI to implement a solution that allows "OMS to decouple customer reporting from field management activities". Nowhere in this PIP or in the PIP Response to 4.17 is it evident that the requirement to be able to decouple "customer reporting" from "field management activities" is being addressed. There is no demonstrated traceability of the solution to the requirement. In a meeting with PSEG LI, LIPA explained that this recommendation requires that when one part of OMS is failing, e.g., customer reporting, the system should provide the ability to disconnect that portion of the functionality and have the rest of OMS continue to function (e.g. field management activities). We do not see evidence or any discussion of the requirement.
11/18/20	4.15 Section 5	Performance test OMS and "feeder" systems to establish peak capacity. 3 Emergency Response Planning and Preparation			2/5/21	4.15_PIP_OMS	Accept	-
11/18/20	5.01	Improve Emergency Planning governance so that utility-wide 3 Emergency Training is under a single Emergency Planning Team and not dispersed among various departments.	 "1. Restructured Emergency Planning organization and governance (under a new VP Emergency Management) with appropriate staff and roles and responsibilities. 2. Relevant PSEG Long Island staff has adequate awareness and clarity on the structure and governance of Emergency Planning operation. 3. Updates to relevant sections of the ERP have been made." 	 Organizational and governance plan for the restructured Emergency Planning operation. Implementation of this plan. 	2/5/21	5.01_PIP_Emerg. Training Centralization Final	Resubmit in March	The recommendation is to "improve Emergency Planning governance so that utility- wide Emergency Training is under a single Emergency Planning Team and not dispersed among various departments." The recommendation is broken into two separate project plans. One focuses on hiring or assignment of a single lead but not on how to implement utility-wide emergency training. The second stops with centralizing the governance of training but not an actual plan to centralize training. Please resubmit with a plan to both improve governance and centralize training all the way upto implementation of the plans. The PIP should reinsert the Section 4.4. LIPA Reporting Plan (from the original template provided to PSEG-LI). There should be provisions for biweekly status reports to LIPA.
11/18/20	5.02	Develop more rigorous ERP training and exercises to (a) test decision making, decision paths, and how information passes between functions, and (b) exercise well-developed business continuity plans.	1. PSEG Long Island personnel periodically and regularly receive rigorous ERP training and exercises that include (but not limited to) the following: (a) test decision making, decision paths, and how information passes between functions; and (b) exercise well-developed and comprehensive business continuity plans (BCP).	 ERP and BCP Test/Exercise and Drill Plans. ERP and BCP Test/Exercise/Drill Reports. 	2/4/21	5.02 5.03_PIP_ERP Training Simulation	Resubmit in March	Time frames are not realistic for a true detailed benchmark of industry training practices. Milestone schedule does not appear to be coordinated with the schedule for completing improved BCPs (7/30/21) that will be needed for the exercises. Project plan should run through the delivery of the enhanced training, including BCPs. The project plan ends with a "plan to make a plan" rather than a delivery schedule to accomplish the stated objectives of "more rigorous ERP training and exercises to (a) test decision making, decision paths, and how information passes between functions, and (b) exercise well-developed business continuity plans" and "Develop simulations of emergencies and war-gaming exercises so that the response team can be challenged with realistic scenarios." Note that the recommended project end state requires "exercise well-developed and comprehensive business continuity plans. The revised plan should explicitly address the requirements "(a) test decision making, decision paths, communications processes, etc." and "simulations and war gaming exercises". It appears that PSEG-LI has instead chosen to "benchmark" and address the gaps which is a very different objective. Please correct the project plan so that it is responsive to the requirements of the 90-Day Report recommendation. The PIP should reinsert the Section 4.4. LIPA Reporting Plan (from the original template provided to PSEG-LI). There should be provisions for biweekly status reports to LIPA.
11/18/20	5.03	Develop simulations of emergencies and war-gaming exercises so that the response team can be challenged with realistic scenarios.	The PSEG Long Island incident command team has undergone at least two war-gaming exercises and the	"1. Plan to develop war-gaming exercices mimicking realistic scenarios.		See 5.02	-	See 5.02
11/18/20	5.04	Create BCPs for all mission critical systems and processes. 3	 team knows how to respond should a real-life emergency occur. 1. All mission critical systems and processes have been identified and associated contingency plans have been put in place. 2. Response personnel have been trained and undergo regular training at least annually such that they are always aware of the things to do should the BCP be activated. 	 Implementation of a war-gaming exercise mimicking realistic scenarios using the plan above." "1. Policy providing authority and guidance necessary to develop effective contingency plans. A list of all mission critical systems, Business functions and processes. Identify significant threats and vulnerabilities. Business Impact Analysis System Overview. Preventive controls and measure in place to reduce the system disruptions. Thorough Contingency Strategies to ensure the continuity of business operations following a disruption. Strategies for transferring critical business operations to standby facilities and/or recovering damaged assets at an alternate 	2/5/21	5.04_PIP_BCPs Mission Critical Systems and Processes	Accept with Comments	 (1) PIP should clarify criteria that will be used to identify "mission critical applications." (2) PIP should clearly define the scope of the Business Continuity (BC) to process, i.e. "continue operations in the absence of the affected IT systems" as distinct from traditional IT Disaster Recovery (DR) Plans whose objective is to restore IT services withing a defined Recovery Time Objective (RTO). This is important because the recommendation is for developing and exercising BCs not DRs. (3) Overall schedule ends well into 2021 hurricane season. Needs to be accelerated. (4) PSEG Long Island needs to include a plan to engage BC consultants to support the analysis required. The PIP should reinsert the Section 4.4. LIPA Reporting Plan (from the original template provided to PSEG-LI). There should be provisions for biweekly status reports to LIPA.
11/18/20	5.06	Modify the Incident Command Structure to provide better visibility to the performance of mission critical technology.	ICS includes the Long Island CIO and CISO in the senior- level Incident Command Structure. Revised ERP/ERIPs reflecting processes and procedures describing roles, responsibilities, and functions associated with the IT personnel in incidence response function. ICS should identify system-level POCs for critical applications.	 location. 9. Preparedness requirements to efficiently respond to a disaster 1. Revised Incident Command Structure reflecting recommended changes documented in ERP, ERIPs, and associated components. 2. Documentation in revised ICS structure and roles and responsibilities. 3. ICS role included in job description and performance plans of Senior IT managers. 	2/5/21	5.06_PIP_ICS	Accept with Comments	 (1) Add step to assure LIPA's approval on ICS changes that address the current objective. (2) The 90-Day Report makes a specific point that visibility can be improved by appointing a technology officer reporting to the Incident Commander. This is not in the PIP and should be included. The PIP should reinsert the Section 4.4. LIPA Reporting Plan (from the original template provided to PSEG-LI). There should be provisions for biweekly status reports to LIPA.
11/18/20	5.08	Institute a program to train National Grid Gas and Generation resources to support damage assessment and materials handling work during major storms.	 "1. NG Gas and NG Generation resources trained on PSEG Long Island damage assessment processes, procedures, and protocols (including periodic retraining). 2. Overall plan/processes are in place for management, training, retraining, retention/replacement of NG Gas and NG Generation employees for damage assessment and materials handling roles. 	"1. Training plan 2. Management plan"	2/4/21	5.08_PIP_Trainin g Prgram for NG 1	Resubmit in March	The project work plan needs to develop a more granular breakdown of the steps needed to develop the training plan. Currently the entire project objective is subsumed in one step. PIP needs to analyze and document the workplan needed to get to the desired end-state. In Section 4.4. LIPA Reporting Plan please indicate monthly status reporting.
11/18/20	5.09	Work with off-island sustaining tree contractors to develop consistent work practices, especially for removal of trees from energized lines.3	On-boarding program for off-island tree contractors that incorporate PSEG work practices for tree removal on energized lines.	1. Tree contractor management plan that includings an onboarding component with training/orientation/guidance on tree removal	2/5/21	5.09_PIP_Veg Mgt Work Pratices	Accept with comments	Please provide more details on how work practices will be inventoried, evaluated and mitigated and submit to LIPA for review.
11/18/20	5.10	Undertake a thorough review of damage assessment crew management processes and especially performance shortcomings during Isaias. Ensure that the damage assessment protocols are optimized and that they leverage modern field management technology (e.g. mobility app).	Undertake a thorough review of damage assessment crew management processes and especially performance shortcomings during Isaias. Ensure that the damage assessment protocols are optimized and that they leverage modern field management technology (e.g. mobility app).	from energized lines. 1. Report showing results of the review of damage assessment processes, findings and recommendations. 2. Implementation plan for recommendations arising from (1), including use of mobility app by all damage assessors.	2/4/21	5.10_5.4.6_PIP_ Damage Assessment Technology	Resubmit in March	The statement: "Project assumes that we have limited capacity to actually change the work practices of crews coming to assist with storm restoration " has to be qualified. For large firms that are off island but nearby there should be a discussion with them and attempts should be made to obtain an exception to work practices to conform to LIPA requirements and incorporated into the contracts. Please also include monthly status reporting to LIPA (section 4.4 LIPA Reporting Plan) Please add LIPA review and sign-off steps for key deliverables, including damage assessment processes review findings, recommendations and implementation plans. Add a separate deliverable for implementation plan for operationalization of drone inspections. No indication team members have been identified and target date is past due. Technology or development of technologies not included as part of the deliverables Not clear if Work Plan and Documentation Plan are consistent with regard to schedule. The PIP proposes a generic copy-and-paste workplan that is unlikely to result in the desired outcomes. Please propose a more thoughtful workplan with more granular steps which will expose the process of damage assessment shortcomings, steps for process improvements, training protocols, and how technology will be acquired, implemented, deployed, and managed. Please modify LIPA Reporting Plan from "quarterly" to "monthly".
11/18/20	5.11	Create criteria to guide implementing circuit sweeps during long outages whenever customers have been out for more than 3-4 days and enough line resources are available.3	Circuit sweep strategy developed. People trained, drilled, and understand how everything works.	"1. Circuit sweeps stategy and operational plan (including activation criteria). 2. Drilling/testing/training on (1)."	2/4/21	5.11_PIP_Circuit _Sweeps (002)	Accept with Comments	The plan should include an explanation of the method(s) by which criteria for circuit sweeps will be established (e.g., analysis of prior storms, adoption of other utilities' practices, etc.)
								Please also include monthly status reporting to LIPA (section 4.4 LIPA Reporting Plan)
11/18/20	5.12	Improve training for RDAs including on BCPs. Prepare to implement 3 RCA, when advantageous.	 Remote Dispatch Authority policies and procedures have been reviewed and personnel are trained, especially in the context of activation(s) of contingency plans or BCPs. Criteria/conditions for implementing RCA are well developed and included in the ERP. 	 Develop and implement RDA training plan, including BCP activation scenarios (under tiered restoration scenario). Develop criteria/conditions for implementing RCA and include in ERP. Note: We recommend that a meeting be scheduled between PSEG LI operating personnel and LIPA to clarify any questions PSEG LI may have on this recommendation. 	2/4/21	5.12_PIP_RDA Training (002)	Accept with Comments	Consider whether Crew Guides need to be trained for proper flow of work to foreign crews as well. Plan does not address developing RDA activation criteria. RDA & personnel BCP training should extend to any mission critical systems not limited to OMS (e.g. communication systems down?) Please also include monthly status reporting to LIPA (section 4.4 LIPA Reporting Plan)
11/18/20	5.13	Explore using National Grid resources and local electrician resources for emergencies. Work with National Grid and local electrical contractors to train a workforce to make repairs to low-voltage service drops.	1. A low-voltage emergency restoration plan exists and is operational that incorporates NG resources and local and off-island electrical contractors as resources to support low-voltage emergency restoration during a storm. The plan includes onboarding, training, well- developed processes and procedures to ensure its safe and reliable execution during storm situations.	"1. Revised Low-voltage emergency restoration plan. 2. Implementation of (1)."	2/5/21	5.13_5.4.3_5.4.4 _PIP_Utilization of NG and Local Electricians	Accept with comments	 Need to develop a matrix to match the number of low voltage resource requirements to the storm level response. Add step to review RFP document with LIPA. Not clear when RFP is to be released between 2/12 and 8/1. Please add the appropriate milestone in the PIP. Overall schedule ends well into 2021 hurricane season. Needs to be accelerated. The PIP should reinsert the Section 4.4. LIPA Reporting Plan (from the original template provided to PSEG-LI). There should be provisions for monthly status reports to LIPA.
11/18/20	5.14	Develop a backup plan for tiered restoration in large-scale events. 3 Train and exercise for tiered restoration operations. 3	A tiered restoration plan has been developed and documented (in the ERP) for backup conditions. Personnel have been trained and have exercised the activation of the tiered restoration plan as dictated by	 Backup plan - Tiered Restoration Training on tiered restoration. 	2/4/21	5.14_PIP_Tiered Restoration Final (002)	Resubmit in March	PIP should include steps detailing how activations criteria will be developed. PIP should include steps to incorporate steps in Tiered Restoration into the ERP and ERP drills. Currently, the PIP does not include a plan to exercise the protocol that will
11/18/20	5.16	Review restoration verification protocols under "no-OMS" scenarios and ensure that they function efficiently. Leverage the AMI data in OMS to efficiently identify nested outages.	 the BCP. The restoration verification protocols have been reviewed thoroughly, root causes of shortcomings during Isaias have been identified and analyzed, remediation recommendations have been developed and implemented. OMS restoration verification protocols leverage data from AMI systems to efficiently identify nested outages. 	 Restoration Verification Review Report (Findings and Recommendations). Impementation Plan for (1) above. Technical implementation plan for incorporation AMI data into OMS to leverage identification of nested outages. Implementation of (3) above. 	2/5/21	5.16_PIP_No OMS Scenario Final	Accept with comments	be developed. In Section 4.4. LIPA Reporting Plan please include monthly status reporting to LIPA. We understand that this recommendation will be incorporated under the PSEG LI's Restoration Contingency Plans (the overarching Restoration Cusiness Coninuity Plan). Please ensure that this recommendation/requirement is explicitly highlighted/traced/ demonstrated in the OMS BC Plan. Please also include monthly status reporting in Section 4.4. LIPA Reporting Plan.
11/18/20	5.17	Benchmark the PSEG Long Island process to maintain the LSE customer list to the best practices used by other New York utilities. Evaluate the success of the 2020 LSE recertification and implement corrective actions so that 95% or more of LSE customers re-certify their need and update their contact information each year.	 Benchmark of LSE customer list management and maintenance process has been conducted utilizing at least 3 New York utilities. Best practices from (1) incorporated in PSEG Long Island LSE management procedures. 95% or more of LSE customers re-certify their need and update their contact information each year. 	 "1. Benchmark report (findings and recommendations). 2. Plan to operationalize best practices from (1). 3. Detailed plan to ensure the following outcome: 95% or more of LSE customers re-certify their need and update their contact information each year on a steady-state basis. 4. Successful recertificaiton of 95% or more of LSE customers. 	2/4/21	5.17_PIP_LSE Customer Enhancements	Accept with comments	Two steps due in January 2021 are still in progress. Accept with corrected schedule. In Section 4.4 LIPA Reporting Plan, please provide for monthly status reporting to LIPA.
11/18/20	Section 6 6.01	PSEG Lacks Transparency PSEG should review the Isaias Task Force's 90-day Report and issue a CATRR (Causal Analysis Team Review Report) that fully addresses the root causes of its failed storm response, including management shortcomings documented in this Report. PSEG should implement an improved after action analysis process for future storms that has	1. Revised CATRR formally released. 2.A policy/process document for the development of After Action Reports which includes requirement for LIPA review and approval to ensure quality and independence.		2/5/21	6.01_PIP_CATRR	Resubmit in March	CATRR is not dependent on OMS implementation, nor should it be a historical account. The draft CATRR submitted by PSEG in October 2020 ignored management failures. The CATRR should diagnose PSEG's lessons learned, management failures, and needed actions, in its own opinion. And those lessons learned should be implemented before the next storm season, in addition to any LIPA recommendations.
11/18/20	Section 7 7.04	greater rigor. Leadership and Management Initiate programs to develop stronger project management capability in PSEG Long Island's IT practice areas.	1. PSEG Long Island has strong project and program management capabilities internal to the organization.	1. Project Plan for strenthening the IT project management capability in Long Island. The project plan should identify specific goals, management, recruiting, and retention strategy	2/5/21	7.04_PIP_PMO v3	Resubmit in March	LIPA expects the deliverables to include a Project Plan for strengthening the IT project management capabilities that identifies specific goals, management, recruiting, and retention strategy and overall fit of the PM team with the rest of the IT organization. Please include this deliverable in the PIP. If this deliverable has
	Section 2	Appendix 3 List Of 30-Day Report Recommendations		the IT organization.				an eauy been produced please submit to LIPA for approval.
09/23/20	Section 3 3.2.3.4	Customer Communications and Outage Management Systems In cases where customers may need repairs to more than one type of equipment to be restored, continue to use a text option to ask "are you still out" to get confirmation.	1. PSEG Long Island is using text messaging to ask customers "are you still out" (or equivalent) in order to aid restorations of outages associated with multiple	1. Development of procedures and implementation of text messaging as described in restoration procedures.	2/5/21	3.2.3.4 Artifact Digital - J&B 2.5	PSEG Marked Complete; LIPA to Verify	PSEG Long Island states that the project is complete. LIPA will schedule IV&V Review. LIPA will review completion and report to Board on status in March.
09/23/20	3.2.4.1	Review the storm-oriented customer journey maps implemented within the mobile and web-apps so that customer transactions are directed to the externally hosted infrastructure rapidly.	Review of the storm-oriented customer journey maps implemented within the mobile and web apps have been completed, opportunities for streamlining have been identified, appropriate programming/ configuration changes have been made, and tested	 Review report (findings and recommendations) Implementation plan for revisions identified in (1). Impelementation of (2) 	2/5/21	3.2.4.1_PIP_DIGI TAL v3	Resubmit in March	The purpose of this recommendation was to review the storm-oriented customer journey maps and find opportunities for streamlining them such that the net outcome is a faster operation of apps for storm-related cases. The PIP defers this whole evaluation and potential changes to the journey maps and its potential streamlining to PIP for recommendation 3.2.4.4, which does not address this adequately
09/23/20	3.2.4.4	Model storm scenarios and conduct thorough stress testing on the website for all customer journeys and ensure that the infrastructure has sufficient capacity for high activity periods.	Outcome: smoother and faster operation of the apps for storm-related use cases. 1. Storm scenarios have been meticulously modeled, stress testing has been conducted on the website for all customer priority cusomer journeys, infrastructure capacity and resiliency has been quantified/ characterized and determined to meet at least Isaias level high-activity scenarios.	 Customer journey model Test Plan Test results Remediation implementation plan (if applicable) Implementation of (4) and retest. 	2/5/21	3.2.4.4_PIP_DIGI TAL -v3	Resubmit in March	The PIP deliverables do not include a Customer Journey Model. There is no task identified for addressing the recommendation 3.2.4.1 for reviewing the customer journey maps and exploring opportunities for streamlining them and making appropriate programming and/or configuration changes. Since the plan does not allow for exploring changes to the Customer Journey Maps, it fails to address one of the primary goals associated with recommendations 3.2.4.1 and 3.3.4.4
09/23/20	Section 5 5.4.1	Storm Resiliency Selective undergrounding of main or branch lines in areas with difficult access;			2/4/21	5.4.1_Review_Se lective	Postpone Evaluation	Postpone evaluation until further storm hardening evaluation is completed.
09/23/20 09/23/20	5.4.3 5.4.4	Investigating the use of electricians for low-voltage service restoration.3Increasing the utilization of local National Grid gas and generation system employees for wire down and damage assessment.3	Consolidated with 5.13 Consolidated with 5.13	N/A N/A		See 5.13 See 5.13	See 5.10 See 5.10	
09/23/20	5.4.5	Revisions to the current vegetation management program to shorten the 4-year cycle across the system or in selected areas with denser vegetation.	Revised vegetation management program implemented that has shortened the 4-year tree-trimming cycle across the system or at least in selected areas with dense vegetation.	"1. Revisions to vegetation management program to gain more efficiency (and shortening the tree-trimming cycle) and also focusing some of the tree-trimming activities in denser areas	2/4/21	5.4.5_Review_Ve g Mgt Cycle	Postpone Evaluation	Postpone evaluation until further storm hardening evaluation is completed.
09/23/20	5.4.6	Increase use of drones and other technologies to improve damage assess 3	1. PSEG Long Island is committed to the utilization of drone technology for damage assessment in a meaningful way. Drone and robotic technology utilization plan reflects this commitment and has moved from "demonstration" or "pilot" stage to field operation. Provisions have been made through acquisition and contracting that drone fleets are available when needed during and after a storm. The drone utilization plan must be based on clear understanding of the regulatory environment and an operational plan for such compliance.	 2. Implementation of (1)." "1. Business case analysis for utilization of drones for damage assessment, and other uses (e.g. vegetation inspection). 2. Multi-year implementation plan for broad operationalization of drone inspections." 	2/4/21	See 5.10	See 5.10	

