FOR CONSIDERATION
January 27, 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 and Extension of the Proposed 180-Day Report

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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, and to extend the due date for the 180-day report, 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, and 180-Day Final Report.

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.

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 the deliverables for the completed projects. PSEG Long Island submitted the majority of the Plans and six deliverables on January 12, 13 and 14. A summary of the Implementation Plans is provided as **Exhibit "B"**. The Task Force recommends the Board adopt 10 of the 31 Tier 1 and Tier 2 Implementation Plans as attached hereto as **Exhibit "C"** and

amend and resubmit at the Board's February meeting 15 of the Tier 1 and 7 of the Tier 2 Plans with the comments in **Exhibit "B"** addressed.

The Implementation Plans for those recommendations designated as Tier 3 shall be submitted by PSEG Long Island for Task Force review no later than February 8 for consideration at the Board's February meeting. Thereafter, the Task Force shall submit a Status Report to the Board no less than quarterly that summarizes the status of the Implementation Plans for each Task Force Recommendation.

Extension of the Task Force's 180-Day Final Report

As previously discussed, LIPA committed in August 2020 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, and 180-Day Final Report. Both the 30-Day Preliminary Report and the 90-Day Interim Report have been submitted to the Board. The Task Force's 180-Day Final Report is due to the Board in February 2021.

LIPA Staff is requesting that the Board adopt the Resolution, attached hereto as **Exhibit "A"**, that, in part requests that the 180-Day Final Report be extended to a 270-Day Final Report.

The vast majority of Task Force's recommendations were made in the 90-Day Report. PSEG Long Island's progress in resolving the management, information technology, and communication issues has been slower than expected at the time the Task Force's investigation began. The resolution of those issues will be part of the Task Force's Final Report.

The Task Force continues to receive and assess PSEG Long Island Implementation Plans, which are also requiring more revisions than originally anticipated. The Task Force is keeping the Board apprised of the activities associated with those plans. Lastly, as the Board is aware, work streams relating to Options Analysis and Transition Planning are significant efforts by LIPA Staff and are being advanced expeditiously per the Board's direction at the December Board meeting. These workstreams have a March 31, 2021 deadline.

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

Exhibit "A" Resolution
Exhibit "B" Summary of Implementation Plans
Exhibit "C" Tier 1 and Tier 2 Implementation Plans

Exhibit "A"

RESOLUTION ADOPTING CERTAIN PSEG LONG ISLAND IMPLEMENTATION PLANS FOR THE ISAIAS TASK FORCE REPORT RECOMMENDATIONS AND EXTENSION OF THE PROPOSED 180-DAY REPORT

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, the Task Force has submitted to the Board 10 Implementation Plans recommended for the Board's approval; and

WHEREAS, the 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 Recommendations attached hereto as **Exhibit "C"**; and

BE IT FURTHER RESOLVED, the Board hereby directs 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

BE IT FURTHER RESOLVED, that the Board hereby extends 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.

Dated: January 27, 2021

Exhibit "B"