PSEG Long Island

Project Implementation Plan

for

Isaias Task Force Recommendation Implementations

Recommendation No. 4.15

Project Title: Performance test OMS and "feeder" systems to establish peak capacity

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1. Project Definition

The OMS project is focused on improving the performance and reliability of the OMS and its ecosystem. The objective of the OMS Performance Testing (recommendation 4.15) is to systematically test the OMS v6.7 re-platform to ensure the application and infrastructure can address peak system demands. This test has been incorporated into the overall testing approach, which is detailed in Appendix 6.1 - Performance Test <u>.</u>

1.1. Project Purpose, Objectives, and Success Criteria

Project Objectives: Determine the peak performance capacity of the OMS and the feeder systems (enhanced external interfaces).

Project End State and Success Criteria: Established peak capacity performance baseline of OMS and its external interfaces.

2. Project Deliverables:

Deliverable	Delivery Date	Comments
Develop OMS v5.5 Feeder Test Plan	3/5/21	Individual Feeder Performance to be built in to OMS v5.5 Testing Strategy following End to End Test
OMS v5.5 Individual Feeder Performance Baseline Results	4/9/21	See section 4.0 for detailed project plan
Develop OMS v.6.7 Feeder Test Plan, incorporate findings from 5.5 testing	5/11/21	Utilize findings from v5.5 testing and v.6.7 performance testing
Milestone - Complete Stress to Failure Testing of Individual Feeder Systems	6/1/21	Milestone only, documentation to follow
Results documenting the peak capacity of the OMS v6.7 eco-system to address storm conditions.	6/8/2021	See section 4.0 for detailed project plan

*Dates are dependent on the design/build/test schedules for OMS and capabilities delivered in other recommendations.

2.1. Assumptions, Dependencies, and Constraints

2.1.1 Assumptions:

- CGI Vendor resources will be available to provide SME time and answer any questions on their applications
- XTENSIBLE is responsible for developing, testing, and deploying the Sonic ESB middleware between the interfaces and the OMS.
- Customer interface vendors (Intrado, Kubra) have resources and environment available to support testing and required scripting activities

• Project implementation timeline is planned to complete all activities ahead of the storm season

- The OMS v6.7 system hardware re-platforming is complete, and the OMS is operational
- Performance testing of the OMS v5.5 including the 12-hr, 24-hr and stress to failure test have been completed.
- OMS v5.5 performance test results will be provided by a Stress Test to Failure for OMS and its external interfaces
- Upstream individual feeder baselines, from OMS v5.5 Stress Tests to Failure, are valid at the time of 6.7 Stress to Failure Testing
- The OMS performance baseline criteria have been established and documented
- All updates to the Digital channels have been implemented and successfully tested
- All telecommunication updates have been implemented and successfully tested
- This implementation plan is applicable to OMS v5.5 and v6.7
- The dates set forth in project implementation plan ("PIP") are dependent on the design/build/test schedules for OMS and capabilities delivered in other recommendations.
- Result of the "Stress to Failure" Test on OMS v6.7, defined in this PIP, is not a requirement for 6.7 go-live as it is a Tier 3 Recommendation as defined in Appendix 6.2 Recommendation Tier Definition
- As a Tier 3 Recommendation, Stress to Failure Test on OMS is not on the critical path and is not part of our go/no-go criteria. This activity can be completed post OMS v6.7 go-live.
- The Stress Testing of the following feeder systems will be part of the overall scope Intrado IVR, MyAccount, SCADA, Text Messages, etc.

2.1.2 Dependencies:

- PSEG LI has the available facilities, including electrical service, capable of hosting new dedicated OMS hardware
- Integrated testing of the OMS system with dependent vendors outlined in the Digital Channels and Telecom implementation plans, to provide outage information into the OMS
- The timeline to complete the recommendations is dependent on procurement of standby hardware and setup of application for OMS v6.7

• The timeline is dependent on alignment of the overall test approach for all workstreams (OMS, Digital Channels, Telecom, Field Mobility) between PSEG LI and LIPA

2.1.3 Constraints:

- The number of qualified resources with subject matter expertise
- Competing projects that further constrain available resources
- Availability of vendor resources to provide application updates and support testing activities

3. Project Structure



3.1. Internal Project Organization

Role	Name	Responsibilities
Steering Committee	Dan Eichhorn Zeeshan Sheikh	 Championing the PSEG LI Storm Restoration initiative Establishing guiding principles for the project Ensuring project activities remained aligned with the guiding principles as <i>defined</i> Providing guidance and input on <i>key project decisions</i> Challenging the project team where appropriate Approving major <i>changes to the project's scope, objectives, timelines, costs, etc.</i> Acting as the decision maker for issues requiring <i>escalation</i> Removing institutional barriers if <i>they arise by serving as a project advocate</i>
PSEG LI CIO	Zeeshan Sheikh (Interim)	 Ensuring workstreams adhere to guiding principles as defined by project leadership Managing issues and decision making Removing any obstacles that may impede the success of the overall project Providing strategic guidance Challenging the project team where appropriate Approve procurement of external parties (as needed) Confirm all the required transactions, scenarios, and targets (including their acceptable tolerance limits) are identified and planned to be tested for the performance targets Review and approve the Testing Approach and Test Plan
Advisory Committee Members	Tim Weeks Damon LoBoi Mike Szopinski Fred Daum Patrick Hession Larry Torres Michael Sullivan	 Providing guidance and input on key project decisions Assisting in the procurement of external parties (as needed) Removing any obstacles that may impede the success of the overall project Providing subject matter expertise to the project Challenging the project team Confirm all the required transactions, scenarios and targets (including their acceptable tolerance limits) are identified and planned to be tested for the performance targets Review and approve the Testing Approach and Test Plan

r		
Team Lead	Camila Sierra Kirankumar Ramayanam Sachin Satija Geng Wang	 Drive workstream tasks and deliver recommendations for Solution Design Specification Provide support for Testing Aid in the development of functional requirements Provide input on requirement / design including preliminary documentation such as Requirements Traceability Matrices Coordinating with Business Resources to support the project and testing activities Key Point of contact for questions from the OMS vendor Providing sign off for deliverables that require business input/acceptance Delivering the OMS project on time and on budget Review and approve the Testing Approach and Test Plan
Project Manager	Nathan White	 Reporting overall status of the project to Stakeholders and Program Leadership Identifying and escalating any resource issues Providing status reports for delivery to internal and external stakeholders (LIPA, DPS) Manage resources, schedule, issues, risks and change requests Process development, requirements definition, Providing subject matter expertise to the project User Impact Analysis Facilitating workshops
Performance Engineer	Sri Kanaparthy	 Supporting Build/Test/Deploy Activities Assist with Environment setup Coordinating Development activities Assist with Technical Design and Architecture Assist with Transfer of Environments
Business Lead	Anthony Vota Mahamudul Chowdhury Gurkirat Singh Paul Mattera Matthew Otto	 Process development, requirements defini<i>tion, functional design</i> Technical Design Supporting vendor questions and workshops Testing Execution and support
Test Lead	Sandeep Blah Asutosh Agarwal Priyesh Doshi	 Providing overall management across testing activities Develop Test Strategy Develop Test Data
Test Coordinator	Sikder Islam Jinesh Kurian	 Test Coordination between Vendor and PSEG resources Responsible for execution of Test Scripts Test Script Development
Environment Lead	Anish Thomas Sohan Patel Vikas Vohra	Technical Design developmentEnvironment design support
OMS Developers and Subject Matter Advisors (CGI)	Peter Barnes Guillaume Simard-Lebrun Stephane Dumouchel Mark DeAgazio Neel Rana Jeffery Clark	 Responsible for working with PSEG LI to install and validate the OMS solution Responsible for any defect fixes and troubleshooting functional and performance issues
PSEG NJ IT Subject Matter Advisor	Damon LoBoi Michal Szopinski Timothy Weeks Michael Casella Ryan Wilson Ajith Elayidom	 Subject Matter support with: Build/Test/Deploy Activities Assisting with Environment setup Coordinating Development activities Assisting with Technical Design and Architecture Assisting with Transfer of Environments

3.2. Other Stakeholders

Identification of other internal and external project stakeholders is shown below:

Organization/Team	Name	Responsibilities
Long Island Power	Mujib Lodhi, Rick	• Overall oversight of the entire project portfolio
Authority	Shansky	
Department of Public	Joseph Suich,	• Overall oversight of the entire project portfolio
Service	Kevin Wisely	

4. Project Plan

4.1. Project Work Plan

This project work plan below outlines the steps that will be taken to test the OMS and feeder systems to establish individual capacity baselines in OMS v5.5 and determine a re-baselined capacity following the system upgrade to OMS v6.7. This project workplan aligns with recommendations 3.2.2.3, 4.12 and 4.13.

Туре	Task Name	Status	% Complete	Start	Finish
Recommendation	Performance test OMS and "feeder" systems to establish peak capacity	In Progress	16%	Mon 2/1/21	Tue 6/8/21
Parent	OMS 5.5 Stress to Failure Testing	In Progress	8%	Mon 2/1/21	Wed 4/14/21
Task	Prepare for Testing	In Progress	50%	Mon 2/1/21	Wed 2/10/21
Task	Execute End to End Performance Testing	Not Started	0%	Thu 2/11/21	Wed 2/24/21
Task	Document Findings, Lessons Learned	Not Started	0%	Thu 2/25/21	Wed 3/10/21
Deliverable	Develop OMS v5.5 Feeder Test Plan	Not Started	0%	Wed 3/10/21	Wed 3/10/21
Task	Stress to Failure Testing of Individual Feeder Systems for OMS 5.5	Not Started	0%	Mon 3/11/21	Wed 4/7/21
Task	Document Baseline for Individual Feeders	Not Started	0%	Thu 4/8/21	Wed 4/14/21
Deliverable	OMS v5.5 Individual Feeder Performance Baseline Results	Not Started	0%	Wed 4/14/21	Wed 4/14/21
Parent	6.7 Stress to Failure Testing	Not Started	0%	Wed 4/28/21	Tue 6/8/21
Task	Prep for Testing, incorporate findings from 5.5 testing	Not Started	0%	Wed 4/28/21	Tue 5/11/21

Deliverable	Develop OMS v.6.7 Feeder Test Plan, incorporate findings from 5.5 testing	Not Started	0%	Tue 5/11/21	Tue 5/11/21
Task	Stress to Failure Testing of Individual Feeder Systems	Not Started	0%	Wed 5/12/21	Tue 6/1/21
Milestone	Complete Stress to Failure Testing of Individual Feeder Systems	Not Started	0%	Tue 6/1/21	Tue 6/1/21
Task	Document findings and validate vs 5.5 testing	Not Started	0%	Wed 6/2/21	Tue 6/8/21
Deliverable	Results documenting the peak capacity of the OMS eco-system to address storm conditions.	Not Started	0%	Tue 6/8/21	Tue 6/8/21

4.2. Risk Management Plan

Issues and risks will be identified by the PSEG LI Team and the Project Manager ("PM")daily. These items will be logged in an issue/risk tracker. The information in the tracker will be reviewed by the steering committee each week. The steering committee will determine the appropriate actions (if necessary) to keep the project on track. The issue/risk tracker will be used to track items to closure, identifying the resolution date and course of action taken.

The table below outlines the applicable risks and associated risk mitigations for the Outage Management System project.

Category	Project Risk	Mitigation
Resources	Resource constraints from OMS team due to competing projects.	Assign and commit sufficient business and IT resources with availability to support this project. Two new external contracted resources with OMS experience, specifically with CGI's OMS system, have been hired to provide operations support allowing existing team members to focus on the project. As necessary, additional contract resources will be hired to back fill normal job responsibilities
Resources	Availability of resources due to other Storm duty priorities	Careful prioritization of projects with LIPA recommendations as top priority in order to complete all tasks/milestones on time.