Summary of PSEG Long Island Implementation Plans (PIP) Tier1 and Tier 2

Date Issued	Recommendation No	Tier	Recommendation	End State	Deliverable	Individual PIP/ARTIFACT Received	Accept or Reject	Comments
			Appendix 2 List Of 90-Day Report Recommendations					
	Section 4		**Customer Communications and Outage Management Systems**					
11/18/20	4.02	1	PSEG Long Island needs to urgently engage qualified expert consultants to guide them through the telephony redesign process.	PSEG Long Island has an active contract with qualified telecommunications engineering consultants (with network engineering experience in both PSTN, data networks, and mixed-vendor voice communications systems).	Telecommunications consultants engaged		No revised PIP submitted	Subject to staff interviews.
11/18/20	4.03	2	For the long term, PSEG Long Island needs to strengthen its voice communications engineering and project management staff.	1. PSEG Long Island has staff with expert-level knowledge of modern voice communications engineering including (a) telephony technology (PSTN and IP), (b) voice/data networks, (c) modern elastic cloud-based call centers, (d) voice communications security. 2. PSEG Long Island has experienced project management staff with a track record of driving complex multi-vendor IT projects to completion.	1. PSEG Staff Job Descriptions and Position Requirements (Qualifications). 2. Recruitment plan. 3. Staff positions filled.	4.03_PIP_TELECOM	Resubmit in February	The project plan does not address the key goals and deliverables of this recommendation which include the following: - Plan to hire staff with expert-level knowledge of modern voice communications engineering including (a) telephony technology (PSTN and IP), (b) voice/data networks, (c) modern elastic cloud-based call centers, (d) voice communications security. - Plan to hire experienced project management staff with a track record of driving complex multi-vendor IT projects to completion.
11/18/20	4.04	2	Explore integrating the high-volume voice communications design into a more powerful all-encompassing call center design.	1. PSEG Long Island has a call center with a simplified, highly scalable on demand, distributed architecture to ensure resiliency to deliver both normal IVR and call center functions. Ideally, one system should accommodate normal blue-sky loads and on-demand very high volume Isaias-type loads.	"1. Next-gen Call Center Business Case and Requirements (RTM). 2. System Procurement and Detailed Implementation Plan. 3. Solution Design and Systems Specifications 4. System delivery and production."	4.04_PIP_TELECOM	Accept with comments	Please add a Detailed Implementation Plan per our provided Deliverables. Please add LIPA review and sign-off steps for key deliverables, including Requirements, Solution Design (high and low level) and Implementation Plan.
11/18/20	4.05	2	Develop a more scalable Inbound Contact Center.	"1. The current CISCO/Nuance/Nice Contact Center is upgraded to current-version software. 2. The current call enter has been upgraded to SIP technology and calls can be received from customers usinng the VOIP/SIP technology. 3. Capacity of the call center is greatly expanded utilizing the SIP technology."	"1. Next-gen Call Center Business Case and Requirements (RTM). 2. System Procurement and Detailed Implementation Plan. 3. Solution Design and Systems Specifications 4. Solution resilience and redundancy Plan 5. System delivery and production."	4.05_PIP_TELECOM	Accept with comments	Please add a Detailed Implementation Plan per our provided Deliverables. Please add LIPA review and sign-off steps for key deliverables, including Requirements, Solution Design (high and low level) and Implementation Plan.
11/18/20	4.06	2	Configure Kubra to Leverage Kubra's "Storm Mode."	Activation of Kubra system 'storm mode' settings and process changes tested and procedures documented and trained on. System data administrator(s) trained with roles and responsibilities defined. Processes and procedures for monitoring and corrective or preventive actions developed, documented and tested, including for backup/alternative data source and Outage Map adjustments. Procedures in place to	Kubra systems configured, operated and managed per recommendation. Configuration items is CMDB. All tests completed and accepted.	4.06_PIP_KUBRA STORM MODE/ 4.06 ARTIFACTS	PSEG Marked Complete; LIPA to Verify	LIPA will review completion and report to Board on status in February.
11/18/20	4.07	2	Ensure that the Municipal Portal is more resilient and prepare a backup Mode of Operation in case of OMS failure.	The Municipal Portal performs in a responsive manner with maximum response time for outage reporting and requests for status updates limited to known time value in seconds and not minutes. In the event an OMS failure occurs or if the OMS response time exceeds the Municipal Portal's maximum response time, the system informs appropriate personnel who can then take action to configure the system to switch to backup Mode of Operation which does not rely on OMS while its operation is being restored. The backup Mode of Operation may have limited functionality but must include appropriate activation and deactivation processes accompanied by appropriate customer communication and notifications. OMS failures due to message overload should (in the long term) be addressed by architectural changes through asynchronous buffering.	1. Municipal portal which either implements request buffering or an alternate way to work asynchronously with the OMS whereby guaranteeing timely response in such a way that the end users never experience a slow portal. 2. Implementation of alert message which the system sends to a support personnel when the response time from the OMS cross a pre-defined (configurable) threshold value (in seconds). 3. A list of steps/actions which a support personnel should take to configure the Municipal Portal to work in offline mode while the OMS is being restored back to normal operation (including customer comm steps). 4. A list of steps/actions which a support personnel should take in order to bring the OMS back to normal operation (including customer comm steps).	4.07_PIP_DIGITAL	Resubmit in February	The project plan does not address the key goals and deliverables of this recommendation. Specifically, it does not provide a plan to deliver the following: 1) Municipal portal that either implements request buffering or an alternate way to work asynchronously with the OMS whereby guaranteeing timely response in such a way that the end users never experience a slow portal. Please note that a file-based approach is not request buffering. There is nothing in the proposed plan that addresses municipal portal operation if the OMS is down or is completely non-responsive. 2) Implementation of an alert message which the system sends to support personnel when the response time from the OMS crosses a predefined (configurable) threshold value (in seconds). 3) A list of steps/actions that support personnel should take to configure the Municipal Portal to work in offline mode while the OMS is being restored back to normal operation (including customer comm steps). 4) A list of steps/actions that support personnel should take to bring the OMS back to normal operation (including customer comm steps).
11/18/20	4.08	2	Execute a communications plan with local emergency and municipal response officials to confirm municipalities' knowledge of the Municipal Portal and describe efforts to fix its operation from what they experienced during Isaias.	1. Emergency Communication Plan materials targeting local municipal and emergency response officials have been developed, approved, and distributed. This plan should serve as a full-fledged handbook/operations manual for emergency communication facility (municipal portal) and provide information on the improvements made to the municipal portal as a result of LIPA recommendations. 2. PSEG Long Island offers training for municipal and emergency response officials on the municipal portal operation and backup processes. Adequate communication and publicity channels exist to ensure that relevant people in municipalities have awareness of the municipal portal, its uses, and operational modes.	1. Emergency Communication Plan/Handbook/ Operations Manual for Municipal and Emergency Response Officials. 2. Training program to support.	4.08_PIP_MUNI PORTAL	Accept with comments	Please incorporate the training materials (manuals/presentations) and establishment and delivery of the training program into the Project Deliverables and the Project End State and Success Criteria. The current End State (sending an outreach communication and confirming receipt) covers only the first steps of the Work Plan.
11/18/20	4.11	1	Ensure SCADA sensor reports have priority over other outage reports arriving to the OMS.	OMS is fixed and SCADA reports to OMS are properly processed and have priority over other outage reports (e.g., IVR, customer reports).	OMS Configuration Document (Consolidate with 4.12)	n/a	n/a	See 4.12
11/18/20	4.12	1	Systematically test the OMS system to ensure that concrete root causes are identified and remedied. If the errors are due to system defects, then demand accountability from the system vendor for timely fixes. Ensure that root causes, not just symptoms, are addressed.	Root causes for failures in the OMS (and feeder systems) have been identified and fixed. OMS functional and technical performance criteria (acceptance criteria) have been established and agreed upon by LIPA and the OMS system passes tests based upon such criteria. This includes and enhances 3.2.2.3, emphasizing systematic root cause identification and validation. Systems deployed to production	Deployed remediated and tested OMS, acceptance test package. Final OMS Configuration Document. All configuration items in CMDB. Business and technical sign-off.	4.12_PIP_OMS	Resubmit in February	Insufficiently responsive to the urgency, insufficient information and insufficient rigor given the criticality. The timeline for implementation is too long in the face of risk, and the May 2021 implementation date is too close to the start of the next Hurricane season. The information that is presented in the PIP falls short of demonstrating that infrastructure is in fact a root cause of the issues. The Work Plan indicates that the OMS Causal Document was updated as of 1/8/21 with the CGI recommendations for re-platforming, but the embedded Causal Document is dated 9/14/20 and only includes the earlier determination that infrastructure is not a root cause of the issues. Given the big uncertainty that the proposed re-platforming will resolve the issues, LIPA is concerned that there is considerable residual risk to the customers that has not been mitigated. The plan does not demonstrate an appropriate level of contingency planning given the uncertainty, and also does not demonstrate the commitment to configuration management that is needed to mitigate the risk of introducing new issues given the magnitude of the proposed re-platforming change. Remediation of the identified database issues should be clearly identified in the Work Plan. Has PSEGLI checked with Oracle (the manufacturer of the database machine) on the database issues per LIPA's verbal recommendations? We also note that the Risk Management Plan is proforma copy and paste and has not considered the myriad and highly consequential risks associated with such an initiative. Please provide a more thorough and thoughtful risk management plan. Additionally, ensuring vendor and internal resource availability and sufficiency should be part of the work plan; not assumed. PSEGLI's complete reliance on CGI recommendations, who have not demonstrated a great track record is not prudent. Note that we have previously recommended that PSEG-LI get additional experts and continue to explore software or system configuration or other interconnected systems related root causes instead of throwing hardware upgrades at the issue without having a credible theory behind the diagnostic.
11/18/20	4.13	1	After the OMS faults are diagnosed and repaired, thoroughly stress-test the CAD system and the ESB to ensure there are no independent defects affecting either system.	CAD and ESB are stress tested against the repaired OMS system and all tests pass established acceptance criteria (as in 4.12).	Consolidate with 4.12	4.13_PIP_OMS	Resubmit in February	See 4.12
11/18/20	4.14	1	Accelerate the deployment of the mobile application for foreign crews and/or their crew guides ensuring that procedures are integrated into the ERP.	Hardware, software, and devices ready for deployment to up to 1000 foreign crew teams. All onboarding process, training, support, and documentation completed. Testing (including load testing) completed.	Deployment record. All configuration items in CMDB. Business and Technical Sign-off.	4.14_PIP_FIELD MOBILITY	Resubmit in February	The revised plan is non-responsive to the Board's adopted recommendation. It does not fully address the objection raised in the earlier PIP submittal. Phase 2 does not need to wait for CGI 6.7 and should be started as soon as possible. Apparently, the plan is to wait for a 6.7 feature. We have not seen appropriate justification for that especially when the urgency is required. The plan does not include steps in the design process to roll out the app to mutual aid utilities and contractors. Is any interim process possible to enable the Field app to communicate back to the RDAs or OMS using v5.5? The timeline for implementation of 8/2021 is too long. Consider evaluating commercial products capable of integrating to 5.5 or assess alternative ways to achieve OMS 5.5 integration. Please resubmit with a more aggressive schedule and a stronger technical approach.
11/18/20	4.16	1	Install standby hardware resources for use during peak demand.	Standby resources acquired and deployment tested/ exercised. Procedures developed.	System and process documentation for deployed standby hardware resources. All configuration items in CMDB.	4.16_PIP_OMS (REVISED PIP)	Resubmit in February	Insufficiently responsive to the previous comments and the urgency. The timeline for implementation is too long, and the May 2021 implementation date is too close to the start of the next Hurricane season. We haven't seen any plans for backup standby hardware provisioning for the current OMS in production. Please revise in conjunction with and in light of our responses to PIP 3.2.2.3, 4.12 and 4.13, which address the re-platforming that this PIP is dependent on.
11/18/20	4.17	1	Re-architect the inter-system message queuing applications for greater dynamic stability under highly demanding workloads.	Queuing messages in the ESB are setup as asynchronous	All configuration items in CMDB.	Accepted in December - Resubmitted 4.17_PIP_DIGITAL	Accept with Comments	Two of the initial deliverables viz "Proposed Architecture" and "Detailed Roadmap and Implementation Plan" are already past due. Please deliver these artifacts no later than 1/24/22.
11/18/20	4.18	1	Monitor application performance and error logs of all mission critical application systems, such as OMS, CAD, SCADA, ESB, etc.	All mission critical application performance data and logs and error logs are monitored 24x7 in NOC. Processes and procedures including thresholds and corrective or preventative actions are established, documented, tested and trained for. This expands on the specific monitoring recommendations in the 30 Day Report (3.2.2.4, 3.2.2.5, 3.2.2.6, 3.2.2.7, 3.2.2.8 and 3.2.4.2) to encompass structured and documented monitoring of all mission critical systems.	System and process documentation for monitored application systems, including telecom systems. Application monitoring part of NOC operations documentation.	4.18_PIP_OMS	Resubmit in February	The revised plan is non-responsive to the Board's adopted recommendation. It does not fully address the objections raised in the earlier PIP submittal. More details needed on monitoring objectives, identifying problem areas, context/ baseline, and scenarios are missing. The timeline for implementation of 5/21 is too long. Please provide an updated detailed project schedule by subtasks and accelerate project completion based on removing OMS 6.7 fix dependency. Implement a comprehensive monitoring solution for OMS 5.5, currently in production. Implement a solution that can easily be ported to OMS 6.7 without much reengineering when 6.7 is ready. Consider setting up priorities within systems/applications based on criticality levels. The technical approach section is weak. Consider performing the gap analysis on the capabilities of current monitoring application/s used at PSEG LI. The plan assumes that off-the-shelf monitoring tools will satisfy the requirements.
11/18/20	4.19	1	As part of storm preparation ensure that all application error and debug conditions have been cleared and the system is operating normally.	Policy reviewed and documented in IT run book and in ERP.	Policy in IT run book and ERP	4.19_PIP_OMS	Accept with comments	Recommendation Header says project will finish on 5/1/21 -- But project plan indicates 3/1/21
11/18/20	4.20	1	Accelerate the testing and integration of AMI data to the OMS sys	n/a	n/a	n/a	n/a	See 5.4.2
11/18/20	4.21	2	Complete the integration of the MDMS and OMS to report the meters' power restoration events.	OMS reflects the up to date current information about status of all the AMI meters deployed in the field.	1. Report showing status of all the AMI meters being tracked in OMS and its comparison with status of all the meters tracked in MDMS. 2. Testing report for a sample event showing OMS updates as and when a meter's power is interrupted and restored. 3. A training manual which can be used to train support personnel on how to interpret and respond to various MDMS events as shown by the OMS.		No PIP submitted	Submit PIP
	Section 5		**Emergency Response Planning and Preparation**					
11/18/20	5.16	2	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.	1. 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. 2. OMS restoration verification protocols leverage data from AMI systems to efficiently identify nested outages.	1. Restoration Verification Review Report (Findings and Recommendations). 2. Implementation Plan for (1) above. 3. Technical implementation plan for incorporation AMI data into OMS to leverage identification of nested outages. 4. Implementation of (3) above.	5.16_PIP NO OMS SCENARIO	Resubmit in February	LIPA has provided a substantial amount of feedback and commentary to the initial draft of the Restoration Contingency Plan for Critical System Failures document. We have also met with the team several times to explain the feedback. However, the Project Implementation Plan (PIP) cannot stop with producing a document. It needs to include steps to test the plan, train on the plan, and generally incorporate the plan in its total all-hazards emergency management framework.
11/18/20	5.17	2	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.	1. Benchmark of LSE customer list management and maintenance process has been conducted utilizing at least 3 New York utilities. 2. Best practices from (1) incorporated in PSEG Long Island LSE management procedures. 3. 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 recertification of 95% or more of LSE customers.	5.17_PIP_LSE CUSTOMER ENHANCEMENTS	Resubmit in February	The PIP proposes a plan to benchmark the LSE Best Practices but does not provide a corresponding plan to implement the corrective actions learned from the benchmarking exercise.
	Section 6		**PSEG Lacks Transparency**					
11/18/20	6.01	1	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 greater rigor.	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.		6.01_PIP_CATRR	Resubmit in February	The timeline of 6/30/21 for delivering CATRR is lengthy for the amount of work involved. Is a CATRR delivered in the middle of the next hurricane season useful? Also, the timeline of 12/31/21 to implement an improved process for future storms is too long considering actionable recommendations could arise from this CATRR to be implemented before the next hurricane season. Please resubmit with a more reasonable schedule.
	Section 7		**Leadership and Management**					
11/18/20	7.01	1	Appoint a dedicated "turnaround" CIO at PSEG Long Island.	Dedicated Long Island CIO who reports directly to PSEG Long Island's Chief Operating Officer and has budgetary control of PSEG Long Island IT/OT investments appointed. Seasoned CIO with extensive turnaround experience and track record transforming non-performing and Chaotic organizations into high performing IT organizations.	Dedicated LI CIO	7.01_PIP_CIO	Resubmit in February	The revised plan is non-responsive to the Board's adopted recommendation. It does not address the objections raised on the previous PIP submittal. The organization chart still shows CIO reporting to NJ IT, which is not consistent with the recommendation. Include LIPA approval of the job description and submission of the final candidate to LIPA for approval in PIP.
11/18/20	7.02	2	Appoint a dedicated CISO at PSEG Long Island.	The Executive-level position, dedicated to PSEG Long Island- responsible for establishing and maintaining the Long Island's enterprise Cybersecurity strategy and program that protect LIPA's Information assets and compliance. Responsible for building a Long Island-centric Cybersecurity organization solely dedicated to Long Island's needs and priorities. Seasoned CISO with extensive experience with establishing and maintaining enterprise Cybersecurity strategy, program and, Risk assessment& Mitigations.	Dedicated LI CISO	7.02_ARTIFACTS_CISO	Resubmit PIP in February	The Artifact is non-responsive to the Board's adopted recommendation. It does not address the objection raised in the earlier PIP submittal. The position that PSEG has hired is a Manager of IT Security not a CISO. That is not consistent with this recommendation. Please create a PIP for hiring this position and resubmit in February. Include LIPA approval of the job description and submission of the final candidate to LIPA for approval.
			Appendix 3 List Of 30-Day Report Recommendations					
	Section 3		**Customer Communications and Outage Management Systems**					
09/23/20	3.2.1.1	1	PSEG Long Island should complete implementing the planned telecommunication design changes and conduct additional capacity testing as soon as possible.	Blue Sky and Storm Days Telephone System tested and deployed. Detail design, specifications, configuration of the system is documented (as deployed). Periodic testing plan is documented and activated.	Detailed design, specifications, configuration and test documentation for a tested and deployed Blue Sky and Storm Days Telephone System with a periodic testing plan. All configuration items in CMDB.	3.2.1.1_PIP_TELECOM V2	Resubmit in February	LIPA has repeatedly urged PSEG Long Island to conduct a comprehensive end-to-end testing of the phone system that is similar in volume and velocity as encountered in Tropical Storm Isaias. The tests conducted so far have not satisfied this requirement. To have satisfactory end-to-end testing, the test plan needs to include the following: (a) sustained volume of at least 5,000 concurrent calls for at least 1 hour, (b) paper analysis of carrier and Intrado capacity that considers NE USA storm scenarios where multiple utilities are utilizing Intrado and carrier bandwidth, (c) comprehensive end-to-end testing. Comprehensive end-to-end testing must include the following test characteristics: (a) mix of mobile phones and land-line calls into PSEG-LI's storm line (0075), (b) land-lines must originate in LATA-132, (c) Call journey path must include a combination of 5,000 concurrent calls that passes through the Intrado IVR all the way to the PSEG-LI Enterprise Service Bus with ultimate message acknowledgement from OMS, (d) a parallel call journey path simulating the "wire-down" scenario pushing a minimum of 575 concurrent calls originating from the Long Island customer premise that would be redirected by the Intrado HVCA IVR to the PSEG-LI call center and answerable by PSEG-LI customer service representatives. Also, keep in mind, the end-to-end test scenario is just not a technical demonstration but a demonstration of how technology, processes, and people are orchestrated during a real storm and could reveal potential failure modes in the entire system. In the tests conducted by PSEG-LI, the requirements for comprehensive end-to-end testing have not been met. The tests conducted to date have not exercised all the journey paths in an end-to-end model. In fact, the wire-down calls did not originate in Long Island and did not utilize the 0075 storm number. Instead, they originated in Intrado and terminated in the PSEG-LI call center. Similarly, there have been no performance tests that originate in Long Island and terminate in the OMS system. We agree that some progress has been made but the system is far from ready for acceptance. We also observe that the additional tests that PSEG-LI has conducted because of LIPA's imploring have frequently resulted in findings of significant failures. We have also urged PSEG-LI to conduct the tests during the day instead of around midnight, which provides false assurance. Daytime calls (especially Monday mornings or Thursday afternoons) are more likely to simulate a real-life stress test scenario.
09/23/20	3.2.1.3	1	The existing infrastructure for handling calls within the PSEG Long Island Call Center should be upgraded to a more recent version. PSEG Long Island should modernize its call center infrastructure to a technology that uses the newer "SIP Trunking" technology.	Upgraded and modernized Long Island Call Center is deployed and in production.	Project Implementation Documentation (Project Charter, Project Plans, RTM, Test Documentation, Final sign-off). All configuration items in CMDB.	3.2.1.3_PIP_TELECOM	Accept with comments	The timeline for implementation is unreasonably prolonged. Please review the subtasks to shorten the time required.
09/23/20	3.2.1.5	1	PSEG Long Island should develop appropriate capacity monitoring and management processes to support evidence-based demand forecasting and capacity planning.	PSEG Long Island has capacity analysis and planning processes in place.	Process and results documentation	3.2.1.5_PIP_TELECOM V2	Resubmit in February	The revised plan does not sufficiently address the comments provided for the previous submission. The plan still does not include a discussion of what specific data elements will be monitored and why (elements that will drive the capacity planning solution). The expectation is that these will be determined based on the Project Objectives and End State, outlined in the PIP Technical Approach, and detailed in the requested Requirements Document (RTM). The resulting RTM should then drive the solution design and the steps taken with each vendor. Instead, the current work plan proposes the development of an RTM as the end-goal. In fact, the proposed work plan does not address the steps needed to undertake a solution design and implementation of the solution. Please include the development of a requirements document (RTM) as an early part of the project plan, then propose steps to a solution design, and the implementation of the design, and how that would be cutover to production. PSEG-LI should also obtain LIPA approval on the requirements and the solution proposed.
09/23/20	3.2.2.3	1	Work with CGI to obtain and implement fixes for identified application defects, which could include upgrading to a more recent version of the OMS software.	Application defects in the OMS have been identified and fixes obtained, tested and deployed.	Remediated and tested OMS to required capacity.	3.2.2.3_PIP_OMS	Resubmit in February	See 4.12
09/23/20	3.2.2.4	1	Automate monitoring of OMS and CAD performance at the application level to detect application failures and give administrators an opportunity to adjust the configuration settings that affect performance.	Deployed automated application level monitoring of OMS and CAD performance allowing administrators to make adjustments in case of application failures	System and process documentation for tested and deployed automated monitoring	3.2.2.4_PIP_OMS	Resubmit in February	The revised plan is non-responsive to the Board's adopted recommendation. It does not address the objection raised in the earlier PIP submittal. Indeed, the monitoring system's deployment (Identified in the original PIP), the fundamental requirement of this recommendation, is somehow missing from the revised plan as a deliverable. Details are still needed on monitoring objectives, identification of problem areas, context/baseline, scenarios are still missing. The technical approach is weak and does not speak to monitoring. It is focused on changes to the application or web services.
09/23/20	3.2.2.5	1	Automate monitoring of the OMS and CAD at the infrastructure level to detect infrastructure failures and give administrators an opportunity to restore normal operating conditions.	Deployed automated infrastructure level monitoring of OMS and CAD performance allowing administrators to take action in case of infrastructure failures	System and process documentation for tested and deployed automated monitoring	3.2.2.5_PIP_OMS	Resubmit in February	The revised plan is non-responsive to the Board's adopted recommendation. It does not address the objections raised in the earlier PIP submittal. The revised plan still does not include additional tools/procedures to support/enable corresponding actions which an administrator could take to restore normal operations.
09/23/20	3.2.2.6	1	Automate monitoring of inbound SCADA events to the OMS, to be able to detect events or event volumes that cause unresponsiveness and allow operators to restart failed services.	Deployed automated monitoring of inbound SCADA events to the OMS allowing administrators to take action in case of events or event volumes that cause unresponsiveness	System and process documentation for tested and deployed automated monitoring	3.2.2.6 ARTIFACT-CHG0000139117 FOR SCADA ALERTS/3.2.2.6 ARTIFACT_OMS_MONITORING	PSEG Marked Complete; LIPA to Verify	LIPA will review completion and report to Board on status in February.
09/23/20	3.2.2.7	1	Automate monitoring of inbound outage reports to the OMS, to be able to detect and eliminate erroneous reports that may arrive from any source.	Deployed automated monitoring of inbound outage reports to the OMS allowing administrators to detect and eliminate erroneous reports from any source.	System and process documentation for tested and deployed automated monitoring	3.2.2.7_PIP_OMS	Resubmit in February	This PIP disregards the stated requirements of the recommendation: "Automate monitoring of inbound outage reports to the OMS, to be able to detect and eliminate erroneous reports that may arrive from any source." The PIP claims that the NOC is already monitoring these elements but does not say how, whether the process is automated and whether it is real time detection. If the end-state has already been achieved then we suggest that this recommendation be marked as complete and required deliverables submitted in February. The PIP also disregards LIPA's requirement (see Jan comments) that written requirements (RTM) be developed and obtain LIPA sign-off. Also the PIP lacks focus on the recommendation and seems to be more a copy and paste from another PIP. Please review.
09/23/20	3.2.2.8	1	Irrespective of whether the failure mode is corrected within the IVR, the OMS should have automated monitoring of data quality arriving from IVR to detect potentially duplicate or otherwise bad information.	Deployed automated monitoring of data quality from the IVR to the OMS allowing action to be taken in case of duplicate or otherwise bad information.	System and process documentation for tested and deployed automated monitoring	3.2.2.8_PIP_OMS	Resubmit in February	Insufficiently responsive to previous comments. The recommendation is for automated monitoring on the OMS end irrespective of whether the failure mode is corrected in the IVR, hence the requested tasks for identification of all potential erroneous data forms, data correction options and potential performance impacts need to be conducted at the OMS level regardless of the originating IVR leg, which is not clearly reflected in the work plan. The request to obtain LIPA sign-off on requirements and proposed solution is not fully addressed (a LIPA sign-off task has been added only for the RTM for one part of the solution, with a duration of a single day). Re-platforming is listed as a dependency, but the impacts are not clearly addressed - the work plan should clearly identify the tasks that have this dependency and ensure alignment of dates with OMS plans; and the technical approach should clearly identify the OMS environments that are planned for use for the various tasks.
09/23/20	3.2.2.9	1	The IVR and OMS communication protocol should be reviewed in detail and redesigned so that all messages between the two components are agreed, understood, verified to be operational and tested against error conditions such as sending duplicate outage reports.	Duplicate outage reports are gracefully handled.	Tested and deployed updated IVR and OMS protocols. Configuration items in CMDB.	3.2.2.9_PIP_OMS	Accept with comments	The previous comment is not fully addressed. The request to develop written requirements has been met by the addition of an RTM under the Primary Task for one part of the proposed solution (the Backup Leg changes). We will tentatively accept this contingent on the RTM (due for completion on 1/22) being for the overall project and not just for the Backup Leg changes. The request for LIPA sign-off on the solution has not been addressed. Note also that re-platforming is listed as a dependency, but the impacts are not clearly addressed - the work plan should clearly identify the tasks that have this dependency and ensure alignment of dates with OMS plans; and the technical approach should clearly identify the OMS environments that are planned for use for the various tasks.
09/23/20	3.2.3.1	1	At the beginning of storm planning and throughout the storm, designate a system data administrator dedicated to monitor, on a continuous basis, the timeliness, accuracy, and integrity of the information coming from OMS to Kubra.	System data administrator(s) trained. Roles and responsibilities defined. Processes and procedures for monitoring and corrective or preventive actions developed, documented and tested, including for alternative data source and Outage Map adjustments per 3.2.3.2 and 3.2.3.3.	Kubra systems data administrator role, processes and procedures documentation, including training and designation plans.	3.2.3.1_PIP_DIGITAL	Accept	
09/23/20	3.2.3.5	2	Assign a data administrator to work with Communications to use banner alerts and other widely applicable messages. When wide-scale text messages need to be sent because the restoration effort is not yet precise enough to give property-specific updates, include a periodic reminder text every few hours to let the community know when more precise estimates will be available instead of providing inaccurate OMS-generated ETRs.	PSEG Long Island personnel have been trained to work as per the new banner text SOP for handling situations when the restoration efforts are not precise enough to give property-specific updates.	A SOP document which outlines the actions each relevant personnel must take in order to enable the banner texts and the periodic reminder texts. The SOP must also include the criteria under which it needs to be activated.	3.2.3.5_ARTIFACT_DIGITAL REVISED	PSEG Marked Complete; LIPA to Verify	LIPA will review completion and report to Board on status in February.
09/23/20	3.2.3.6	2	If OMS-generated ETRs are not accurate because there are extenuating circumstances in a particular area, the Outage Map data administrator should work with a restoration coordinator to override the information in the OMS.	PSEG Long Island personnel know how to detect when OMS generated ETRs are not accurate and they also know what actions to take and who to involve for such actions. The new ETR Manager is responsible for the effective operation of this process.	"1. A process document along with its implementation plan which outlines how to detect this issue and how to go about handling it. 2. A training manual which can be used to train the data administrators and the restoration coordinators."	3.2.3.6_ARTIFACT_DIGITAL	PSEG Marked Complete; LIPA to Verify	LIPA will review completion and report to Board on status in February.
09/23/20	3.2.4.2	1	Monitor system logs and health alerts to proactively detect incipient failures within the system or the infrastructure, especially during a storm.	Monitoring of website and mobile app system logs and health alerts to proactively detect incipient failures within the system or the infrastructure in place	Technical and process documentation for proactive website and mobile app monitoring	3.2.4.2 ARTIFACT_DIGITAL	PSEG Marked Complete; LIPA to Verify	LIPA will review completion and report to Board on status in February.
09/23/20	3.2.4.3	1	Introduce the capability to quickly decouple the web and mobile apps from the OMS, so that when unresponsiveness is detected, alternate messaging can be provided to the customer and the OMS can be relieved of incoming transactional pressure.	Web and mobile apps are functional in the absence of OMS. Outage reports are directed to an alternative data sink which can be consumed by alternate and deferred pathways.	Design and process documentation for tested and deployed ability to decouple web and mobile apps from OMS.	Accepted with comments in December- Resubmitted 3.2.4.3_PIP_DIGITAL	Accept with comments	The project plan does not address the following: "The data not sent to OMS will have to be resynced with OMS after transactional pressures are relieved"
09/23/20	3.2.5.3	2	PSEG Long Island should also work to install end-to-end quality control measures for communication of ETRs. Consistency across communications channels is critical in developing confidence in the restoration effort.	When a customer queries for ETR via different channels (say text and web portal), the system returns the same response.	1. Provide test report showing consistent response across all the channels when queried for a status update. 2. Document showing all the system and or process updates which were done in order to reach the end state	3.2.5.3_PIPETR QUALITY	Accept	
09/23/20	3.2.6.1	2	Test and deploy the mobility application to enable foreign field crews, or their PSEG Long Island crew guides, to receive restoration work assignments and report the completion of restoration orders electronically. Update the ERP to document the work processes required to dispatch work to foreign crews electronically and train the involved staff in this updated work process.	1. Deployment of fully tested mobility application which works in detached mode in addition to working when connected via network service. It is able to sync its updates with the backend system and download new work orders from it as and when it is able to connect to the network. 2. The ERP has a clearly documented SOP for dispatching work to foreign crews electronically. 3. Training program is available for training the staff involved in dispatching work orders to foreign crew.	1. Updated mobility app which is capable of operating in offline mode if the device loses network connectivity. It is able to sync up with the backend systems as and when it is able to connect with the backend systems. 2. SOP for personnel tasks to dispatching work to foreign crew. 3. Training material for training staff responsible for dispatching work to foreign crew.	3.2.4.3_FILED MOBILITY_UPDATED	Resubmit in February	See 4.14
	Section 5		**Storm Resiliency**					
09/23/20	5.4.2	1	Accelerating the deployment of smart meters and the full integration of smart meters with OMS so that outage reports will be available to OMS more rapidly and embedded outages (i.e., small-scale outages downstream of larger-scale outages) will be more readily identified, thus enhancing the efficiency of job dispatch. (PIP was split)	AMI/OMS integration complete and tested.	Revised Project Plans.	5.4.2 PIP AMI-OMS INTEGRATION	Resubmit in February	The revised plan is non-responsive to the Board's adopted recommendation. It does not fully address the objection raised in the earlier PIP submittal. Please provide updated detailed project schedule by subtasks and accelerate project completion based on removing dependency of OMS 6.7 fixes. Please also describe the scope of implementation by requirements or features to be implemented.