Schedule / Cost	Contract negotiation could delay project due to multiple vendor partners involved for making changes to the entire architecture	PSEG LI to expedite contract approvals and determine if there are options for performing some work internally
Schedule / Cost	Vendor delays cause the schedule to shift and key project milestones are not able to be met on time	Regular cadence with vendors (weekly) to establish priorities and address any issues. Work with the vendor to quickly resolve any impediments.
Schedule / Cost	The activities outlined in the OMS project become more complex than anticipated	Review the additional work required to complete the project with the steering committee. Add the scope required to complete the project to the implementation plan. Clearly identify the steps that will be taken to anticipate this complexity in future projects.
Schedule / Cost	All project activities are dependent on the successful receipt and installation of new hardware and application installation of OMS v6.7. If the hardware is delayed all project activities for this project may be impacted.	Closely monitor delivery of hardware and perform as many tasks as possible in parallel to mitigate any potential delays.
Program Management	Lack of Scope/Requirements control including changes needed to legacy IT systems	The project scope has been defined; clear change control processes will be established by the PM to address requests for change.
Schedule / Cost	Existing PSEG LI Data Centers require site upgrades to accommodate new hardware. Based on the site survey recommendations additional procurement may be required which would impact the project schedule.	Closely monitor the site survey activities and conduct any tasks in parallel to mitigate potential delays.
Environment	Intrado Test Environment Limitation –PSEG LI Team will need to leverage Intrado Production environment to route incoming test calls over to Test Environment to perform any integrated testing.	Ability to test will be determined based on the prod environment availability (no storm situation). This limits the ability to perform any integrated tests with Intrado to be performed from 12-6 AM.
Environment	Mainframe Test Environment's ability to handle testing volume	Monitor impact of mainframe response during the test, adjust exit criteria if slowed response can be attributed to mainframe.

while handling end to end performance testing	
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4.3. **Issue Resolution Plan**

Issues and risks will be identified by the PSEG LI Team and the PM daily. These items will be logged in an issue/risk tracker. The information in the tracker will be reviewed by the steering committee each week. The steering committee will determine the appropriate actions (if necessary) to keep the project on track. The issue/risk tracker will be used to track items to closure, identifying the resolution date and course of action taken.

4.4. LIPA Reporting Plan

Weekly status reports for all recommendations, containing project progress and documentation will be provided to LIPA by Zeeshan Sheikh, PSEG LI CIO (Interim).

Will review test plan with LIPA prior to execution.

5. Technical Execution Plan

5.1. Determine the overall peak operational capacity of the OMS and supporting interfaces

The goal of this test is to determine the peak volume of outage transactions, across all customer interfaces at which the OMS eco-system system is operationally useable.

The following Performance Tests – Model Storm Isaias, Model 90% Customer Out, Stress to Failure and End to End Integrated tests will be conducted as a baseline on OMS 5.5 and again against OMS 6.7. The scope of the current PIP is limited to the Stress to Failure test. The Stress to Failure tests executed against each individual channel against OMS 5.5 test will serve as a foundational baseline result for each of the individual feeder systems Stress Test to Failure. The Stress Test to Failure for OMS and its Feeder systems will be conducted by running a test across the ESB and OMS system with the peak capacity of each individual channel to understand the Stress to Failure point of the OMS system.

Figure 1 below illustrates how Performance Test – Stress to Failure test will be conducted against OMS.



Figure 1. Performance Test 3 – Stress Test To Failure

Passing Performance Tests for Model Storm Isaias, Model 90% Customer Out on OMS 6.7 as defined in "Performance Test Strategy" will be required for 6.7 go-live.

Result of the "Stress to Failure" Test on OMS 6.7 defined in this PIP is not requirement for 6.7 go-live.

Figure 2 below illustrates how "Stress to Failure" Test on OMS 6.7, as defined in this PIP, is conducted.

Processing the outages through the interfaces will provide a more accurate representation of the actual end-to-end performance and operation of the OMS eco-system as compared to the current methodology of injecting outage transaction through the ESB.

Scripts simulating customer and SCADA transactions will be applied directly into the interfaces to simulate customer calls and SCADA events into the OMS, at the hourly rates shown in table 5. Tables 3 and 4 show specifically how the hourly ramped profiles will be applied during the test.

Performance metrics will be collected to measure the capability of each interface to sustain outage data transfer through the interface into the ESB and finally into the OMS incident manager. Operational testing of the OMS will be conducted at each step in the escalation, to establish performance metrics. Data will be collected and documented to validate the capability of the interface and the OMS.

The testing approach described in this section is based on lessons learned during testing of both the v5.5 and v6.7 OMS.



Figure 2. 6.7 Stress to Failure Test by Injecting Data at the Front of Digital Channels

 $Test \ A = Validate \ Intrado \ Digital \ Channel \ , \ Test \ B = Validate \ MyAccount \ Channel \ , \ Test \ C = Validate \ SCADA \ Alarms \ through \ PI, \ Test \ D = Validate \ Text \ Messages \ Digital$

Table 3: SCADA Alarms by Test Hour

Table 4: Multi-Channel Transactions by Test Hour

Table 5: 12-Hour Model to Identify peak capability of the OMS

Hour >>	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
SCADA Alarms	154	983	1,044	265	154	1,475	1,566	398	154	1,966	2,088	530	10,776
Multi-Channel Transactions	114,851	221,178	188,823	35,955	114,851	331,767	283,234	53,933	114,851	442,356	377,646	71,911	2,351,354
CSR	7,619	14,673	12,527	2,385	7,619	22,010	18,790	3,578	7,619	29,347	25,054	4,771	155,993
IVR	3,063	5,898	5,035	959	3,063	8,847	7,553	1,438	3,063	11,796	10,071	1,918	62,703
TFCC	51,117	98,441	84,041	16,003	51,117	147,662	126,061	24,004	51,117	196,882	168,081	32,006	1,046,532
Text	35,683	68,717	58,665	11,171	35,683	103,076	87,998	16,756	35,683	137,435	117,330	22,342	730,539
Web	11,024	21,230	18,125	3,451	11,024	31,846	27,187	5,177	11,024	42,461	36,249	6,903	225,702
Mobile App	6,344	12,217	10,430	1,986	6,344	18,326	15,645	2,979	6,344	24,435	20,860	3,972	129,884

Performance Requirements

• Establish peak performance baseline of the OMS, and external interfaces

5.2. Performance Test Approach

Environment Setup

- Develop infrastructure and application baseline
 - Infrastructure Setup Hardware components (OS, Memory, CPU, Storage)
 - Application configuration to match or replicate the production environment
- Testing tools, Test Scripts
 - Script Web Service Calls
 - Script "Create trouble ticket", "Get Outage Status"
 - Script Operators, Dispatcher and Crew functions (applicable for OMS v6.7 only)
- Data Preparation Data input scripts to simulate customer outage reporting
- o Simulating incoming transaction volumes from following upstream systems
 - SCADA Alarms
 - Call Center Reps (CSRs PWEB)
 - IVR Nuance, IVR TFCC
 - Text
 - Web (My Account)

- Mobile App
- PCALL (applicable for OMS v5.5)
- Align with manual users (Electric Ops) for test execution (OMS)

5.3. Quality Assurance Plan

The team will adhere to the PSEG's IT standards for the deployment of this project. PSEG LI IT SharePoint will be used as the document repository.

An individual test plan will be created, and for this recommendation it will include the following: Scope of testing, Test Criteria, Tests to be performed (e.g.: Functional, Acceptance, Regression, Performance Testing, End to End Performance Test).

Test plan and test results will be shared with LIPA upon completion.

The following functionalities of the v6.7 OMS system will be performance and stress tested to ensure stability during future storm events:

- PragmaCAD
- PragmaGEO
- PCall / PWeb
- OMS Incident Manager
- OMS Group Manager and Groupings
- OMS Web Services / ESB Web Services
- Outage Map Update
- Digital Channels

Testing of all functionalities of v6.7 OMS incorporate the following:

Tier	Metrics	Value Measured
Application	OMS Web Service	Measurement of requests processed versus
Application	OWIS Web Service	timed-out / failed
		Measurement of group manager service to
		process incoming calls into new or existing
Amplication	OMS Group Manager	outages. Some of these would go into CMS
Application	Service	Manager for calls into existing known
		outages and some would be OMS GRP
		MGR if it is new call / incident
Integration	ESB Web Services - Queue	Measurement of queue depths during the test
Integration	Depth	execution
		Measurement of Outage Map update
Caratanaa		between OMS > ESB > Kubra
Eurorience	Outage Map	2. Frequency of updates
Experience		3. Accuracy of updates (Active outages and
		Customers Affected)

Tier	Metrics	Value Measured
Application	OMS Incident Manager	Usability of Incident Manager and perform
	functionality	business functions
Application	CAD functionality	Usability of CAD and perform business
		functions
Application	PGEO functionality	Information updates & usability of PGEO
		and perform business functions
Application	PCall/Pweb	Accessibility of the functionality and ability
		to submit outages into the system
Application	Digital Channels	Volume of requests processed versus timed-
		out / failed
Application	Telecom	Call volume via the telecommunications
		infrastructure.

The basis for all performance and stress testing will be based on the data model below: Stress Test Data Model

5.4. **Documentation Plan**

Throughout the project lifecycle the implementation team will document and deliver the key deliverables as listed above in Section 2. The due date of each deliverable will be based off the Project Schedule as outlined in Section 4.1. A final Project Closure Document will be delivered once all LIPA Recommendations in this implementation plan are completed.

Project Artifacts	Description
Test Strategy & Plan	Test cases & test data are meeting the design
	requirements
Test Execution Results	Test results indicate the design requirements
	accomplished.
Technical Architecture	Technical Architecture Diagram with
	updated hardware and infrastructure
	specifications

6. Appendix

6.1. Performance Test Model

For any references to the "Performance Test Model" please refer the test methodology detailed in the document attached here. This document is not finalized and will be updated as the project progresses.

6.2. Recommendation Tier Definition

From the LIPA Isaias 90-day Report page 16:

"A consolidated lists of recommendations from the 90-Day Report and the 30-Day Report are provided in Appendix 2 and Appendix 3, respectively. We have categorized each recommendation by "tier," with tier 1 being the highest priority."

Name	Date	Reason for Changes	Version
Nathan White / Phillip Vallejo	1/26/2021	Initial Draft	1.0 draft 1
Kirankumar Ramayanam	1/27/2021	Review comments	1.0 draft 2
Nathan White / Phillip Vallejo/Geng Wang	1/28/2021	Update test	1.0 Draft 3
Geng Wang/Priyesh Doshi	2/1/2021	Updated test strategy	1.0 Draft 4
Kirankumar Ramayanam	2/2/2021	Reviewed and commented	1.0 Draft 5
Nathan White/Priyesh Doshi	2/2/2021	Updated terminology and assumptions	1.0 Draft 6
Nathan White/Priyesh Doshi	2/5/2021	Legal updates	1.0 Draft 7

Revision History

PSEG Long Island

Project Implementation Plan

for

Isaias Task Force Recommendation Implementations

Recommendation No. 5.04

Project Title: Continuation of Mission Critical Systems and Processes

LIPA ID	Report	Task Force recommendations directly addressed in this plan
5.04	90 Day Report	Create BCPs for all mission critical systems and processes.

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	5.2. Quality Assurance Plan	4
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1. Project Definition

This project seeks to review established Business Continuity Plans to determine which critical applications require revised/updated or new workarounds if those applications are unavailable (the application does not have a Disaster Recovery capability and/or is not performing as required). The project will also ensure that every Business Continuity Plan (BCP) contains appropriate guidance on who and under what circumstances that person in PSEG Long Island will have the authority to activate the BCP.

1.1. Project Purpose, Objectives, and Success Criteria

Project Objectives:

This project's objective is to create effective workarounds for mission critical systems and processes when applications required to perform the work are unavailable.

Project End State and Success Criteria:

The end state of this project occurs when workarounds have been updated/revised or created for all mission critical systems and processes and the activation protocols have been set.

Deliverable **Delivery Date Owner** Status Develop storm response critical application workarounds 1/29/21 Larry Torres Complete Finalize list of mission critical processes and supporting end-user applications for 2/19/21 Frank Savin Pending submission to LIPA Based on list of supporting end-user applications, identify all related sub-Pending Irving 3/12/21 systems for submission to LIPA Landesbaum Develop Draft workarounds for Tier 1 Business Unit mission critical applications 4/2/21Frank Savin Pending and processes Review Tier 1 Business Unit Draft workarounds with LIPA 4/16/21 Frank Savin Pending Develop Draft workarounds for Tier 2 Business Unit mission critical applications 4/23/21 Frank Savin Pending and processes

2. Project Deliverables:

Review Tier 2 Business Unit Draft workarounds with LIPA	5/7/21	Frank Savin	Pending
Develop IT plan to implement repair and recovery activities where required	6/11/21	Irving Landesbaum	Pending
Review IT strategies for repair and recovery with LIPA	6/25/21	Irving Landesbaum	Pending
Develop a training and drill schedule	6/25/21	Frank Savin	Pending
Finalize Business Continuity Plans	7/30//21	Frank Savin	Pending

2.1. Assumptions, Dependencies, and Constraints

Assumptions: An agreement can be reached on which applications and business processes are mission critical.

Dependencies: Leverage the existing information used in the Business Continuity Plans.

Constraints:

- Competing projects at PSEG LI could affect timelines
- Storm season will be a priority for PSEG LI resources who will be unavailable when performing storm roles or resolving current production issues

3. Project Structure

3.1. Internal Project Organization

The Project Sponsors are John OConnell and Aaron Ford.

Work will be performed within the current business continuity organization using each Business Unit's Business Continuity Coordinators who will review the Business Impact Analysis and BC Plan with their SLT, develop a list of mission critical applications and processes and obtain BC Plan Owner approval.

In addition, the IT Department will review each mission critical application to identify repair and recovery plans when mission critical applications do not perform as required.

3.2. Other Stakeholders

LIPA

4. Project Plan

4.1. Project Work Plan

Deliverable	Delivery Date	Comments
See Project Deliverables above	See above	See above

4.2. Risk Management Plan

The table below outlines the applicable risks and associated risk mitigations for this project.

Project Risk	Mitigation
Workarounds fail to meet stakeholder expectations	• Leverage all available resources (alternate and more flexible/resilient technologies, industry best practices, outside SMEs) to constantly improve workarounds
Ability to develop effective workarounds for complex applications	 Increase resiliency of IT infrastructure Enhance DR capabilities and /or restoration times
Resource constraints from team due to competing projects	• Assign and commit business and IT resources and verify they are available to support this project. As necessary, hire contract resources to back fill normal job responsibilities
Availability of resources due to other Storm duty priorities	• Careful prioritization of projects with LIPA recommendations as top priority in order to complete all tasks/milestones on time

4.3. Issue Resolution Plan

Continuous communication with the Project Team Leader, the BCCs and LIPA will identify issues in a timely manner. All issues noted will be added to the Risk Mitigation Plan above and tracked to closure.

4.4. LIPA Reporting Plan

Project team will seek input form LIPA on their needs.

5. Technical Execution Plan

5.1. Technical Approach

Leverage all applicable information in BIAs and BC Plans to assist in identifying mission critical applications and processes. Identify or develop alternative and/or back-up technologies whenever and wherever possible to reduce the dependency on manual and/or less efficient workaround processes. Seek opportunities to utilize historical data to offset the temporary loss of critical applications. In addition:

- Identify and on-board resource to be the focal point for IT Disaster Recovery work stream
- Support conducting BIA reviews and determine which underlying systems/processes are tied to mission critical applications/processes for PSEG LI
- Create repair and recovery analysis framework utilizing OMS as a base case:
 - Perform Dependency Assessment (Network, Infrastructure, Middleware) of a defined subset of applications used for E2E process of Outage Management (Outage to Restoration)
 - Develop Disaster Recovery Plan (DR Plan) to support BC workarounds
- Roadmap and recommendations for remaining systems/processes identified as mission critical in BIA (prioritized to risk)

5.2. Quality Assurance Plan

Conduct a comprehensive review of all updated or new workarounds with stakeholders to confirm each process meets the needs of all end-users. Leverage industry best practices and lessons learned from actual events to improve workarounds. Use exercises to confirm the effectiveness of each workaround, identify opportunities for training, and incorporate lessons learned.

5.3. Documentation Plan

Throughout the project lifecycle the implementation team will document and deliver the key deliverables as listed above in Section 2. A final Project Closure Document will be delivered once all LIPA Recommendations in this implementation plan are completed.

Revision History

Name	Date	Reason for Changes	Version
Frank Zavin	02/03/21	initial draft – w/ team feedback	1.0 draft 1

PSEG Long Island Project Implementation Plan

For

Isaias Task Force Recommendation Implementations

Project Title: Incident Command Structure (ICS) Plan

The following Isaias Task Force recommendation is directly addressed as part of this plan:

LIPA ID	Report	Task Force recommendations directly addressed in this plan	
5.06	90 Day Report	Modify the Incident Command Structure to provide better visibility to the performance of mission critical technology.	

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4.	Project Plan	.4
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	4.2. Risk Mitigation Plan	.4

1. Project Definition

This project will enhance the Incident Command Structure to provide better visibility to the performance of mission critical technology. Modifications will include documented additional detail on reporting relationships, roles, activities taken, methods of sharing information and forums for critical decision making.

1.1. Project Purpose, Objectives, and Success Criteria

1.1.1 Project Objectives:

The Task Force found the general structure of PSEG Long Island's ICS is consistent with the National Incident Management System (NIMS), however, failures of technology were exacerbated by lack of visibility and some adjustments to the ICS may have mitigated the situation. The goal of this plan is to improve visibility within ICS to issues relating to mission critical technology, such that these issues can be more effectively managed during an incident.

1.1.2 Project Scope:

The existing ICS will be reviewed; enhancements in areas including reporting relationships, roles, activities taken, methods of sharing information and forums for critical decision-making will be documented. The enhancements will be written into the appropriate plans and appropriate individuals will be trained on these enhancements.

1.1.3 Project End State and Success Criteria:

End state – ICS structure and process enhancements, associated with mission critical technology systems, are documented in the appreciate manuals and appropriate individuals have been trained

Success Criteria

- Clear documentation on topics such as:
 - Reporting relationships
 - Roles
 - o Activities taken
 - Methods of sharing information
 - Forums for critical decision making
- Applicable employees understand the enhancements
- Effective interactions related to mission critical systems during events

2. Project Deliverables

- Enhancements in areas including
 - Reporting relationships
 - o Roles
 - Activities taken
 - Methods of sharing information
 - Forums for critical decision-making
- Detailed documentation of enhancements
- Training of involved employees

2.1. Assumptions, Dependencies, and Constraints

Assumptions:

We assume that we can make meaningful enhancements to the existing documentation

Dependencies:

The plan is dependent on interaction and feedback with/from stakeholders

Constraints:

No major constraints exist

3. Project Structure

3.1. Internal Project Organization

John O'Connell will be the Executive Sponsor for this Project. John O'Connell will provide key executive level support. Larry Torres is the project lead; he will provide subject-matter expertise and tactical guidance.

Role	Responsibilities
Project Sponsor John O'Connell	 Manage issues and decision making Remove obstacles that impede the success of the overall project Provide strategic guidance Approve procurement of external parties (as needed) Establish guiding principles for the project Provide guidance and input on key project decisions Monitor completion of activities Challenge the project team where appropriate Approve major changes to the project's scope, objectives, timelines, costs, etc. Act as the decision maker for issues requiring escalation Remove institutional barriers if and when they arise by serving as a project advocate
Project lead Larry Torres	 Subject matter expertise Tactical guidance and project leadership

3.2. Other Stakeholders

The other key stakeholders involved in the execution of this plan are:

- PSEG LI Leadership
- LIPA
- PSEG LI Information Technology Group
- PSEG LI emergency preparedness group

4. Project Plan

4.1. Project Work Plan

Task	Owner	Current Status	Target End Date
Develop enhancements relating to ICS and mission critical systems	Brendan Beebe	Pending	March 1, 2021
Review Recommended Enhancements with PSEG LI SLT	Brendan Beebe	Pending	March 5, 2021
Incorporate Feedback from SLT into Plan	Brendan Beebe	Pending	March 12, 2021
Train involved employees regarding enhancements	Brendan Beebe	Pending	April 1, 2021

4.2. Risk Mitigation Plan

There are no significant risks associated with the project plan.

Revision History

Name	Date	Reason for Changes	Version
D. Abayarathna	12/15/2020	Updated to focus exclusively on ICS plan	2.0 draft 1
M. Davis	12/16/2020	Minor updates throughout	2.0 draft 2
L. Torres	2/2/21	Updated to reflect ne ICS structure alignment	2.0 Draft 3
PSEG Long Island

Project Implementation Plan

for

Isaias Task Force Recommendation Implementations

Project Title: Establish Consistent Work Practices with Off-Island Tree Contractors

Recommendation No.

LIPA ID	Report Task Force recommendations directly addressed in this plan	
5.09	90 Day Report	Work with off-island sustaining tree contractors to develop consistent work practices, especially for removal of trees from energized lines.

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1. Project Definition

In preparation of major storm events, off-island tree contractors will be requested to assist in storm restoration. Occasionally, an off-island tree contracting crew will refuse to work near energized lines since it is against their company work practices. This creates a conflict with PSEG Long Island's work practice, which allows for tree contractors near energized lines as long as minimum approach distances are maintained. Such inconsistency between work practices can cause delays in restoration due to confusion on certain tree crews work capabilities. This project will look to establish ways to mitigate the impact of differing work practices.

1.1 Project Purpose, Objectives, and Success Criteria

Project Objectives:

Develop changes to mitigate impact of differing work practices among responding tree crews

Project End State and Success Criteria:

End state – clearer visibility to work practices of incoming crews and fewer cases where work rules affect restoration productivity

Success Criteria – pre arrival visibility to work rules, reduced cased where work rules impact productivity

2. Project Deliverables:

- Project will deliver a process, whereby, capabilities and work practices of incoming tree crews are understood
- Project will deliver guidance processes for how to mitigate impact of differing work practices
- Training program

2.1. Assumptions, Dependencies, and Constraints

Assumptions:

Project assumes that we have limited capacity to actually change the work practices of crews coming to assist with storm restoration

Project assumes that increased pre arrival visibility to work practices will enable process adjustments that can mitigate the impact of the differing work practices

Dependencies and Constraints:

This initiative is highly dependent on PSEG Long Island's needs during storm preparation and storm restoration to obtain as many personnel as needed to attain restoration objectives.

3. Project Structure

3.1. Internal Project Organization

Executive Sponsor – John O'Connell

Project Lead - Mark Cerqueira

3.2. Other Stakeholders

Veg Management contractors

Foreign Crew Management

LIPA

4. Project Plan

4.1. Project Work Plan

Deliverable	Delivery Date	Owner	Comments
Develop an Inventory Process whereby work practices of all are understood prior to their arrival	March 1, 2021	M. Cerqueira	Inventory questions, when inventories will be conducted, and where will results be stored
Develop Implementation Guidelines on how work practice information from contractors will be evaluated and how differences will be mitigated	April 1, 2021	M. Cerqueira	Adjustment of work assignments to align with capabilities prior to job assignments
Train appropriate employees on the Inventory Process and the Implementation Guidelines	May 1, 2021	M. Cerqueira	N/A

4.2. Risk Management Plan

Project Risk	Mitigation
Risk of work practice information not being readily available or clear enough for VM staff to make value added adjustments	Clear WP identification forms, clear process on how to mitigate WP differences, good training of VM staff on the process

4.3. Issue Resolution Plan

Project lead will keep track of action items.