LIPA is available to discuss any item that needs further clarification.

PSEG Long Island

Project Implementation Plan

for

Isaias Task Force Recommendation Implementations

Recommendation No. 4.04

Project Title: Explore integrating the high-volume voice communications design into a more powerful all-encompassing call center design.

Table of Contents

1. Project Definition

This project includes efforts to modernize the PSEG LI Contact Center, replacing the existing premise based infrastructure with an industry leading cloud based contact center as a service (CCaaS) platform. As part of the assessment of providers and design of the target state architecture, consolidation of operations between the existing HVCA / PSEG LI Contact Center split and integration with parallel efforts to incorporate enhanced digital channels will be considered. The finalized design, schedule and outcomes of this implementation plan will be augmented to include such consolidations where deemed optimal to PSEG LI's operations.

1.1. Project Purpose, Objectives, and Success Criteria

Project Objectives:

The objectives of this project are to migrate the existing contact center environment to a modern solution that will allow the contact center to take advantage of current communications protocols and systems. The new solution will be designed to meet current day-to-day needs as well as be able to handle specified call volumes during storm events. The success of the project will be defined as meeting all documented and approved requirements by various stakeholders as verified through testing and user acceptance.

***Project End State and Success Criteria**:*

Upgraded and modernized Long Island Contact Center solution and communications are deployed, migrated to and in production.

2. Project Deliverables:

Deliverable	Delivery Date	Comments
Requirements and High Level Design	2/12/2021	Likely to be revised after RFP and Vendor Selection Process. Will include operational changes / consolidations if deemed optimal
Low Level Technical Design	7/30/2021	
CCaaS Environment Build	1/7/2022	
User Acceptance Test Results	2/18/2022	
Final Sign Off	4/1/2022	

2.1. Assumptions, Dependencies, and Constraints

2.1.1 Assumptions:

- Project team will be available for design discussions and will have a designated resource who will confirm all decisions made for future improvements
- Existing work already completed for the proposed CCaaS project will be leveraged
- Vendor resources will be available to provide SME time to aid in the gathering of requirements, creating the design and specifications, etc.
- Procurement timelines will be expedited to meet project schedule
- Project will be approved to start immediately, will be funded and will not experience delays due to additional approvals

- Contact Center as a Service is an optimal model for PSEG LI over existing premise based model
- Target will be for CCaaS solution to handle storm volumes, without the need for a separate HVCA provider. Vendor responses, pricing and architecture considerations will ultimately determine whether or not this consolidation is pursued

2.1.2 Dependencies:

- PSEG LI Availability of external experts to assist in the design, planning, RFP creation and evaluation and implementation.
- Approval to start immediately and funds available to onboard SMEs

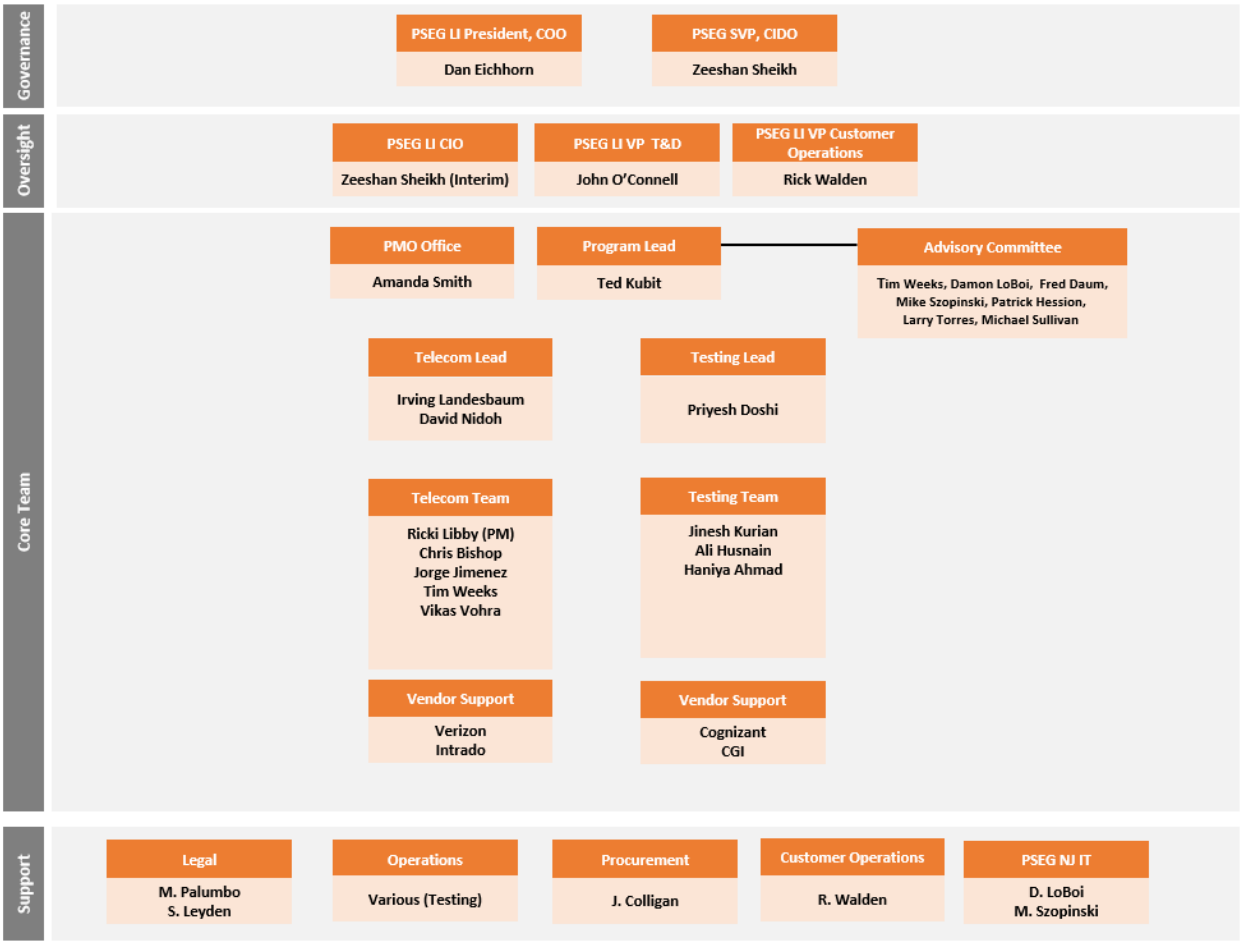
2.1.3 Constraints:

- The number of qualified resources with subject matter expertise.
- Competing projects and operational activities that further constrain available resources. Availability of vendor resources with requisite experience to engage quickly.

3. Project Structure

3.1. Internal Project Organization

The Telecom Team, Testing Team along with vendor support from other suppliers will implement this modernization project. The chart below shows the internal project organization and the groups responsible for the Telecom project:



3.1.1 Roles and Responsibilities:

Roles and responsibilities for the Telecom project are outlined in the table below:

Role	Name	Responsibilities
Steering Committee	Dan Eichhorn *(Chair)* Zeeshan Sheikh John O'Connell Rick Walden	• Championing the PSEG LI Storm Restoration initiative • Establishing guiding principles for the project • Ensuring project activities remained aligned with the guiding principles as *defined* • Providing guidance and input on *key project decisions* • Challenging the project team where appropriate • Approving major *changes to the project's scope, objectives, timelines, costs, etc.* • Acting as the decision maker for issues requiring *escalation* • Removing institutional barriers when *they arise by serving as a project advocate*
PSEG LI CIO	Zeeshan Sheikh (Interim)	• Ensuring *workstreams adhere to guiding principles as defined by project leadership* • Managing issues and decision making • Removing *obstacles that impede the success of the overall project Providing strategic guidance* • Challenging the project team where appropriate • Approve procurement of external parties (as needed)

Role	Name	Responsibilities
Advisory Committee Members	Tim Weeks Damon LoBoi Mike Szopinski Fred Daum Patrick Hession Larry Torres Michael Sullivan	• Providing guidance and input o*n 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 pr*oject team*
Team Lead	Kevin Planz *David Nidoh*	• Drive workstream tasks and deliver recommendations for Solution Design Specification • Provide support for Testing • Aid in the developme*nt functional requirements* • Provide input on requirement / design • Coo*rdinating Business Resources to support the project* • Key Point of contact to for questions from the vendor • Providing sign off for deliverables that require business *input/acceptance* • Delivering the project on time and on budget
Project Manager	Kevin Planz *Ricki Libby*	• Reporting overall status of the project to Stakeholders and Program Leadership • Identifying and escalating resource issues • Providing status reports for delivery to internal and external stakeholders (LIPA, DPS) • Manage resource*s, schedule, issues, risks and change requests* • Process development, requirements definition, • Providing subject matter expertise to th*e 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	Chris Bishop	• Process development, requirements defini*tion, functional design* • Technical Design • Supporting vendor questions and workshops • Testing Execution
Test Lead	Sikder Islam	• Test Script Development • Test Script Execution for Assembly / Unit Test • Test Execution

3.2. Other Stakeholders

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

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

4. Project Plan

4.1. Project Work Plan

More tactically, in order to achieve the objectives outlined in Section 2 of this document, PSEG LI has developed a strategic Project Plan comprised of the following activities:

Task	Recommendation	Pct Complete	Target Start Date	Target End Date
Recommendation	**Explore integrating the high-volume voice communications design into a more powerful all-encompassing call center design**	**0%**	**2/1/2021**	**04/01/2022**
Task	Develop Requirements and High-Level design	0%	Mon 2/1/21	Fri 2/12/21
Task	Develop RFP for release to CCaaS Vendors	0%	Mon 2/15/21	Fri 3/26/21
Task	RFP Selection Process	0%	Mon 3/29/21	Fri 5/28/21
Task	Internal Governance and Risk Review	0%	Mon 5/31/21	Fri 6/4/21
Task	Master Services Agreement and Statement of Work Drafted	0%	Mon 6/7/21	Fri 6/11/21
Task	Utility Review Board Presentation	0%	Mon 6/14/21	Fri 6/18/21
Task	Executed MSA and SOW back to Vendor	0%	Mon 6/21/21	Fri 7/2/21
Task	Assignment of Professional Services Team	0%	Mon 7/5/21	Fri 7/16/21
Task	Develop and Review Low Level Technical Design	0%	Mon 7/19/21	Fri 7/30/21
Task	CCaaS Environment Build	0%	Mon 8/2/21	Fri 12/3/21
Task	CCaaS QM and Survey Build	0%	Mon 12/6/21	Fri 12/17/21
	CCaaS WFM Build	0%	Mon 12/27/21	Fri 1/7/22
Milestone	CCaaS Environment Ready for Training and Acceptance Testing	0%	Fri 1/7/22	Fri 1/7/22
Task	Training	0%	Mon 1/10/22	Fri 1/21/22
Task	User Acceptance Testing	0%	Mon 1/24/22	Fri 2/18/22
Task	System Acceptance and Go/No Go for Go Live	0%	Mon 2/21/22	Fri 2/25/22
Milestone	System Approved for Go Live	0%	Fri 2/25/22	Fri 2/25/22
Task	Go Live Week	0%	Mon 2/28/22	Fri 3/4/22
Task	Stabilization Period	0%	Mon 3/7/22	Fri 4/1/22
Milestone	LIPA Task 4.04 Complete	0%	Fri 4/1/22	Fri 4/1/22

4.2. Risk Management Plan

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

Category	Project Risk	Mitigation

Resources	No holistic solution owner from PSEG LI to oversee entirety of solution	PSEG LI to designate a resource to be the holistic oversight for entire solution
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	Work with the vendor to quickly resolve impediments.
Schedule / Cost	Requirements not satisfied by existing CCAAS efforts	Aggressively work to hold to existing requirements gathered or adjust dates according before starting the project.
Schedule / Cost	Timely approval of the project not received	Gain project approval before starting the project and adjust schedule accordingly after project approval.
Program Management	Lack of Scope/Requirements control including changes needed to legacy IT systems	Lack of scope/requirements control is the leading cause of budget and schedule overruns for this scale of project. It will be critical to closely define project scope/requirements, quickly clarify any uncertainties as they arise, and escalate as required. Any changes in scope/requirements must be agreed-to by the executive steering committee.
Program Management	Additional recommendations for improvement are developed and will need to be added to this workstream	Additional recommendations that have activities similar to those addressed in this project will be identified and logically grouped within tracks. Resource requirements will be identified. Where necessary, contract resources will be hired to back fill normal job responsibilities
Infrastructure	Delays in equipment delivery and/or communications	Thorough project management and escalation procedures.

4.3. Issue Resolution Plan

Issues and risks will be identified by the PSEG LI Team and the PMO 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 get 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.

5. Technical Execution Plan

5.1. Technical Approach

5.1.1 Technical Improvements:

The entire call center infrastructure/solution will be replaced by migrating to a cloud based hosted solution. This will be a modernized call center solution allowing for the use of current IP based communications technologies that will allow maximum capability and flexibility once complete.

5.1.2 Process Improvements:

In addition to the many technical improvements a series of process enhancements will also be implemented. The details and extent of improvements will be based on the solution selected but the goals are to improve processes related to resource management especially during storms.

5.2. Quality Assurance Plan

1 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.
2 The deliverables will follow the following QA processes:
   a. Team lead review and signoff
   b. Peer Review (PSEG)
   c. Subject Matter Advisor Review as necessary
   d. PSEG Signoff by PSEGLI CIO and President & COO of PSEGLI
   e. Independent Verification and Validation by LIPA CIO

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. A final Project Closure Document will be delivered once all LIPA Recommendations in this implementation plan are completed.

Project Artifacts	Description
Requirements and High-Level design	Business Requirements and High Level Architecture to be used in RFP Process
RFP	Request for Proposals from CCaaS Vendors in the industry. Document will include business requirements and high level design
Low Level Technical Design	Detailed Design documenting specific features, functions and configurations required for the CCaaS vendor solution
CCaaS Vendor MSA	Master Services Agreement to govern CCaaS Vendor relationship and subsequent statements of work with PSEG

CCaaS Vendor SOW	Statement of Work to cover CCaaS implementation

Revision History

Name	Date	Reason for Changes	Version
David Nidoh	1/13/2021	initial draft	1.0 draft 1

PSEG Long Island

Project Implementation Plan

for

Isaias Task Force Recommendation Implementations

Recommendation No. 4.05

Project Title: Develop a more scalable Inbound Contact Center.

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1. Project Definition

This project is consolidated with recommendation 4.04 based on the very similar outcomes requested and the solution being proposed by PSEG LI. This includes efforts to modernize the PSEG LI Contact Center, replacing the existing premise based infrastructure with an industry leading cloud based contact center as a service (CCaaS) platform. Scalability will be a key element in the vendor selection and design of the new platform. Consolidation of operations between the existing HVCA / PSEG LI Contact Center split will be considered based on the scalability that can be achieved.

1.1. Project Purpose, Objectives, and Success Criteria

Project Objectives:

The objectives of this project are to migrate the existing contact center environment to a modern solution that will allow the contact center to take advantage of current communications protocols and systems. The new solution will be designed to meet current day-to-day needs as well as be able to handle specified call volumes during storm events. The success of the project will be defined as meeting all documented and approved requirements by various stakeholders as verified through testing and user acceptance.

***Project End State and Success Criteria**:*

Upgraded and modernized Long Island Contact Center solution and communications are deployed, migrated to and in production.

2. Project Deliverables:

Deliverable	Delivery Date	Comments
Requirements and High Level Design	2/12/2021	Likely to be revised after RFP and Vendor Selection Process. Will include operational changes / consolidations if deemed optimal
Low Level Technical Design	7/30/2021	
CCaaS Environment Build	1/7/2022	
User Acceptance Test Results	2/18/2022	
Final Sign Off	4/1/2022	

2.1. Assumptions, Dependencies, and Constraints

2.1.1 Assumptions:

- Project team will be available for design discussions and will have a designated resource who will confirm all decisions made for future improvements
- Existing work already completed for the proposed CCaaS project will be leveraged
- Vendor resources will be available to provide SME time to aid in the gathering of requirements, creating the design and specifications, etc.
- Procurement timelines will be expedited to meet project schedule
- Project will be approved to start immediately, will be funded and will not experience delays due to additional approvals

- Contact Center as a Service is an optimal model for PSEG LI over existing premise based model
- Target will be for CCaaS solution to handle storm volumes, without the need for a separate HVCA provider. Vendor responses, pricing and architecture considerations will ultimately determine whether or not this consolidation is pursued

2.1.2 Dependencies:

- PSEG LI Availability of external experts to assist in the design, planning, RFP creation and evaluation and implementation.
- Approval to start immediately and funds available to onboard SMEs

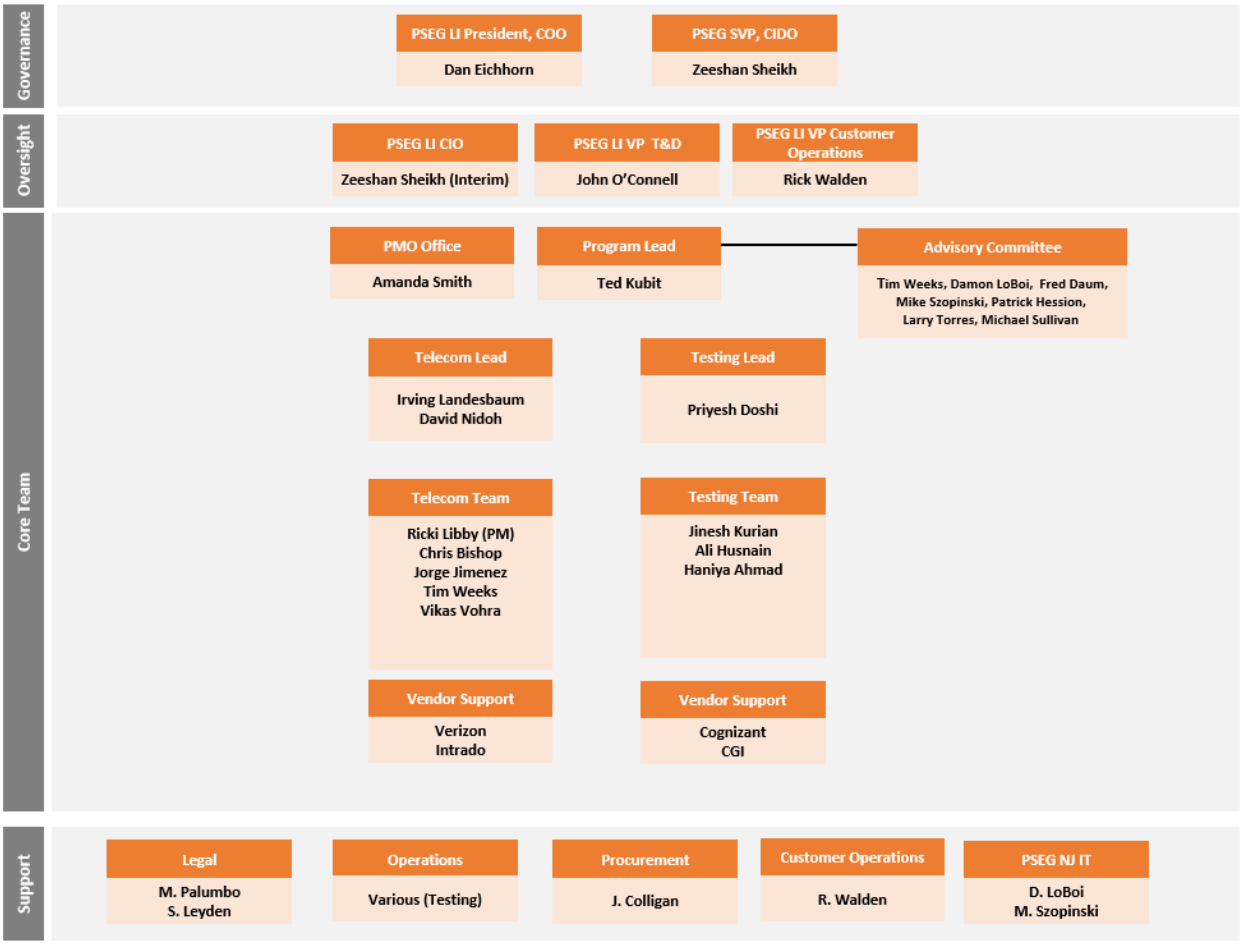
2.1.3 Constraints:

- The number of qualified resources with subject matter expertise.
- Competing projects and operational activities that further constrain available resources. Availability of vendor resources with requisite experience to engage quickly.

3. Project Structure

3.1. Internal Project Organization

The Telecom Team, Testing Team along with vendor support from other suppliers will implement this modernization project. The chart below shows the internal project organization and the groups responsible for the Telecom project:



3.1.1 Roles and Responsibilities:

Roles and responsibilities for the Telecom project are outlined in the table below:

Role	Name	Responsibilities
Steering Committee	Dan Eichhorn *(Chair)* Zeeshan Sheikh John O'Connell Rick Walden	• Championing the PSEG LI Storm Restoration initiative • Establishing guiding principles for the project • Ensuring project activities remained aligned with the guiding principles as *defined* • Providing guidance and input on *key project decisions* • Challenging the project team where appropriate • Approving major *changes to the project's scope, objectives, timelines, costs, etc.* • Acting as the decision maker for issues requiring *escalation* • Removing institutional barriers when *they arise by serving as a project advocate*
PSEG LI CIO	Zeeshan Sheikh (Interim)	• Ensuring *workstreams adhere to guiding principles as defined by project leadership* • Managing issues and decision making • Removing *obstacles that impede the success of the overall project Providing strategic guidance* • Challenging the project team where appropriate • Approve procurement of external parties (as needed)

Role	Name	Responsibilities
Advisory Committee Members	Tim Weeks Damon LoBoi Mike Szopinski Fred Daum Patrick Hession Larry Torres Michael Sullivan	• Providing guidance and input o*n 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 pr*oject team*
Team Lead	Kevin Planz *David Nidoh*	• Drive workstream tasks and deliver recommendations for Solution Design Specification • Provide support for Testing • Aid in the developme*nt functional requirements* • Provide input on requirement / design • Coo*rdinating Business Resources to support the project* • Key Point of contact to for questions from the vendor • Providing sign off for deliverables that require business *input/acceptance* • Delivering the project on time and on budget
Project Manager	Kevin Planz *Ricki Libby*	• Reporting overall status of the project to Stakeholders and Program Leadership • Identifying and escalating resource issues • Providing status reports for delivery to internal and external stakeholders (LIPA, DPS) • Manage resource*s, schedule, issues, risks and change requests* • Process development, requirements definition, • Providing subject matter expertise to th*e 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	Chris Bishop	• Process development, requirements defini*tion, functional design* • Technical Design • Supporting vendor questions and workshops • Testing Execution
Test Lead	Sikder Islam	• Test Script Development • Test Script Execution for Assembly / Unit Test • Test Execution

3.2. Other Stakeholders

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

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

4. Project Plan

4.1. Project Work Plan

More tactically, in order to achieve the objectives outlined in Section 2 of this document, PSEG LI has developed a strategic Project Plan comprised of the following activities:

Task	Recommendation	Pct Complete	Target Start Date	Target End Date
Recommendation	**Explore integrating the high-volume voice communications design into a more powerful all-encompassing call center design**	**0%**	**2/1/2021**	**04/01/2022**
Task	Develop Requirements and High-Level design	0%	Mon 2/1/21	Fri 2/12/21
Task	Develop RFP for release to CCaaS Vendors	0%	Mon 2/15/21	Fri 3/26/21
Task	RFP Selection Process	0%	Mon 3/29/21	Fri 5/28/21
Task	Internal Governance and Risk Review	0%	Mon 5/31/21	Fri 6/4/21
Task	Master Services Agreement and Statement of Work Drafted	0%	Mon 6/7/21	Fri 6/11/21
Task	Utility Review Board Presentation	0%	Mon 6/14/21	Fri 6/18/21
Task	Executed MSA and SOW back to Vendor	0%	Mon 6/21/21	Fri 7/2/21
Task	Assignment of Professional Services Team	0%	Mon 7/5/21	Fri 7/16/21
Task	Develop and Review Low Level Technical Design	0%	Mon 7/19/21	Fri 7/30/21
Task	CCaaS Environment Build	0%	Mon 8/2/21	Fri 12/3/21
Task	CCaaS QM and Survey Build	0%	Mon 12/6/21	Fri 12/17/21
	CCaaS WFM Build	0%	Mon 12/27/21	Fri 1/7/22
Milestone	CCaaS Environment Ready for Training and Acceptance Testing	0%	Fri 1/7/22	Fri 1/7/22
Task	Training	0%	Mon 1/10/22	Fri 1/21/22
Task	User Acceptance Testing	0%	Mon 1/24/22	Fri 2/18/22
Task	System Acceptance and Go/No Go for Go Live	0%	Mon 2/21/22	Fri 2/25/22
Milestone	System Approved for Go Live	0%	Fri 2/25/22	Fri 2/25/22
Task	Go Live Week	0%	Mon 2/28/22	Fri 3/4/22
Task	Stabilization Period	0%	Mon 3/7/22	Fri 4/1/22
Milestone	LIPA Task 4.05 Complete	0%	Fri 4/1/22	Fri 4/1/22

4.2. Risk Management Plan

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

Category	Project Risk	Mitigation

Resources	No holistic solution owner from PSEG LI to oversee entirety of solution	PSEG LI to designate a resource to be the holistic oversight for entire solution
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	Work with the vendor to quickly resolve impediments.
Schedule / Cost	Requirements not satisfied by existing CCAAS efforts	Aggressively work to hold to existing requirements gathered or adjust dates according before starting the project.
Schedule / Cost	Timely approval of the project not received	Gain project approval before starting the project and adjust schedule accordingly after project approval.
Program Management	Lack of Scope/Requirements control including changes needed to legacy IT systems	Lack of scope/requirements control is the leading cause of budget and schedule overruns for this scale of project. It will be critical to closely define project scope/requirements, quickly clarify any uncertainties as they arise, and escalate as required. Any changes in scope/requirements must be agreed-to by the executive steering committee.
Program Management	Additional recommendations for improvement are developed and will need to be added to this workstream	Additional recommendations that have activities similar to those addressed in this project will be identified and logically grouped within tracks. Resource requirements will be identified. Where necessary, contract resources will be hired to back fill normal job responsibilities
Infrastructure	Delays in equipment delivery and/or communications	Thorough project management and escalation procedures.