4.4. LIPA Reporting Plan

Progress will be reported to Jason Goldsmith, overall project manager.

5. Technical Execution Plan

5.1. Technical Approach

There are no technical approaches required beyond the steps outlined in the above project plan.

5.2. Quality Assurance Plan

LIPA and PSEG LI Leadership will be apprised of status to assure quality.

5.3. Documentation Plan

Document Name	Created By	Created by Date
Inventory Process Document	Mark Cerqueira	March 1, 2021
Implementation Guideline	Mark Cerqueira	April 1, 2021
Document		

Revision History

Name	Date	Reason for Changes	Version
Mark Cerqueira	5/15/21	Initial Draft	1.0 draft 1

PSEG Long Island

Project Implementation Plan

for

Isaias Task Force Recommendation Implementations

Recommendation No. 5.11

LIPA ID	Report	Task Force recommendations directly addressed in this plan
5.11	90 Day Report	Create criteria to guide implementing circuit sweeps during long outages whenever customers have been out for more than 3-4 days and enough line resources are available.

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1. Project Definition

The goal of this project is to clearly define criteria from which would trigger a decision point to place an area in a circuit sweep restoration mode. The current ERP outlines the guidance for when and how to place a feeder or area in RDA (Remote Dispatch Authority) or RCA (Remote Configuration Authority); however, it currently lacks specificity of criterion to help the Distribution Survey and Operations Control Division Supervisor make this decision.

The circuit sweep restoration philosophy is exceedingly important when an areas experience extensive damage where it is impractical or inefficient to attempt to manage at a job level. It is a much more productive and efficient way to restore those areas in a circuit sweep restoration plan; where survey and restoration crews work together working their way down a circuit restoring any and all customers impacted.

The project will outline how circuit sweeps will be defined, the criteria for activation, how they will be implemented and executed while providing circuit level status updates and ETRs.

1.1. Project Purpose, Objectives, and Success Criteria

Project Objectives:

The project will develop criteria from which the Distribution Survey and Operations Control Division Supervisors will use to support decisions to place a circuit in ADA, RDA and RCA with or without a circuit sweep restoration plan. The project will define how circuit sweeps will be defined, the criteria for activation, how they will be implemented and executed while providing circuit level status updates and ETRs.

Project End State and Success Criteria:

Comprehensive criteria and a guide for implementation and execution for circuit sweep restoration plan added into the ERP, tested and trained.

2. Project Deliverables:

Describe applicable Project Deliverables:

- Clear definition of circuit sweep concepts
- Criteria to trigger circuit sweep activation
- Documented techniques and procedures to support circuit sweep implementation
- Documented procedures to ensure reimbursement while in circuit sweep operation
- ERP update
- Training plan/schedule

2.1. Assumptions, Dependencies, and Constraints

2.1.1 Assumptions:

• Storm event is one that has extensive local damage if restored under job level dispatch would be less efficient.

2.1.2 Dependencies:

- Adequate staffing dedicated to circuit sweeps model.
 - Available tag holders, tree trimmers, damage assessors, line crews and leads
 - Clearance and control maintains within the main dispatch centers
 - Restoration is not dependent on OMS but the decision point will be dependent on the data source(s).
- OMS platform

2.1.3 Constraints:

- Availability of resources
- System functionality

3. Project Structure

3.1. Internal Project Organization



Role	Name	Responsibilities	
Steering Committee	Dan Eichhorn John O'Connell	 Championing the PSEG LI Storm Restoration initiative Establishing guiding principles for the project Ensuring project activities remained aligned with the guiding principles as <i>defined</i> Providing guidance and input on <i>key project decisions</i> Challenging the project team where appropriate Approving major <i>changes to the project's scope, objectives, timelines, costs, etc.</i> Acting as the decision maker for issues requiring <i>escalation</i> Removing institutional barriers when <i>they arise by serving as a project advocate</i> 	
Steering Committee	Mike Sullivan Patrick Hession	 Providing guidance and input on key project decisions Assisting in the procurement of external parties (as needed) Removing obstacles that impede the success of the overall project Providing subject matter expertise to the project Challenging the project team 	
Business Lead	Matthew Otto Dan Wickstrom Valerie Himelewski	 Process development, requirements definition Establishing criteria and guidance for implantation and execution Testing Execution Fund Reimbursement 	

3.2. Other Stakeholders

LIPA Damage Assessment Staff Crew Dispatching Staff Emergency Preparedness/Situational Awareness Office of Government Funds Compliance (OFGC)

4. Project Plan

4.1. Project Work Plan

LIPA ID	Task	Recommendation	Current Status	Pct. Complete	Target Start Date	Target End Date
5.5	5 Primary Establish criteria for activated circuit sweep restoration plan		In Progress		01/19/2021	04/15/2021
5.51	Subtask	Define what a circuit sweep restoration plan is	In Progress	50%	01/25/2021	02/05/2021
5.52	Subtask	Create criteria that will trigger a decision point during storm to enact circuit sweep restoration in an area	Not Started	25%	01/25/2021	02/28/2021
5.53	Subtask	Define how to implement this restoration mode	Not Started	25%	02/28/2021	03/31/2021
5.54	Subtask	Develop techniques and processes to support circuit sweep implementation and execution. Include feedback from OFGC on technics to ensure reimbursement	Not Started	0%	02/28/2021	03/31/2021
5.55	Subtask	Establish a process for feedback and updates on a circuit level	Not Started	0%	04/01/2021	04/15/2021
5.56	Subtask Update ERP documentation to include these new criteria, definitions and implementation		Not Started	0%	04/15/2021	04/30/2021
5.57	Subtask	Train affected people in the organization on the new criteria, definition and implementation	Not Started	0%	05/01/2021	05/15/2021

4.2. Risk Management Plan

The table below outlines the applicable risks and associated risk mitigations for the circuit sweep project.

Category	Project Risk	Mitigation
Resources	Quantity of employees trained to be tag holders could limit number of circuits that could be assigned circuit sweep activation.	Comprehensive review of all tag holders assignments and exploration of training additional ones.
Customer	Missing an outage during circuit sweep activation either through missing field observation or mis- tagged outage ticket.	Continued customer callback outreach program throughout storm event.

4.3. Issue Resolution Plan

Any issues that arise will be escalated through the Distribution Survey and Operations Control Division Supervisors and an action plan will be enacted to ensure timely solution. If issues mount, a circuit sweep issue tracker will be established to track items to closure.

4.4. LIPA Reporting Plan

Weekly status reports will be provided to the East and West Senior Directors until closure.

5. Technical Execution Plan

5.1. Technical Approach

Gather and review feedback from Company Stakeholders to assess the effectiveness of the criteria and impact of implementation and execution.

5.2. Quality Assurance Plan

Once the project tasks are established and completed, they will be reviewed by Emergency Preparedness to ensure alignment with current storm processes and resources allocation for storm assignments. They will ensure that this project will improve storm response and create efficient use of resources.

5.3. Documentation Plan

Document	Created By	Reviewed By	Target Date	Distribution

Revision History

Name	Date	Reason for Changes	Version
Matthew Otto / Dan Wickstrom	01/21/2021	initial draft	1.0 draft 1

PSEG Long Island

Project Implementation Plan

for

Isaias Task Force Recommendation Implementations

Recommendation No. 5.12

LIPA ID	Report	Task Force recommendations directly addressed in this plan
5.12	90 Day Report	Improve Training for Remote Dispatch Authority, Including on BCPs. Prepare to implement Remote Command Authority, when advantageous.

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1. Project Definition

The project aims to improve storm restoration by utilizing the Remote Dispatch Authority's and Remote Command Authority's most effectively. Additionally, dispatch authorities should be prepared to execute BCPs in the event of a loss of OMS or other storm related systems.

The purpose of Remote Command Authority (RCA) or "Local Circuit Control" is to decentralize outage restoration efforts from a divisional headquarters when outage analysis and crew control are no longer practical, or when off-island resources exceed the dispatch capability of existing dispatch centers. While in local circuit control, remote dispatch areas are granted configuration authority in compact geographic areas to maintain better crew control in addition to more localized and robust damage assessment and repair.

Local control is desirable when extensive damage is experienced in an area or when outside utility crews and contractor crews are brought in for assistance. Determination of the need for local control will be based on certain factors.

Also, training for members of Remote Dispatch Authority (RDA) groups shall be outlined including what training is provided and the frequency of training.

1.1. Project Purpose, Objectives, and Success Criteria

Project Objectives:

Improve storm restoration by utilizing the Remote Dispatch Authority's and Remote Command Authority's most effectively. To accomplish this goal, the organization will enhance the training for RDA & RCA personnel. Project objectives include:

- Restructuring the training format, scheduling, and curriculum.
- Incorporate BCP training in the event of a loss of OMS.
- Provide specialized Local Circuit Control training for RCA personnel and tag holders.

In addition, the project aims to develop clear activation criteria for RCA's or Local Circuit Control.

Project End State and Success Criteria:

Upon project completion, an enhanced RDA/RCA training program will be established and implemented. The supplemental storm resources will have an improved understanding of storm restoration, business continuity plan, and Local Circuit Control. In addition, the RCA activation criteria will be communicated to all stakeholders.

2. Project Deliverables:

Describe applicable Project Deliverables:

- Enhanced training program for RDA operations
- Training schedule for RDA operations
- *RDA leader assessment and adjustments*
- ERP updates

2.1. Assumptions, Dependencies, and Constraints

- Emergency Preparedness will provide resources to train RDA/RCA personnel.
- RDA/RCA personnel are available to attend training.
- RDA/RCA personnel have a basic knowledge of the distribution system.

3. Project Structure

3.1. Internal Project Organization

Role	Name	Responsibilities
Project Implementation Plan Team	Miceli Campbell Norgard Hewlett Jarymiszyn	 Establishing guiding principles for the project Ensuring project activities remained aligned with the guiding principles as <i>defined</i> Providing guidance and input on <i>key project decisions</i> Challenging the project team where appropriate Approving major <i>changes to the project's scope, objectives, timelines, costs, etc.</i> Acting as the decision maker for issues requiring <i>escalation</i> Develop clear activation criteria for RCA's or Local Circuit Control.
Emergency Preparedness	Plackis Torres Bryson	 Provide specialized Local Circuit Control training for RCA personnel and tag holders. Restructuring the training format, scheduling, and curriculum. Incorporating BCP training in the event of a loss of OMS.
RDA/RCA Employees	MAC's Dispatch Area Coordinators Dispatch Area Tag Holders Dispatch Area Operators	Full participation in training

3.2. Other Stakeholders

LIPA Emergency Preparedness Crew Dispatch Personnel Damage Assessment Dispatch Personnel

4. Project Plan

4.1. Project Work Plan

LIPA ID	Task	Recommendation	Current Status	Pct. Complete	Target Start Date	Target End Date
	Primary	Develop an enhanced RDA/RCA training program.				03/15/2021
	Subtask	Review storm protocols and procedures	Complete	100%	01/20/2021	01/20/2021
	Subtask	Evaluate existing RDA training and look for opportunity for improvement	Not started	0%	02/01/2021	03/01/2021
	Subtask	Evaluate capabilities of the RDA Leads. Recommend and implement changes to roles based on capabilities	Not started	0%	02/08/2021	03/01/2021
	Subtask	Incorporate BCP material into training curriculum	Not started	0%	02/01/2021	03/01/2021
	Subtask	Develop new RCA material and incorporate into training curriculum	In progress	75%	01/20/2021	03/01/2021
	Subtask	Evaluate training duration, schedule and training frequency	Not started	0%	02/01/2021	03/15/2021
	Subtask	Develop training attendance tracker	Not started	0%	02/01/2021	03/15/2021
	Subtask	Incorporate BCP drills/ simulations	Not started	0%	03/01/2021	03/15/2021
	Subtask	Incorporate RCA drills/ simulations	Not started	0%	03/01/2021	03/15/2021
	Primary	Develop clear activation criteria for RCA's or Local Circuit Control.	Not started	0%	02/01/2021	03/15/2021
	Primary	Deploy enhanced RDA/RCA training.	Not started	0%	03/15/2021	05/01/2021

4.2. Risk Management Plan

Category	Project Risk	Mitigation
Resources	Inadequate staffing of RDA or inadequate amount of trained personnel	PSEG LI to fully staff each RDA and ensure training is provided into primary/secondary alternate roles.
Schedule	Timeliness of training rollout.	EP to ensure training is completed.
Resources	Lack of qualified trainers or SME's.	EP to ensure adequate trainers.

4.3. Issue Resolution Plan

The project team and EP will have frequent communications to discuss any issues or risks that may occur. The project team and EP will determine the appropriate actions (if necessary) to get the project on track.

4.4. LIPA Reporting Plan

TBD

5. Technical Execution Plan

5.1. Technical Approach

Review storm processes, establish training curriculum and schedule, and roll out training.

5.2. Quality Assurance Plan

Following the RDA/RCA training, trainers or SME's will evaluate the success of the storm drill.

5.3. Documentation Plan

Throughout the project lifecycle, the implementation team will document and deliver the key deliverables as listed above in Section 2. The due date of each deliverable will be based off the Project Schedule as outlined in Section 4.1.

Project Artifacts	Description
Training Documents	RDA/RCA training information
BCP for loss of OMS	Storm restoration and tracking in the event of a loss of OMS
Training Attendance Record	Tracks training attendance
RCA activation criteria	Outlines strategy for RCA activation

Revision History

Name	Date	Reason for Changes	Version
Miceli	1/20/20	initial draft	1.0 draft 1

PSEG Long Island Project Implementation Plan

for

Isaias Task Force Recommendation Implementations

Project Title: Utilize National Grid and Local Electrician Resources for Low-Voltage repairs

The following Isaias Task Force recommendation is directly addressed as part of this plan:

LIPA ID	Report	Task Force recommendations directly addressed in this plan
5.13	90 Day Report	Explore using National Grid resources and local electrician resources for emergencies. Work with National Grid and local electrical contractors to train a workforce to make repairs to low-voltage service drops.
5.4.3	30 Day Report	Investigating the use of electricians for low-voltage service restoration.
5.4.4	30 Day Report	Increasing the utilization of local National Grid gas and generation system employees for wire down and damage assessment.

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	4.2. Risk Mitigation Plan Error! Bookmark not define	ed.

1. Project Definition

PSEG Long Island maintains an Emergency Assistance Agreement with National Grid Gas (Long Island). Current efforts are underway to expand this to National Grid Generation Co. Personnel. The current agreement allows National Grid to provide local personnel and equipment to support restoration efforts during major events, when PSEG Long Island requests emergency assistance. However, this support does not include resources capable of assisting with low-voltage restoration of electric facilities. The Purpose of this project is to explore the feasibility of using National Grid, along with using local electrician resources (IBEW Local 25 – Long Island & IBEW Local 3 - NYC) during emergencies specific to repair of low-voltage service facilities.

The recommendation is directly addressed and detailed in this plan. Dialog has already commenced and future discussions are scheduled by February 15th, 2021.

1.1. Project Purpose, Objectives, and Success Criteria

1.1.1 Project Objectives:

During major outage events, supplemental high-voltage resources may be brought to assist with restoration efforts. This project will explore the feasibility of bringing in low-voltage resources to assist with low-voltage restoration on customer services from pole to house that can be completed simultaneously as high-voltage work is being performed. The work involved consists of all services, labor, equipment, materials and any other incidental services in connection with the repair and replacement of 120/240 volt, single-phase service conductors from pole to house only, which is work that qualified electricians are trained to perform.

The overall objective is to improve restoration time of low voltage overhead single outages and have additional resources to address single customer escalations including Life Saving Equipment (LSE) and special need customers

1.1.2 Project Scope:

- Explore interest and capability of National Grid and local licensed electricians for participation in program
- Modify existing Emergency Assistance Agreement with National Grid
- Work with Training Support & Contractor Services to develop training
- Discussions with IBEW Local 1049 to address any concerns
- Issue Request for Proposal to interested vendors
- Award FEMA complaint contracts to multiple vendors
- Ensure availability of Low Voltage Storm Kits for increased low voltage resources
- Develop onboarding Program modified for Low Voltage Resources
- Ensure 2-person Crew Organization is staffed for dispatching of increased Low-voltage Resources

1.1.3 Project End State and Success Criteria:

Success criteria includes a measureable increase in the number of low voltage resources available to restore customers during storms. End state includes visibility to possible number of resources available for each source, appropriate contracts in place with the appropriate entity, clearly

developed training programs and organizational structures to support increased low voltage resources.

2. Project Deliverables

This project will deliver

- Material to quantify potential availability of low voltage resources form National Grid, Local electrical contractors, and non-affiliated utility contractors
- Contract documents applicable to any of the low voltage resource providers
- Training programs for any of the low voltage resources
- Summary of organizational changes required to support increased use of low voltage resources

2.1. Assumptions, Dependencies, and Constraints

The success of the project will depend on: National Grid's willingness to participate and have employees trained to work on LIPA's low-voltage facilities – along with the interest from Local 25 & Local 3 to supply electricians to support PSEG Long Island during storm events and if they are willing to sign a contract with PSEG Long Island for these services. The number of available low voltage resources will be dependent on the vendor's availability during the time of the request. Awarding of contract to multiple vendors is recommended.

3. Project Structure

3.1. Internal Project Organization

Michael Sullivan will be the Sponsor for this Project. John O'Connell will provide key executive level support and subject-matter expertise, along with Michael Sullivan.

Role	Responsibilities
Project Sponsor	Manage issues and decision making
Michael Sullivan	• Remove obstacles that impede the success of the overall project
	Provide strategic guidance
	• Approve procurement of external parties (as needed)
	• Establish guiding principles for the project
	• Provide guidance and input on key project decisions
	 Monitor completion of activities
	• Challenge the project team where appropriate
	• Approve major changes to the project's scope, objectives, timelines, costs, etc.
	• Act as the decision maker for issues requiring escalation
	• Remove institutional barriers if and when they arise by serving as a project advocate

Role	Responsibilities
Key Executive Support John O'Connell	• Provide strategic direction and input on governance
Procurement Ehud Cohen	 Issuance of RFI and RFP to vendors Technical Review & Pricing Review of Bids and award of contracts

3.2. Other Stakeholders

The other key stakeholders involved in the execution of this plan are:

- National Grid
- LIPA
- *IBEW 1049*
- Training Support & Contractor Services
- Procurement

4. Project Plan

4.1. Project Work Plan

Plan Milestones

Task	Owner	Current Status	Target End Date
Meet with Local 1049 to discuss use of local electricians and identify any issues	M. Sullivan	Complete	Complete
Query non-affiliated contractors for availability of LV Workers	E. Cohen	Complete	Complete
Develop and Issue RFI to local electricians	E. Cohen	Complete	Complete
Evaluate RFI and hold discussion with potential vendors	Torres/Cohen	Complete	Complete
Develop and Review local electrician RFP document before releasing	E. Cohen	Complete	Complete
Identify and develop training needs/programs for electrical contractors	B. Fitzgerald	Pending	2/12/2021
Discuss interest with National Grid and come to agreement on storm assist opportunities	L. Torres	In Progress	2/15/2021
Identify organization changes required to support increased LV workers	L. Debrino	Pending	3/1/2021
Train organization on changes required to support increased LV workers	L. Debrino	Pending	3/31/2021
Develop Process to utilize non-affiliated contractors for LV workers	L. Torres	Pending	5/1/2021
Develop Requirements for emergent use of LV electricians	L. Torres	Pending	5/1/2021
If National Grid agrees to perform LV work, develop contract and agree on terms	L. Torres	Not Started	5/1/2021
If National Grid agrees to perform LV work, identify and develop training needs/programs for National Grid employees	B. Fitzgerald	Not Started	7/1/2021
Release RFP and Award Contracts	E. Cohen	Pending	8/1/2021

4.2. Risk Mitigation Plan

Category	Project Risk	Mitigation
Resources	National Grid not supportive of performing Low Voltage work	Listen for understanding/creative solutions to address concerns
Resources	Risk of other vendor work impacts degree to which low voltage resources become available to support storms	Monitor availability/Make request for resources earlier
Productivity	Lack of effectiveness due to weak training	Quality training program

Revision History

Name	Date	Reason for Changes	Version
N. De Pascale	1/20/2021	Created	1.0

PSEG Long Island Project Implementation Plan

for

Isaias Task Force Recommendation Implementations

Project Title:

Recommendation No.:

LIPA ID	Report	Task Force recommendations directly addressed in this plan
5.16	90 Day Report	Review restoration verification protocols under "no-OMS" scenarios and ensure that they function efficiently. Leverage the AMI data in OMS to efficiently identify nested outages (the AMI portion of this recommendation has been addressed in Project Plan 5.4.2)

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1. Project Definition

<u>Review restoration verification protocols under "no-OMS" scenarios and ensure that they</u> <u>function efficiently</u> – On December 17, PSEG LI submitted to LIPA Release 1 Restoration Contingency Plans for loss of critical systems including the Outage Management System (OMS). Included in the plan are Dispatch and Restoration Strategies and Call Center Operating Strategies to describe the process for a loss of OMS. On January 7, LIPA wrote a letter to PSEG indicating that the Restoration Contingency Plans needed substantial revisions. Specifically, LIPA recommended that PSEG LI revise the plans to include the embedded artifact (LIPA January 7 feedback on PSEG contingency plan Release 1). PSEG Long Island has committed to incorporating those comments and incorporating procedures for power on verifications during OMS contingencies.

The plan elements below will apply to the "Power on - no OMS" recommendation.

1.1. Project Purpose, Objectives, and Success Criteria

Project Objectives:

As part of the overall Restoration Contingency Plans for loss of Critical restoration systems, deploy "power on" verifications without a functioning OMS system,

Project End State and Success Criteria:

Effective, documented process to complete power on verification in OMS contingency work around plans

2. Project Deliverables:

- The completed review of restoration verification protocols under "no-OMS" scenarios and insurance that they function efficiently
- Testing Guidance Document
- Training Guidance Document
- Meeting with LIPA to review how the plan incorporates into the overall all-hazards emergency management framework

2.1. Assumptions, Dependencies, and Constraints

Assumption:

Power On verification with no OMS - Reasonable actions can be taken to complete power on verification without a functioning OMS

Dependencies:

PSEG LI effort to develop BCO work around for loss of OMS

PSEG LI efforts to deploy AMI and to deliver enhancements associated with OMS

Constraints:

Process capabilities and systems capabilities

3. Project Structure

3.1. Internal Project Organization

John O'Connell will sponsor the OMS contingency BCP development. John O'Connell and Rick Walden will co-sponsor the AMI to OMS enhancements.