4.3. Issue Resolution Plan

Issues and risks will be identified by the PSEG LI Team and the PMO 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 get 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.

5. Technical Execution Plan

See Project Implementation Plan for Recommendation 4.04

Revision History

Name	Date	Reason for Changes	Version
David Nidoh	1/13/2021	initial draft	1.0 draft 1

PSEG Long Island

Project Implementation Plan
for
Isaias Task Force Recommendation Implementations

Project Title: Municipal Portal Outreach Plan

LIPA ID	Report	Task Force recommendations directly addressed in this plan
4.08	90 Day Report	Execute a communications plan with local emergency and municipal response officials to confirm municipalities' knowledge of the Municipal Portal and describe efforts to fix its operation from what they experienced during Isaias.

Table of Contents

1. Project Definition

Execute a communications plan with local emergency and municipal response officials to confirm municipalities' knowledge of the Municipal Portal and describe efforts to fix its operation from what they experienced during Isaias.

1.1. Project Purpose, Objectives, and Success Criteria

Project Objectives: The objective of this project is to re-engage in communications with Municipalities to affirm knowledge of the Municipal Portal. The communications will define the Municipal Portal; ensure each municipality has been provided with communications channels in preparation for emergency events, provide the link to the Municipal Portal, extend another opportunity to participate in training, and provide an overview of system upgrades.

***Project End State and Success Criteria**:* All municipalities will receive an outreach email on Municipal Portal update status and receive an opportunity to participate in training during 2021. The success criteria will be to track and confirm that 100 percent of municipalities in the service territory have been sent outreach communications and 90 percent of municipalities have confirmed receipt of those communications.

2. Project Deliverables:

Deliverable	Delivery Date	Comments
Documentation of Completed Outreach to 100% of Municipalities	2/15/2021	
Confirmation of Receipt from 90% of Municipalities	3/15/2021	

2.1. Assumptions, Dependencies, and Constraints

Assumptions:

- External Affairs will assume that all systems are operational prior to sending outreach.
- Municipal Portal is fully tested and properly functioning.
- Plan for LIPA Recommendation 4.07 is prepared and submitted to LIPA.

Dependencies and Constraints:

- Addressing open IT issues affecting the Municipal Portal

3. Project Structure

3.1. Internal Project Organization

Role	Name	Responsibilities
Project Sponsor	Christopher Hahn	• Ensure work streams adhere to guiding principles as defined by project leadership • Manage issues and decision making • Remove obstacles that impede the success of the overall project Providing strategic guidance • Challenge the project team where appropriate
Project Managers	Joanna Weissman Robert Massaro	• Ensure project activities remained aligned with the guiding principles as defined • Provide guidance and input on key project decisions • 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 • Report project status
IT PM	Edi Camila Sierra	• Provide input on IT related items • Report project IT updates • Attend Project Meetings
Customer Technology	Nayan Parikh	• Provide input on Customer Technology IT items • Report project Customer Technology IT items • Attend Project Meetings
Emergency Preparedness	Larry Torres	• Attend Project Meetings • Collaborate regarding Outreach

3.2. Other Stakeholders

LIPA: Provides project review, oversight and approval. Municipal Officials: Receives Outreach Material, Confirms receipt of outreach material
Emergency Response Officials: Receives Outreach Material, Confirms receipt of outreach material.
Municipal Portal Vendor (Kubra): Provides information and support on Municipal Portal.

4. Project Plan

4.1. Project Work Plan

Deliverable	Delivery Date	Comments
External Affairs and IT teams meet to review system status and planned upgrades	1/4/2021	Met and discussed information needed
IT Team addresses open issue affecting MSTC and completes testing	1/15/2021	Testing may reveal other issues and require additional changes
PSEG Long Island completes project plan for LIPA recommendation 4.07	1/15/2021	
Create outreach materials documenting completed and planned systems upgrades and improvements	2/1/2021	
Finalize Outreach Email with information from Communications Plan and IT upgrades and improvements	2/7/2021	
Email Municipal Officials	2/8/2021	
Track confirmation of receipt of emails to Municipal Officials	2/8/2021-3/15/2021	
Update Municipal Portal Training Manual	2/15/2021	
Finalize Municipal Portal Training Presentation	2/22/2021	
Conduct Training and Benefits Discussion on the Municipal Portal	7/31/2021	Proactive training period. Each municipality will be offered a minimum of three opportunities to attend training.
Monthly DPS/LIPA Updates on Proactive Training	4/1/2021-8/1/2021	Each month, LIPA and the DPS will be provided with an update of those municipalities who have accepted, refused, or not responded to training opportunities.
Hold any requested Municipal Portal trainings	8/1/2021 – 12/31/2021	

4.2. Risk Management Plan

Project Risk	Mitigation
Testing of planned fixes may identify additional issues	• Partner with IT and Customer Technology to investigate and resolve issues. • Adjust communication timeline to address issues identified in testing.
PSEG Long Island IT update timeline	• Senior Executive involvement • Good communication across all parties • Early engagement

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

Share deliverables with LIPA by March 30.

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.
Outreach Plan	Joanna Weissman and Robert Massaro			
Outreach Email Template	Joanna Weissman and Robert Massaro			
Outreach Email Confirmation Tracker	Joanna Weissman and Robert Massaro			
Monthly DPS/LIPA Updates on Proactive Training (April-August 2021)	Joanna Weissman and Robert Massaro			

Revision History

Name	Date	Reason for Changes	Version
Robert Massaro		initial draft	1.0 draft 1
Joanna Weissman/Rob Massaro	1/14/21	Updated schedule	1.0 draft 2

PSEG Long Island

Project Implementation Plan

For Isaias Task Force Recommendation Implementations

Recommendation No. 4.17

Project Title: 4.17 Re-architect the inter-system message queuing applications for greater dynamic stability under highly demanding workloads*

**This recommendation has been previously accepted with comments. The document has been updated to reflect comments received.*

Table of Contents

1. Project Definition

PSEG Long Island provides multiple digital channels to customers and stakeholders for both routine and storm and outage related communications. Routine communications include account, billing, and energy usage information; Storm and outage communications include downed wire and outage reporting, customer status and estimated restoration times; overall system status and service restoration activities; and pre-storm notifications.

The project goal is to verify a solution is in place to protect the OMS system from becoming inundated with customer calls in the event of a large storm with high numbers of outage reports. This project focuses on including queueing protection for the ESB along with setting up an OMS reporting database for digital channels.

Any mention of the "Digital Channels" in this document refers to the following channels:

- Kubra Notifi
- PSEG LI Mobile App
- IVR
- HVCA (High Volume Call App)
- PSEG Public website
- MyAccount Customer Portal
- Alexa/Google

1.1. Project Purpose, Objectives, and Success Criteria

1.1.1 Project Objectives:

The objectives of the project are:

1. Design and implement a solution that allows outage reports and requests from various digital channels to be queued up before being sent to OMS

1.1.2 Project End State and Success Criteria:

End State:

- The end state of the Digital Channels Enhancement project will be to verify queuing messages in the ESB are setup as asynchronous

Success Criteria:

- Success is defined as an operable solution, thoroughly tested and deployed in a production environment

2. Project Deliverables:

The following are the list of deliverables that will be delivered as part of the implementation:

Deliverable	Delivery Date	Comments
To Be Proposed Architecture	1/6/2021	Create architecture for proposed plan
Detailed Roadmap and Implementation Plan	1/15/21	Create detailed roadmap and implementation plan for solution 4.17

Functional Design – ESB Queueing Layer and Flow Control	2/25/21	Create a functional design – ESB Queueing Layer
Technical Design - ESB Queueing layer	3/24/2021	Create a technical design – ESB Queueing layer
All configuration items in CMDB.	7/5/2021	Per our understanding, LIPA requests any configuration to be added in service now and tracked with this deliverable

The Project Management Office (PMO) will create and maintain the following across all IT Implementation Plans:

- Integrated Project Plan
- Status Reports
- Risks and Issues Log

2.1. Assumptions, Dependencies, and Constraints

2.1.1 Assumptions:

- PSEG LI has the necessary resources in place from an internal and third-party standpoint to complete all of the objectives including implementation work as needed
- The project team will move forward to implement recommendations and enhanced solutions for the existing PSEG LI framework and vendor partnerships
- Vendor resources will be available to provide SME time and answer any questions for respective applications
- All modifications to the webservice will happen on Sonic ESB first with a migration to MuleSoft ESB on a future date determined through design sessions
- PSEG LI will track changes made to the project plan for auditing purposes. This will allow for tracking impacts to schedule. Storms or other external factors will be accounted for (workarounds or extensions need to be included in the audit trail)
- Will leverage current ESB webservice to provide customer messaging
- Assuming minimal modifications to customer messaging
- Kubra messaging changes can be done as part of existing service agreement
- Intrado messaging changes can be done as part of the service agreement
- Team will deploy changes on CGI OMS 5.5 first and re-factor for CGI OMS 6.7 post go live

2.1.2 Dependencies:

- PSEG LI has a dependency on XTENSIBLE for performing changes on the Sonic ESB
- PSEG LI has a dependency on CGI to help design the ESB queue to insulate CGI OMS
- PSEG LI has a dependency on the OMS team to stand up the OMS testing environment and make it available for end to end testing activities requiring the digital channels

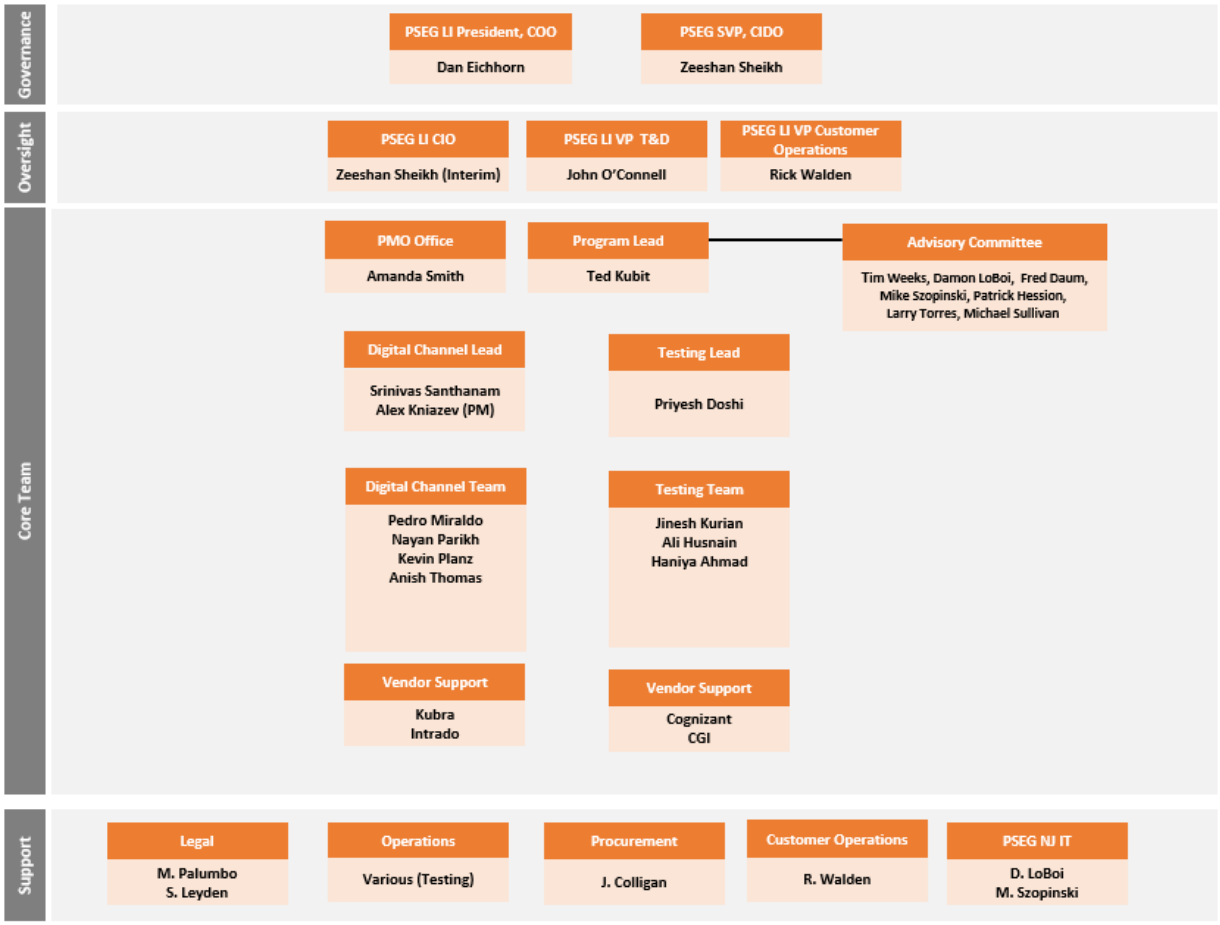
2.1.3 Constraints:

- Competing projects at PSEG LI could affect delivery 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 Digital Channels Team, Testing Team along with vendor support from Kubra, Intrado, and Cognizant will implement the Digital Channels project. The chart below shows the internal project organization and the groups responsible for the Digital Channels project:



3.1.1 Roles and Responsibilities:

Roles and responsibilities for the Digital Channels Enhancement project are outlined in the table below:

Role	Name	Responsibilities
Steering Committee	Dan Eichhorn *(Chair)* Zeeshan Sheikh John O'Connell Rick Walden	• Championing the PSEG LI Storm Restoration initiative • Establishing guiding principles for the project • Ensuring project activities remained aligned with the guiding principles as defined • Providing guidance and input on key project decisions • Challenging the project team where appropriate

		• Approving major changes to the project's scope, objectives, timelines, costs, etc. • Acting as the decision maker for issues requiring escalation • Removing institutional barriers if and when they arise by serving as a project advocate
Leadership	PSEG LI CIO - Zeeshan Sheikh (Interim)	• Ensuring workstreams adhere to guiding principles as defined by project leadership • Managing issues and decision making • Removing obstacles that impede the success of the overall project Providing strategic guidance • Challenging the project team where appropriate • Approve procurement of external parties (as needed)
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 obstacles that impede the success of the overall project • Providing subject matter expertise to the project • Challenging the project team where appropriate
Digital Channel Lead	Srinivas Santhanam / Alex Kniazev (ACN)	• Drive workstream tasks and deliver recommendations for Solution Design Specification • Provide support for Testing • Aid in the development functional requirements • Provide input on requirement / design • Coordinating Business Resources to support the project • Key Point of contact to for questions from the HVCA IVR vendor, Outage Map vendor and Xtensible Team • Providing sign off for deliverables that require business input/acceptance • Delivering the Digital Channels project on time and on budget
Project Manager	Kevin Planz	• Reporting overall status of the project to Stakeholders and Program Leadership • Identifying and escalating 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
Technical Architect	Pedro Miraldo	• Supporting Build/Test/Deploy Activities • Environment setup • Assist in the configuration of the Digital Channels • Coordinating Development activities • Technical Design • Testing Lead • Transfer of Environments

Business Lead	Nayan Parikh	• Process development, requirements definition, functional design • Technical Design • Supporting vendor questions and workshops Testing Execution
Test Lead	Sikder Islam	• Test Script Development • Test Script Execution for Assembly / Unit Test • Test Execution
Environment Lead	Anish Thomas	• Technical Design development • Environment design support
Test Project Manager	Priyesh Doshi	• Reporting overall testing status of the project to Stakeholders and Program Leadership • Identifying and escalating resource issues • Developing Testing Dashboard to accurately display current test execution • Manage resources, schedule, issues, risks and change requests • Providing testing subject matter expertise to the project • Defect Management

3.2. Other Stakeholders

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

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

4. Project Plan

4.1. Project Work Plan

LIPA ID	Type	Task Name	Current Status	% Complete	Start	Finish
4.17	**Recommendation**	**Digital Re-architect the inter-system message queuing applications for greater dynamic stability under highly demanding workloads.**	**In progress**	**8%**	Fri 11/13/20	Fri 7/9/21
4.17	Subtask	Analyze conceptual architecture view for the inter system message queuing applications	Complete	100%	Mon 1/4/21	Fri 1/8/21
4.17	Subtask	Host Design Sessions to produce future state architecture for inter-system message queueing application	Complete	100%	Mon 1/4/21	Fri 1/8/21
4.17	Task	Tier 1	In Progress	**75%**	Wed 1/6/21	Fri 1/15/21
4.17	Subtask	Preliminary Review of Tier 1 implementation plan responses (align on response and direction)	Complete	100%	Wed 1/6/21	Wed 1/6/21
4.17	Subtask	Internal PSEG approval of proposed architecture	Complete	100%	Fri 1/15/21	Fri 1/15/21
4.17	Subtask	Submission date of the Tier 1 implementation plan responses to LIPA	In Progress	75%	Fri 1/15/21	Fri 1/15/21
4.17	Subtask	Explore asynchronous messaging to ESB from digital channels	In Progress	25%	Mon 1/11/21	Fri 1/22/21
4.17	Subtask	Explore dynamic adjustment of time out settings across channels	In Progress	15%	Mon 1/11/21	Fri 1/22/21
4.17	Subtask	Create Detailed Roadmap and Implementation plan	In Progress	75%	Mon 1/11/21	Fri 1/15/21
4.17	Subtask	Identify Xtensible resources	Complete	100%	Mon 1/11/21	Mon 1/11/21
4.17	Subtask	Identify impacts for additional resources (meet with Xtensible for Intrado/Kubra etc.)	In Progress	25%	Mon 1/11/21	Fri 1/15/21
4.17	Subtask	Identify impacts for F5 networking	Not Started	0%	Mon 1/11/21	Fri 1/15/21
4.17	*Milestone*	*MS: Procure resources*	*Not Started*	*0%*	*Fri 1/15/21*	*Fri 1/15/21*
4.17	*Milestone*	*MS: Detailed Roadmap and Implementation plan*	*Not Started*	*0%*	*Fri 1/15/21*	*Fri 1/15/21*
4.17	**Design Phase**	**Design Phase**	**Not Started**	**0%**	Thu 1/28/21	Wed 2/17/21
4.17	Task	Create Functional Design - ESB Queueing Layer and flow control	Not Started	**0%**	Thu 1/28/21	Wed 2/17/21
4.17	Subtask	Revisit customer messaging requirements with business for all channels	Not Started	0%	Thu 1/28/21	Wed 2/3/21
4.17	Subtask	Design ESB queuing layer to work with digital channel vendors and CGI	Not Started	0%	Thu 2/4/21	Wed 2/17/21
4.17	Subtask	Define error handling for failures/monitoring	Not Started	0%	Thu 2/18/21	Wed 2/24/21
4.17	Subtask	Create RTM document	Not Started	0%	Thu 1/28/21	Wed 2/17/21
4.17	*Milestone*	*MS: RTM Documentation complete/ LIPA Review*	*Not Started*	*0%*	*Wed 2/17/21*	*Wed 2/17/21*

4.17	*Milestone*	*MS: PSEG/LIPA review*	*Not Started*	*0%*	*Thu 2/25/21*	*Thu 2/25/21*
4.17	**Build / Development phase**	**Build / Development phase**	**In progress**	**4%**	Fri 11/13/20	Wed 3/24/21
4.17	Subtask	Develop ESB queueing and flow control	Not Started	0%	Thu 2/25/21	Wed 3/24/21
4.17	Subtask	Implement messaging changes (if any)	Not Started	0%	Thu 2/25/21	Wed 3/3/21
4.17	Subtask	Create Technical Design - ESB Queueing layer and flow control	Not Started	0%	Thu 2/25/21	Wed 3/24/21
4.17	*Milestone*	*MS: Build Complete*	*Not Started*	*0%*	*Wed 3/24/21*	*Wed 3/24/21*
4.17	Subtask	Get Outages Webservice improvement	Complete	100%	Fri 11/13/20	Fri 11/13/20
4.17	Subtask	Outage Hub View Refactoring to improve performance	Complete	100%	Fri 11/13/20	Fri 11/13/20
4.17	**Test Phase**	**Test phase**	**Not Started**	**0%**	**Wed 3/17/21**	**Fri 5/28/21**
4.17	Subtask	Functional Testing	Not Started	0%	Wed 3/17/21	Tue 3/30/21
4.17	Subtask	SIT / UAT Testing and defect resolution	Not Started	0%	Mon 4/5/21	Fri 4/23/21
4.17	Subtask	Performance Testing and defect resolution	Not Started	0%	Thu 3/25/21	Wed 414/21
4.17	Subtask	Penetration testing and data security review and approval of Build (Code)	Not Started	0%	Thu 3/25/21	Wed 4/14/21
4.17	Subtask	Leverage Recommendation 4.12 - Perform a holistic test simulating calls from all channels to verify time out settings do not impact one another	Not Started	0%	Fri 1/22/21	Fri 1/22/21
4.17	Subtask	Get Outages Webservice improvement testing	Not Started	0%	Fri 1/22/21	Fri 1/22/21
4.17	Subtask	Test CGI Webservice payload reduction	Not Started	0%	Fri 1/22/21	Fri 1/22/21
4.17	Subtask	Test outage hub view refactoring	Not Started	0%	Fri 1/22/21	Fri 1/22/21
4.17	Subtask	Go/No-Go for 5.5	Not Started	0%	Thu 4/15/21	Thu 4/15/21
4.17	Subtask	Solution Deployment 5.5	Not Started	0%	Fri 4/16/21	Fri 4/16/21
4.17	Subtask	Refactor for OMS 6.7	Not Started	0%	Thu 5/13/21	Wed 5/19/21
4.17	Subtask	Solution Deployment 6.7	Not Started	0%	Thu 5/20/21	Fri 5/21/21
4.17	Subtask	Regression test for OMS 6.7	Not Started	0%	Mon 5/24/21	Fri 5/28/21
4.17	Subtask	Change Management	Not Started	0%	Thu 3/25/21	Wed 3/31/21
4.17	Subtask	Warranty Period	Not Started	0%	Mon 4/19/21	Fri 7/9/21

4.2. Risk Management Plan

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

Category	Project Risk	Mitigation
Resources	Resource constraints from Digital 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
Resources	No holistic solution owner from PSEG LI to oversee entirety of solution	PSEG LI to designate a resource to be the holistic oversight for entire solution
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	Work with the vendor to quickly resolve impediments
Schedule / Cost	The activities outlined in the Digital Channels project become more complex than anticipated	Review the additional work required to complete the project with the steering committee. Add the scope required complete the project to the implementation plan. Clearly identify the steps that will be taken to anticipate this complexity in future projects
Program Management	Lack of Scope/Requirements control including changes needed to legacy IT systems	Lack of scope/requirements control is the leading cause of budget and schedule overruns for this scale of project. It will be critical to closely define project scope/requirements, quickly clarify any uncertainties as they arise, and escalate as required. Any changes in scope/requirements must be agreed-to by the executive steering committee
Program Management	Additional recommendations for improvement are developed and will need to be added to this workstream	Additional recommendations that have activities similar to those addressed in this project will be identified and logically grouped within tracks. Resource requirements will be identified. Where necessary, contract resources will be hired to back fill normal job responsibilities

4.3. Issue Resolution Plan

Issues and risks will be identified by the PSEG LI Team and the PMO 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 get 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.

5. Technical Execution Plan

5.1. Technical Approach

5.1.1 Configuration of ESB webservices:

For any changes to configuration of webservices of applications, vendors will be contacted when needed and internal infrastructure will be adjusted accordingly. Testing will be executed to verify changes are working as intended.

Here is the list of known differences / enhancements that will be in ESB QA that are not yet in production:

- ManageTroubleTicket
  - Container memory allocation increased from 1GB to 2GB.
  - Maximum number of connections to ESB service increased from 5 to 25.
  - Maximum number of connections to OMS services increased from 5 to 25.
  - Timeout setting for OMS service connection (time ESB waits for available OMS service connection) reduced from 30 to 1.5 seconds.
  - Timeout setting for OMS service response (time ESB waits for OMS service response) reduced from 30 to 12 seconds.
- ManageCustomerAccount
  - Container memory allocation increased from 1 GB to 2 GB.
  - Maximum number of connections to ESB service increased from 5 to 25.
  - Maximum number of connections to Kubra Notifi web services increased from 5 to 25.
  - Timeout setting for Kubra service connection (time ESB waits for available Kubra service connection) reduced from 30 to 1.5 seconds.
  - Timeout setting for Kubra service response (time ESB waits for Kubra service response) reduced from 30 to 12 seconds.
  - Timeout setting for mainframe response (time ESB waits for mainframe response) reduced from 30 to 12 seconds.
  - RCCP/GridX changes -- not performance issue plus or minus, just a noted difference.

5.1.2 ***Configuration of applications*** - Here are the time out changes being made to various digital channels in coordination with ESB changes.

Channel	Current in Production	Settings to be Tested
MyAccount web (Sitecore)	30 seconds	10 seconds – Gettroubleticket 10 seconds – Submittroubleticket

NuanceIVR	15 seconds	15 seconds
TFCC IVR	6 seconds (live call) 120 seconds (backup trouble ticket submission)	6 seconds (live call) 120 seconds (backup trouble ticket submission)
Voice Assistance (Alexa/Google Home)	8 seconds	8 seconds
My Account Mobile App	15 seconds – Gettroubleticket 20 seconds – Submittroubleticket	15 seconds – Gettroubleticket 20 seconds – Submittroubleticket
Kubra Texting (iFactorSL)	5 seconds – Gettroubleticket (current) 5 seconds – Submittroubleticket (current)	10 seconds – Gettroubleticket 10 seconds – Submittroubleticket *This will depend on Kubra standing up a performance testing environment.*
Kubra Outage Map	10 minutes - timeout 15 minutes - refresh	25 minute - time out 30 minute - refresh *This will depend on Kubra standing up a performance testing environment*
CGI OMS	2 minutes default **Note:** this cannot be done per individual webservice but this would only apply to Gettroubleticket & Submittroubleticket	Please confirm the timeout settings for the CGI web services.

ESB	30-60 seconds – Gettroubleticket (current)
	30-60 seconds – Submittroubleticket (current)
		• ManageTroubleTicket
		  ○ Timeout setting for OMS service connection (time ESB waits for available OMS service connection) reduced from 30 to 1.5 seconds.
		  ○ Timeout setting for OMS service response (time ESB waits for OMS service response) reduced from 30 to 12 seconds.
		• ManageCustomerAccount
		  ○ Timeout setting for Kubra service connection (time ESB waits for available Kubra service connection) reduced from 30 to 1.5 seconds.
		  ○ Timeout setting for Kubra service response (time ESB waits for Kubra service response) reduced from 30 to 12 seconds.

		○ Timeout setting for mainframe response (time ESB waits for mainframe response) reduced from 30 to 12 seconds. • Incident.Getoutages ○ Timeout setting increased from 30 to 55 minutes.
F5	Universal time out	Universal time out

5.1.3 Changes to webservices:

PSEGLI customer facing systems (e.g. IVR, Texting, etc.) do not directly interact with OMS web services. They interact with the canonical ESB web service called ManageTroubleTicket. This service has two operations, SubmitTroubleTicket and GetTroubleTicket. SubmitTroubleTicket invokes CGI OMS web service InboundCallService.CreateCall. The interaction is fully synchronous today so the customer facing system does not get a response until the ESB service has received a response (or timed out waiting for one) and converted it to the SubmitTroubleTicket response message. Typically, customer facing systems wait 5-10 seconds for the response before determining that it failed and relaying that failure message to the customer.

SubmitTroubleTicket will be refactored to provide an immediate response to the consumer (customer facing systems) while queuing up request for asynchronous metered flow to CGI OMS CreateCall API. This will enable the OMS system to not be overwhelmed with incoming requests as the ESB SubmitTroubleTicket process will only send to OMS at a rate that it can handle.

This solution accomplishes a few things:

- Provides protection for the OMS in cases where the incoming trouble ticket submissions cannot be processed

Allows all channels to respond quickly to customer interaction with “success”

- This should both allow for a better customer experience and reduce the number of repeat trouble ticket submissions
- Makes sure all channels trouble ticket submissions are handled in a consistent way
- Does so without requiring any changes to the customer facing systems
- **Note:** messaging changes will need to be explored.