Other Stakeholders:

IT Department Customer Services Department T&D Department

4. Project Plan

4.1. Project Work Plan

Task	Owner	Current Status	Target End Date
Develop Release 1 plan	Larry Torres	Complete	Complete
Get LIPA feedback on Release 1 plan	Larry Torres	Complete	Received January 7, 2021
Integrate LIPA feedback into plan	Larry Torres	Complete	January 31, 2021
Develop steps in contingency ERIP related to power on verifications	Larry Torres	Complete	Complete
Develop a Plan Test/Drill Guidance Document	Larry Torres	In progress	February 15, 2021
Develop a Plan Training Guidance Document	Larry Torres	In progress	February 15, 2021
Review with LIPA the revised plan and how the plan incorporates into the overall all-hazards emergency management framework	Larry Torres	Pending	March 1, 2021

4.2. Risk Management Plan

Project Risk	Mitigation
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Non OMS process limitations	Employee Expertise, brainstorming, utility feedback
	Teedbuck

4.3. Issue Resolution Plan

Project Sponsors will monitor progress and issues and collaborate to resolve issues

4.4. LIPA Reporting Plan

The established project reporting process will be utilized

5. Technical Execution Plan

5.1. Technical Approach

For the non-OMS power on verification, there are no significant technical issues that require additional action beyond the project plan, above.

5.2. Quality Assurance Plan

Project sponsor oversight and approval of deliverables will be required

6. Project Artifacts

Project Artifacts	Artifact
Recommendation 5.16 –	
Response Document	POF A
	2020-1-7
	RCP-OBS-Letter.pdf

Revision History

Name	Date	Reason for Changes	Version
Larry Torres	01/07/21	Draft 1	1.0
Larry Torres	01/13/21	Include LIPAs feedback	1.0 v2
Jason Goldsmith	02/01/21	Include LIPAs feedback dated 1.27.21	1.0 v3

PSEG Long Island Project Implementation Plan

For

Isaias Task Force Recommendation Implementations

Recommendation No. 5.17

Project Title: (LSE) Life Sustaining Equipment Customers Enhancements

LIPA ID	Recommendation		
5.17	Benchmark the PSEG Long Island process to maintain the LSE customer list to		
	the best practices used by other New York utilities. Evaluate the success of the		
	2020 LSE recertification and implement corrective actions so that 95 percent or		
	more of LSE customers recertify their needs and update their contact		
	information each year		

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	Project Definition

1. Project Definition

PSEG Long Island offers a Critical Care Program for Life Sustaining Equipment customers who rely on electricity to operate life support equipment, such as a respirator or oxygen concentrator, or for whom a disruption in service would create a medical emergency. PSEG Long Island's management of the Critical Care Program is required to comply with various New York State regulatory guidelines.

A 2018 audit of the Life Sustaining Equipment process was conducted by the Long Island Power Authority (LIPA) and led to the creation of PSEG Long Island's Customer Safeguard Solutions group, which is responsible for managing the Critical Care Program. PSEG Long Island met with several NYS electric utilities and participated in the twice a year meeting of the Complaint Managers Users Group (CMUG) to gather best practices around Life Sustaining Equipment customer oversight and used that information to develop the procedures for daily operations and maintenance of the LSE customer list. The 20/21 LSE recertification process, which is currently in progress, incorporates best practices gathered from that exercise. In October 2019, when the Customer Safeguard Solution group began handling the Life Sustaining Equipment customer list contained 6,978 Life Sustaining Equipment customers. As of December 28, 2020 the list had been reduced to 5,871 customers, with Customer Safeguard Solutions processing 1,885 removals and 778 additions from the list.

This project seeks to continue to benchmark best practices among New York State utilities as a means to identify additional process improvements such that "more Life Sustaining Equipment customers recertify their needs and update their contact information each year". An up to date Life Sustaining Equipment customer list is vital during storm events. If the Life Sustaining Equipment designation is outdated or inaccurate, Life Sustaining Equipment customers may not receive the assistance afforded them through the Program and/or resources being diverted to unnecessary calls and field visits, leading to inefficiencies in execution of the Critical Care Program.

1.1. Project Purpose, Objectives, and Success Criteria

Project Objectives: The objective of this project is to ensure that Customer Safeguard Solutions is utilizing best practices to maintain the most up to date Life Sustaining Equipment customer list. Without an efficient annual recertification of Life Sustaining Equipment customers, the status of the Life Sustaining Equipment customer list may be outdated, and/or contain inaccurate contact information. During a storm event, resources could therefore be directed towards unnecessary calls and field visits to customers whose Life Sustaining Equipment designation is outdated, while inaccurate contact information may result in the inability to contact those in need.

Project End State and Success Criteria: The success of this project will be that Customer Safeguard Solutions is successfully incorporating practices to maintain the most up to date Life Sustaining Equipment customer list which is considered best practice and positions itself to achieve first quartile performance in three years.
2. Project Deliverables:

Deliverable	Delivery Date	Comments
Benchmark the PSEG Long Island's Life Sustaining Equipment process to maintain the Life Sustaining Equipment customer list to the best practices used by other New York State utilities and determine what first quartile looks like.	March 31, 2021	Document benchmarking response received.
Evaluate the success of the 20/21 Life Sustaining Equipment recertification.	October 31, 2021	Document the outcomes of 20/21 recertification and any best practices adopted.

2.1. Assumptions, Dependencies, and Constraints

The benchmarking outcome is dependent upon the cooperation and response from the other New York State utilities.

The outcomes of the recertification process is dependent upon the responsiveness by the Life Sustaining Equipment customers.

The outcomes of the maintenance of the list are dependent upon the final removal approval from the New York State Department of Public Service.

3. Project Structure

3.1. Internal Project Organization

PSEG Long Island

Executive Sponsor Project Manager: Product Owner: SMEs: Richard Walden Brigitte Wynn Gina M. Director Gina Todd-Walker

3.2. Other Stakeholders

Complaint Managers Users Group (CMUG) - a group of managers from New York State's major gas and electric utilities, including those leads responsible for their Critical Care Programs

LIPA

New York State Department of Public Service

4. Project Plan

4.1. Project Work Plan

Deliverable	Task	Due Date	Status	Comments
3Benchmark the PSEG Long Island's Life	Create benchmarking questions to send to the Complaint Managers User Group	1/14/2021	In progress	12/11/2020 – met with N. Nolau to discuss how to draft questions 12/29/2020 – sent draft to B. Wynn, N. Nolau and G. Todd-Walker for review 1/11/2021 – reviewed with J. Greenblatt 1/12/2021 – drafting additional
Sustaining	Review benchmarking	1/14/2021	In progress	questions $1/11/2021 - \text{sent to}$
process to	questions with LIPA	1/14/2021	In progress	LIPA for review
maintain the Life Sustaining Equipment	Send benchmarking questions to Complaint Managers User Group	1/15/2021	Complete	
customer list to the best	Receive benchmarking questions responses	1/26/2021	Complete	
practices used by other New York State	Schedule follow up discussions, as needed, with New State utilities	1/29/2021	Complete	Scheduled for Week of Feb 1, 2021
utilities and determine what first quartile looks like.	Meet with LIPA to discuss benchmarking exercise findings/recommendations of best practices for adoption by PSEG Long Island, and provide summary documentation.	3/31/2021		
	Update Life Sustaining Equipment customer recertification process (appendix) based upon best practices identified and provide documentation.	4/30/2021		

Deliverable	Task	Due Date	Status	Comments
	Complete the 20/21 Life Sustaining Equipment Rectification process.	10/31/2021		
Evaluate the success of the 20/21 Life Sustaining Equipment recertification.	See Appendix for details of the Rectification process.			
	Document the outcomes of 20/21 recertification and any best practices adopted.	10/31/2021		

4.2. Risk Management Plan

This initiative is highly dependent on the responses received back from the New York State utilities. Some risk and mitigations plans are identified as follows:

Project Risk	Mitigation
New York State utilities may not support this initiative	 Good communication across all parties through participation in CMUG Creative efforts to address any concerns the New York State utilities may have Senior Executive involvement
There may be best practices identified that nay require significant technological and/or financial commitments.	• We will follow current PSEG Long Island project management and resource allocation processes.

4.3. Issue Resolution Plan

Project lead will keep track of action items. Progress will be reported to Jason Goldsmith, overall project manager.

4.4. LIPA Reporting Plan

PSEG Long Island would like to have monthly executive overview meetings with LIPA; the meeting would review completed tasks, open tasks to date, missed dates, and decision points.

5. Technical Execution Plan

5.1. Technical Approach

There are no technical approaches required beyond the steps outlined in the above project plan.

5.2. Quality Assurance Plan

LIPA and PSEG LI Leadership will be apprised of status to assure quality.

5.3. Documentation Plan

Document	Created By	Reviewed By	Target Date	Dist.
Document benchmarking responses received.	PSEG Long Island	PSEG Long Island and LIPA	3/31/2021	
Document any changes to Life Sustaining Equipment customer recertification process (appendix) based upon best practices identified.	PSEG Long Island	PESG Long Island and LIPA	4/30/2021	
Document the outcomes of 20/21 recertification and any best practices adopted.	PSEG Long Island	PSEG Long Island and LIPA	10/31/2021	
Document the update of any internal procedures, ERIPs, etc. that are effected by best practice adoption and any necessary training required.				

Revision History

Name	Date	Reason for Changes	Version
Gina M. Director	12/31/2020	initial draft	1.0 draft 1

Appendix

Details of Life Sustaining Equipment customer recertification process

Task	Due Date	Status	Comments
Finalized Recertification Letter and Medical Form	9/28/2020	Completed	Worked with LIPA to enhance the letter
Mail first recertification letter to all designated Life Sustaining Equipment customers via USPS	10/8/2020	Completed	
Evaluate issues, if any, from first mailing	10/31/2020	Completed	Some letters came back unsigned because of the location of the signature line. The recertification letter has been update to correct this. Resent any unsigned letters to Life Sustaining Equipment customer with instructions to add signature.
Mail second recertification letter to all designated Life Sustaining Equipment customers who did not respond to the first letter, in an orange envelope for increased	12/31/2020	Completed	

visibility, via				
Provide weekly update to LIPA of Life Sustaining Equipment customer list Evaluate issues, if any, from second mailing and make any necessary changes. Track response rate.	12/29/2020	On going	12/29/202 – Provided to LIPA, Kathleen Mitterway, Vice President, President, Audit	
Mail third recertification letter to all designated Life Sustaining Equipment customers who did not respond to the second letter, via certified USPS	2/12/2021			
Evaluate issues, if any, from third mailing and make any necessary changes. Track	2/28/2021			
On a case by case basis, field visits may be required for Life Sustaining Equipment customers who did not respond to the third mailing.	Beginning March			
Monthly mailing to those non- respondent Life Sustaining Equipment customers	Beginning March			
Quarterly meetings with DPS to review removal request status	3/31/2021 6/30/2021 9/30/2021 12/31/2021			