The flow for ManageTroubleTicket.GetTroubleTicket was also reviewed and found not to be conducive to an asynchronous pattern or a hybrid pattern as, typically, the customer is waiting for a response for the status of their outage. There are improvements to that flow being explored but that exploration no longer includes consideration of an asynchronous mode.

5.1.4 Changes to Infrastructure:

Leveraging existing capabilities within PSEG LI ESB.

5.2. Quality Assurance Plan

5.2.1 QA Methodology:

- 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

- The deliverables will follow the following QA processes:
    - Team lead review and signoff
    - Peer Review (PSEG)
    - Subject Matter Advisor Review as necessary
    - PSEG Signoff by PSEGLI CIO and President & COO of PSEGLI
    - Independent Verification and Validation by LIPA CIO
- 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)
- Test plan and test results will be signed off by PSEGLI CIO and President & COO of PSEGLI, and shared with LIPA upon completion

5.2.2 Test Scope:

Testing of incoming calls from a future storm will incorporate the following digital channels:

Channel	Test Plan (High Level)	Test Outcome
Kubra Notifi	Simulate incoming outage calls from this channel into OMS	Verify ESB is able to queue the incoming calls
PSEG LI Mobile App	Simulate incoming outage calls from this channel into OMS	Verify ESB is able to queue the incoming calls
IVR	Simulate incoming outage calls from this channel into OMS	Verify ESB is able to queue the incoming calls
HVCA	Simulate incoming outage calls from this channel into OMS	Verify ESB is able to queue the incoming calls
PSEG corporate website	Simulate incoming outage calls from this channel into OMS	Verify ESB is able to queue the incoming calls
MyAccount Customer Portal	Simulate incoming outage calls from this channel into OMS	Verify ESB is able to queue the incoming calls
Alexa/Google	Simulate incoming outage calls from this channel into OMS	Verify ESB is able to queue the incoming calls

ESB must be capable of handling large call volumes (to be defined in threshold documentation) and must be able to place those requests in a queue to be relayed to OMS. Testing must be done across multiple channels providing input at one time to verify real storm conditions are met and performance is not impacted with multiple reporting methods.

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. A final Project Closure Document will be delivered once all LIPA Recommendations in this implementation plan are completed.

Deliverable	Delivery Date	Comments
To Be Proposed Architecture	1/6/2021	Create architecture for proposed plan
Detailed Roadmap and Implementation Plan	1/15/21	Create detailed roadmap and implementation plan for solution 4.17
Functional Design – ESB Queueing Layer and Flow Control	2/25/21	Create a functional design – ESB Queueing Layer
Technical Design - ESB Queueing layer	3/24/2021	Create a technical design – ESB Queueing layer

All configuration items in CMDB.	7/5/2021	Per our understanding, LIPA requests any configuration to be added in service now and tracked with this deliverable

Revision History

Name	Date	Reason for Changes	Version
Ali Husnain	12/9/2020	Initial draft	1.1
Alexander Kniazev	12/9/2020	Updated test criteria and project scope	1.2
Alexander Kniazev/Ali Husnain	12/10/2020	Rewrite to address individual recommendation with updates to the project plan	1.3

PSEG Long Island

Project Implementation Plan

for

Isaias Task Force Recommendation Implementations

Recommendation No. 4.19

Project Title: As part of storm preparation ensure that all application error and debug conditions have been cleared and the system is operating normally

Table of Contents

1. Project Definition

The OMS project is focused on improving the performance and reliability of the OMS and its ecosystem. The objectives of the recommendation 4.19 is to ensure that the procedure for clearing the application error and debug conditions and the system is operating normally is clearly documented and executed in preparation for storm conditions.

Major deliverables include the documentation of an approved Pre-Storm checklist with procedure for disabling debugging clearing error logs for OMS support team operations.

Project Objectives:

Develop procedure and process for the OMS support team to execute as part of the pre-storm checklist for disabling debugging and clearing application error logs.

***Project End State and Success Criteria**:*

OMS support team has updated pre-storm checklist with the procedures for disabling debugging and clearing error logs to be ready for NOC storm preparation activities

2. Project Deliverables:

Deliverable	Delivery Date	Comments
Approved Pre-Storm checklist with procedures for error and debugging conditions	5/3/2021	Existing Pre-Storm checklist will be leveraged and updated to include the appropriate actions as outlined in this implementation plan.

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
- Project implementation timeline is planned to complete all activities ahead of storm season
- This implementation plan will cover implementation for OMS v5.5 and OMS v6.7

2.1.2 Dependencies:

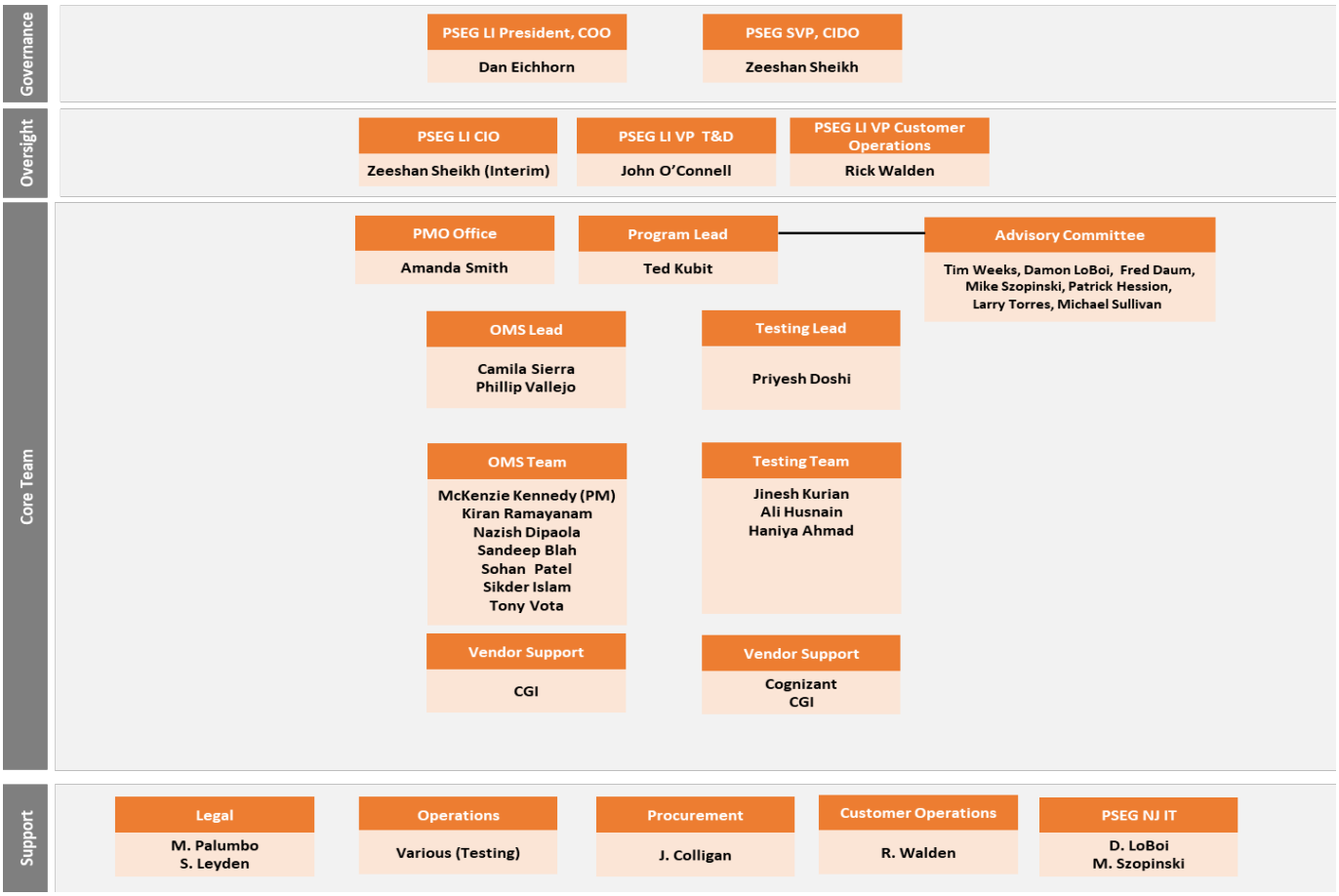
-
- Existing Pre-Storm Checklist and IT Run Book will be updated to include procedures for clearing application error and debugging conditions.

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 *defined* • Providing guidance and input on *key project decisions* • Challenging the project team where appropriate • Approving major *changes to the project's scope, objectives, timelines, costs, etc.* • Acting as the decision maker for issues requiring *escalation* • Removing institutional barriers when *they arise by serving as a project advocate*
PSEG LI CIO	Zeeshan Sheikh (Interim)	• Ensuring *workstreams adhere to guiding principles as defined by project leadership* • Managing issues and decision making • Removing *obstacles that impede the success of the overall project Providing strategic guidance*

		• Challenging the project team where appropriate • Approve procurement of external parties (as needed)
Advisory Committee Members	Tim Weeks Damon LoBoi Mike Szopinski Fred Daum Patrick Hession Larry Torres Michael Sullivan	• Providing guidance and input o*n 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 pr*oject team*
Team Lead	Camila Sierra Kirankumar Ramayanam Phillip Vallejo	• Drive workstream tasks and deliver recommendations for Solution Design Specification • Provide support for Testing • Aid in the developme*nt functional requirements* • Provide input on requirement / design • Coo*rdinating Business Resources to support the project* • Key Point of contact to 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
Project Manager	McKenzie Kennedy	• Reporting overall status of the project to Stakeholders and Program Leadership • Identifying and escalating resource issues • Providing status reports for delivery to internal and external stakeholders (LIPA, DPS) • Manage resource*s, schedule, issues, risks and change requests* • Process development, requirements definition, • Providing subject matter expertise to th*e 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*tion, functional design* • Technical Design • Supporting vendor questions and workshops • Testing Execution
Test Lead	Sandeep Blah Jinesh Kurian	• Providing overall management across testing activities • Develop Test Strategy • Develop Test Data
Test Coordinator	Sikder Islam	• 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 development • Environment 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 defect fixes and troubleshooting functional and performance issues

PSEG NJ IT Subject Matter Advisor	Damon LoBoi
	Michal Szopinski
	Timothy Weeks
	Michael Casella
	Ryan Wilson
		• Subject Matter support with:
		  • Build/Test/Deploy Activities
		  • Assist with Environment setup
		  • Coordinating Development activities
		  • Assist with Technical Design and Architecture
		• Assist with Transfer of Environments

	Ajith Elayidom	

3.2. Other Stakeholders

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

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

4. Project Plan

4.1. Project Work Plan

Project Work Plan Objectives

The following project tasks are part of the larger OMS integrated project plan. These are specific to recommendation 4.19.

Type	Task	% Complete	Start	Finish
Recommendation	**As part of storm preparation ensure that all application error and debug conditions have been cleared and the system is operating normally.**	**0%**	**Mon 1/18/21**	**Mon 5/3/21**
Task	Develop procedure for error and debugging conditions are cleared	0%	Mon 1/18/21	Fri 1/29/21
Task	Amend the procedure within the existing pre-storm checklist	0%	Mon 2/1/21	Fri 2/5/21
Task	Obtain approval of the amendment of the pre-storm checklist	0%	Mon 2/8/21	Fri 2/12/21
Document	***Pre-Storm Standard Operating Procedure Document***	***0%***	***Fri 2/12/21***	***Fri 2/12/21***
Task	Incorporate this task into OMS support team and NOC storm preparation activities	0%	Mon 2/15/21	Fri 2/19/21
Task	Obtain Acceptance	0%	Mon 2/22/21	Fri 2/26/21
Task	Deploy into Production	0%	Mon 3/1/21	Mon 3/1/21
Document	***Go-Live Confirmation Document***	***0%***	***Mon*** 3/1***/21***	***Mon*** 3/1***/21***
Deliverable	**Approved Pre-Storm checklist with procedures for error and debugging conditions**	**0%**	**Mon** 3/1**/21**	**Mon** 3/1**/21**

4.2. Risk Management Plan

Issues and risks will be identified by the PSEG LI Team and the PMO 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 get 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.

4.3. Issue Resolution Plan

Issues and risks will be identified by the PSEG LI Team and the PMO 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 get 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 and they are available 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	No holistic solution owner from PSEG LI to oversee entirety of solution	PSEG LI to designate a resource to be the holistic oversight for entire solution
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.

4.4. LIPA Reporting Plan

Weekly status reports for all recommendations, containing project progress and documentation will be provided to LIPA by Zeeshan Sheikh.

5. Technical Execution Plan

5.1. Technical Approach

5.1.1 Configuration of Applications:

For any changes to configuration of applications, the vendor will be contacted when needed and internal infrastructure will be adjusted accordingly. Testing will be executed to verify changes are working as intended.

5.1.2 Changes to webservices:

Changes to existing CGI webservices or new webservices will be developed on the preferred development platform at PSEG LI. Code will be reviewed and unit tested prior to deploying code to the test environment. SAT and SIT testing will occur in the test environment to verify functionality is working as intended.

5.2. Quality Assurance Plan

1 The team will adhere to the PSEG's IT standards for the deployment of this project.
2 PSEG LI IT SharePoint will be used as the document repository.
3 The deliverables will follow the following QA processes:
   a. Team lead review and signoff
   b. Peer Review (PSEG)
   c. Subject Matter Advisor Review as necessary
   d. PSEG Signoff by PSEGLI CIO and President & COO of PSEGLI
   e. Independent Verification and Validation by LIPA CIO

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. A final Project Closure Document will be delivered once all LIPA Recommendations in this implementation plan are completed.

Project Artifacts	Description
Pre-Storm Standard Operating Procedure Document	Production Support team including all applicable Production Acceptance, Change Management and IT Change Management documentation and approvals for Pre-Storm processes.
Go-Live Confirmation Document	The application has been put into production environment and the Company's end users

	have the ability to access and use the application and its functionality as designed

Revision History

Name	Date	Reason for Changes	Version
Jinesh Kurian	12/09/2020	Initial draft	1.0 draft 1
McKenzie Kennedy	12/10/2020	Initial Review	1.0 draft 2
McKenzie Kennedy	1/11/2021	Updated Project Plan	2.0 draft 1

PSEG Long Island

Project Implementation Plan

for

Isaias Task Force Recommendation Implementations

Recommendation No. 3.2.1.3

Project Title: The existing infrastructure for handling calls within the PSEG Long Island Call Center should be upgraded to a more recent version. PSEG Long Island should modernize its call center infrastructure to a technology that uses the newer "SIP Trunking" technology.

Table of Contents

1. Project Definition

This project includes efforts to modernize the PSEG LI Contact Center by migrating existing legacy PRI telephony circuits to the more modern SIP trunking technology and upgrading the Cisco Unified Contact Center Enterprise Platform to a more current version. This will enable optimized call routing through the carrier networks and distribution of calls between the PSEG LI Contact Center and the HVCA. Capacity management over SIP trunking will be more dynamic, with the ability to add trunks quickly as needs evolve.

1.1. Project Purpose, Objectives, and Success Criteria

Project Objectives:

Migrate the carrier telephony lines supporting the PSEG LI Contact Center from the legacy PRIs that are currently in place to the more current SIP trunking technology. SIP trunks will be provisioned with sufficient capacity to meet current metrics for storm volumes while allowing a quicker capability to expand capacity to meet future needs.

The existing Cisco platform is nearing end of life and will require an upgrade to a more recent version to maintain supportability.

***Project End State and Success Criteria**:*

Upgraded and modernized Long Island Contact Center telecom links are deployed and in production.

2. Project Deliverables:

Deliverable	Delivery Date	Comments
SIP Migration Project Plan	1/18/2021	Will resubmit as any significant changes are identified (i.e. HVCA consolidation, if prudent)
Upgrade Migration Project Plan	2/1/2021	Will resubmit as any significant changes are identified
Requirements Traceability Matrix (RTM)	1/22/2021	Delivered first after SIP requirements phase and updated 2/1/21 for Upgrade
SIP Low Level Technical Design	1/29/2021	
Upgrade Low Level Technical Design	2/5/2021	
Test Plan	2/5/2021	Developed as part of Low Level Design
Test Results	6/18/2021	
Final Sign Off	7/9/2021	

2.1. Assumptions, Dependencies, and Constraints

2.1.1 Assumptions:

- Project team will be available for design discussions and will have a designated resource who will confirm all decisions made for future improvements

- Vendor resources will be available to provide SME time to aid in the gathering of requirements, creating the design and specifications, etc.
- Procurement timelines will be expedited to meet project schedule
- Project will be approved to start immediately, will be funded and will not experience delays due to additional approvals

2.1.2 Dependencies:

- PSEG LI Availability of external experts to assist in the design, planning, RFP creation and evaluation and implementation.
- Approval to start immediately and funds available to onboard SMEs

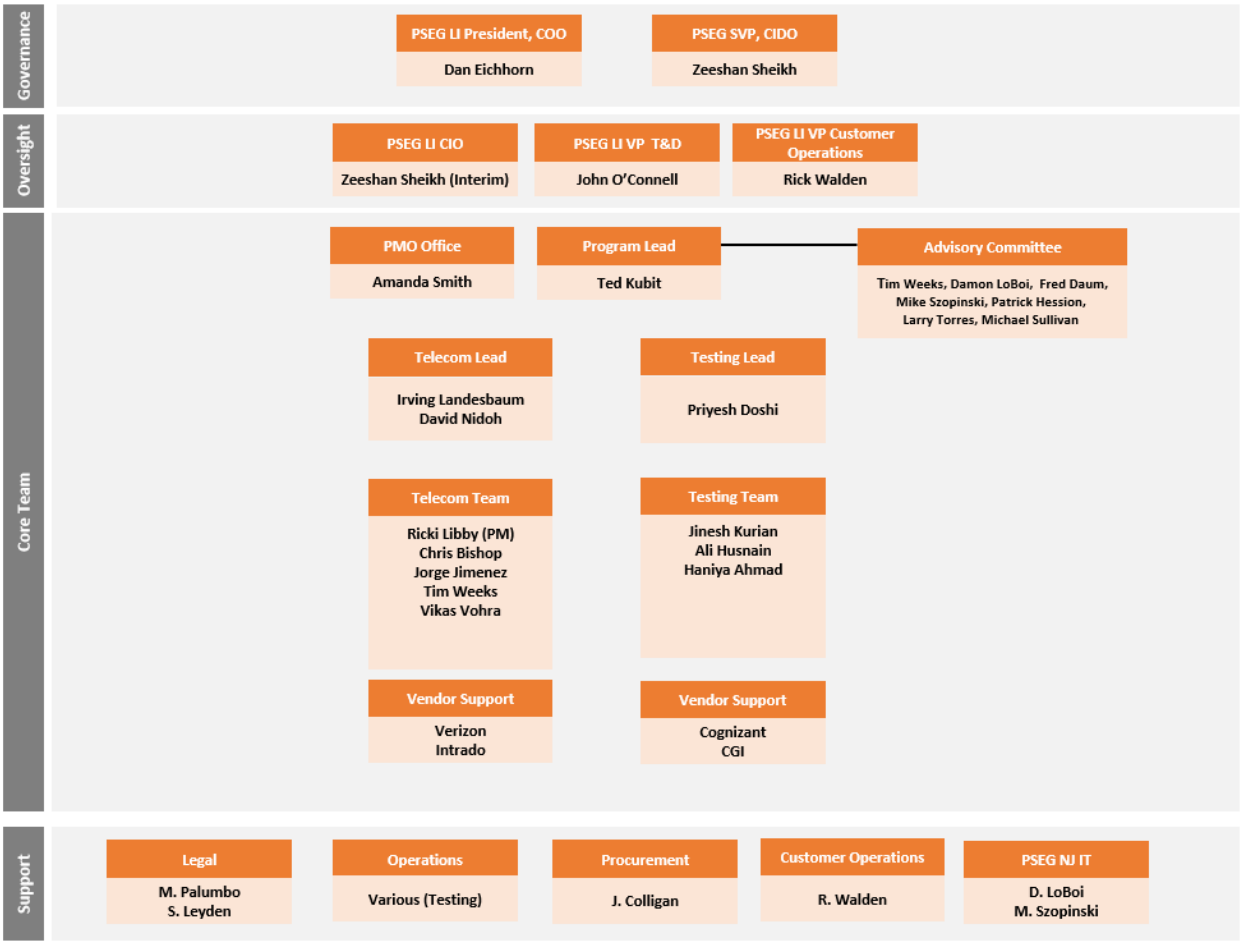
2.1.3 Constraints:

- The number of qualified resources with subject matter expertise.
- Competing projects and operational activities that further constrain available resources. Availability of vendor resources with requisite experience to engage quickly.

3. Project Structure

3.1. Internal Project Organization

The Telecom Team, Testing Team along with vendor support from other suppliers will implement this modernization project. The chart below shows the internal project organization and the groups responsible for the Telecom project:



3.1.1 Roles and Responsibilities:

Roles and responsibilities for the Telecom project are outlined in the table below:

Role	Name	Responsibilities
Steering Committee	Dan Eichhorn *(Chair)* Zeeshan Sheikh John O'Connell Rick Walden	• Championing the PSEG LI Storm Restoration initiative • Establishing guiding principles for the project • Ensuring project activities remained aligned with the guiding principles as *defined* • Providing guidance and input on *key project decisions* • Challenging the project team where appropriate • Approving major *changes to the project's scope, objectives, timelines, costs, etc.* • Acting as the decision maker for issues requiring *escalation* • Removing institutional barriers when *they arise by serving as a project advocate*
PSEG LI CIO	Zeeshan Sheikh (Interim)	• Ensuring *workstreams adhere to guiding principles as defined by project leadership* • Managing issues and decision making • Removing *obstacles that impede the success of the overall project Providing strategic guidance* • Challenging the project team where appropriate • Approve procurement of external parties (as needed)

Role	Name	Responsibilities
Advisory Committee Members	Tim Weeks Damon LoBoi Mike Szopinski Fred Daum Patrick Hession Larry Torres Michael Sullivan	• Providing guidance and input o*n 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 pr*oject team*
Team Lead	Vikas Vohra *David Nidoh*	• Drive workstream tasks and deliver recommendations for Solution Design Specification • Provide support for Testing • Aid in the developme*nt functional requirements* • Provide input on requirement / design • Coo*rdinating Business Resources to support the project* • Key Point of contact to for questions from the vendor • Providing sign off for deliverables that require business *input/acceptance* • Delivering the project on time and on budget
Project Manager	Vikas Vohra *Ricki Libby*	• Reporting overall status of the project to Stakeholders and Program Leadership • Identifying and escalating resource issues • Providing status reports for delivery to internal and external stakeholders (LIPA, DPS) • Manage resource*s, schedule, issues, risks and change requests* • Process development, requirements definition, • Providing subject matter expertise to th*e 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	Chris Bishop	• Process development, requirements defini*tion, functional design* • Technical Design • Supporting vendor questions and workshops • Testing Execution
Test Lead	Sikder Islam	• Test Script Development • Test Script Execution for Assembly / Unit Test • Test Execution
Presidio	Steve Yablonski and TBD	• Cisco UCCE Upgrade Engineering • Support Testing • Support Cutover

3.2. Other Stakeholders

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

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

4. Project Plan

4.1. Project Work Plan

More tactically, in order to achieve the objectives outlined in Section 2 of this document, PSEG LI has developed a strategic Project Plan comprised of the following activities:

Task	Recommendation	Pct Complete	Target Start Date	Target End Date
Recommendation	**PSEG Long Island should modernize its call center infrastructure to a technology that uses the newer "SIP Trunking" technology.**	**0%**	**1/18/21**	**7/9/21**
Task	**Migrate TDM PRIs to SIP Trunking**	**0%**	**Mon 1/18/21**	**Wed 6/2/21**
Sub Task	Develop Requirements and High-Level design	0%	Mon 1/18/21	Fri 1/22/21
Sub Task	Develop low level technical design of solution	0%	Mon 1/25/21	Fri 1/29/21
Sub Task	Review designs and cost impacts with leadership for approval	0%	Mon 2/1/21	Fri 2/5/21
Sub Task	Place order with carrier for provisioning	0%	Mon 2/8/21	Wed 2/10/21
Sub Task	Procurement for Telecom Equipment	0%	Mon 2/8/21	Fri 3/12/21
Sub Task	CMDB updated with new equipment and any updated Cis	0%	Mon 3/8/21	Fri 3/12/21
Sub Task	Rack/Stack/Cable Telecom Equipment	0%	Mon 3/15/21	Fri 4/16/21
Sub Task	Carrier installs data links and SIP trunks	0%	Thu 2/11/21	Wed 5/5/21
Sub Task	Test and Turn Up of new circuits and trunks	0%	Thu 5/6/21	Wed 5/19/21
Sub Task	Cutover	0%	Thu 5/20/21	Wed 6/2/21
Milestone	SIP Trunking Migration Complete	0%	Wed 6/2/21	Wed 6/2/21
Task	**Upgrade Cisco Unified Contact Center Enterprise (UCCE)**	**0%**	**Mon 2/1/21**	**Fri 7/9/21**
Sub Task	Develop low level technical design for upgrade	0%	Mon 2/1/21	Fri 2/5/21
Sub Task	Procurement for Telecom Equipment	0%	Mon 2/8/21	Fri 3/12/21
Sub Task	CMDB updated with new equipment and any updated Cis	0%	Mon 3/8/21	Fri 3/12/21
Sub Task	Rack/Stack/Cable Telecom Equipment	0%	Mon 3/15/21	Fri 4/9/21
Sub Task	Build upgraded UCCE Components	0%	Mon 4/12/21	Fri 6/4/21
Sub Task	User Acceptance Testing	0%	Mon 6/7/21	Fri 6/18/21
Sub Task	Cutover	0%	Mon 7/5/21	Fri 7/9/21
Milestone	UCCE Upgrade Complete	0%	Fri 7/9/21	Fri 7/9/21
Milestone	LIPA Task #3.2.1.3 Complete	0%	Fri 7/9/21	Fri 7/9/21

4.2. Risk Management Plan

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

Category	Project Risk	Mitigation
Resources	No holistic solution owner from PSEG LI to oversee entirety of solution	PSEG LI to designate a resource to be the holistic oversight for entire solution
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	Work with the vendor to quickly resolve impediments.
Schedule / Cost	Timely approval of the project not received	Gain project approval before starting the project and adjust schedule accordingly after project approval.
Program Management	Lack of Scope/Requirements control including changes needed to legacy IT systems	Lack of scope/requirements control is the leading cause of budget and schedule overruns for this scale of project. It will be critical to closely define project scope/requirements, quickly clarify any uncertainties as they arise, and escalate as required. Any changes in scope/requirements must be agreed-to by the executive steering committee.
Program Management	Additional recommendations for improvement are developed and will need to be added to this workstream	Additional recommendations that have activities similar to those addressed in this project will be identified and logically grouped within tracks. Resource requirements will be identified. Where necessary, contract resources will be hired to back fill normal job responsibilities
Infrastructure	Delays in equipment delivery and/or communications	Thorough project management and escalation procedures.

4.3. Issue Resolution Plan

Issues and risks will be identified by the PSEG LI Team and the PMO 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 get 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.

5. Technical Execution Plan

5.1. Technical Approach

5.1.1 Technical Improvements:

The entire call center infrastructure/solution will be upgraded and/or replaced by a new on premise solution. This will be a more current version of the call center solution allowing for the use of current IP based communications technologies and to remain in compliance with vendor support agreements.

5.2. Quality Assurance Plan

1 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.
2 The deliverables will follow the following QA processes:
   a. Team lead review and signoff
   b. Peer Review (PSEG)
   c. Subject Matter Advisor Review as necessary
   d. PSEG Signoff by PSEGLI CIO and President & COO of PSEGLI
   e. Independent Verification and Validation by LIPA CIO

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. A final Project Closure Document will be delivered once all LIPA Recommendations in this implementation plan are completed.

Project Artifacts	Description
Low Level Technical Design	Detailed Design documenting specific features, functions and configurations required for the Cisco Upgrade
Vendor SOW	Statement of Work to cover Cisco Upgrade implementation
CMDB Updates	CMDB updated with all new hardware, software changes and telecom circuitry

Revision History

Name	Date	Reason for Changes	Version
David Nidoh	1/13/2021	initial draft	1.0 draft 1

PSEG Long Island

Project Implementation Plan

for

Isaias Task Force Recommendation Implementations

Recommendation No. 3.2.2.9

Project Title: 3.2.2.9 The IVR and OMS communication protocol should be reviewed in detail and redesigned so that all messages between the two components are agreed, understood, verified to be operational and tested against error conditions such as sending duplicate outage reports.

Table of Contents

1. Project Definition

This implementation plan is focused on creating a communication protocol for data that is sent between IVR and OMS. This plan will outline the necessary project activities that are required to eliminate error conditions and duplicate outage reports.

1.1. Project Purpose, Objectives, and Success Criteria

Project Objectives: Reduce or eliminate duplicate / erroneous outage submissions from propagating into OMS. Provide additional visibility into the data for reporting and monitoring purposes.

Project End State and Success Criteria*:* Error conditions and duplicate outage reports are eliminated. Changes made to the IVR / HVCA / OMS integration have greatly reduced the duplicate submission incidence rate. Additionally, new fields were added to improve monitoring and triage of outage submissions. The combination of these updates reduces the inconsistencies found during the storm. The end state is a more robust architecture with additional monitoring information which will allow a newly designated system data administrator to more accurately monitor the incoming messaging and reject erroneous outage tickets.

2. Project Deliverables:

Describe applicable Project Deliverables:

Deliverable	Delivery Date	Comments
Tested and deployed updated IVR and OMS protocols.	5/11/2021	See section 4.0 for detailed project plan

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
- Project implementation timeline is planned to complete all activities ahead of storm season
- XTENSIBLE is responsible for developing, testing and deploying the Sonic ESB middleware between the interfaces and the OMS.
- Required environments will be available to perform testing of the OMS system and integration points with IVR

2.1.2 Dependencies:

- CGI to make any required core development changes to the OMS v6.7 to enable performance
- 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
- XTENSIBLE to make any require core development changes to the Sonic ESB middleware between the interfaces and the OMS.

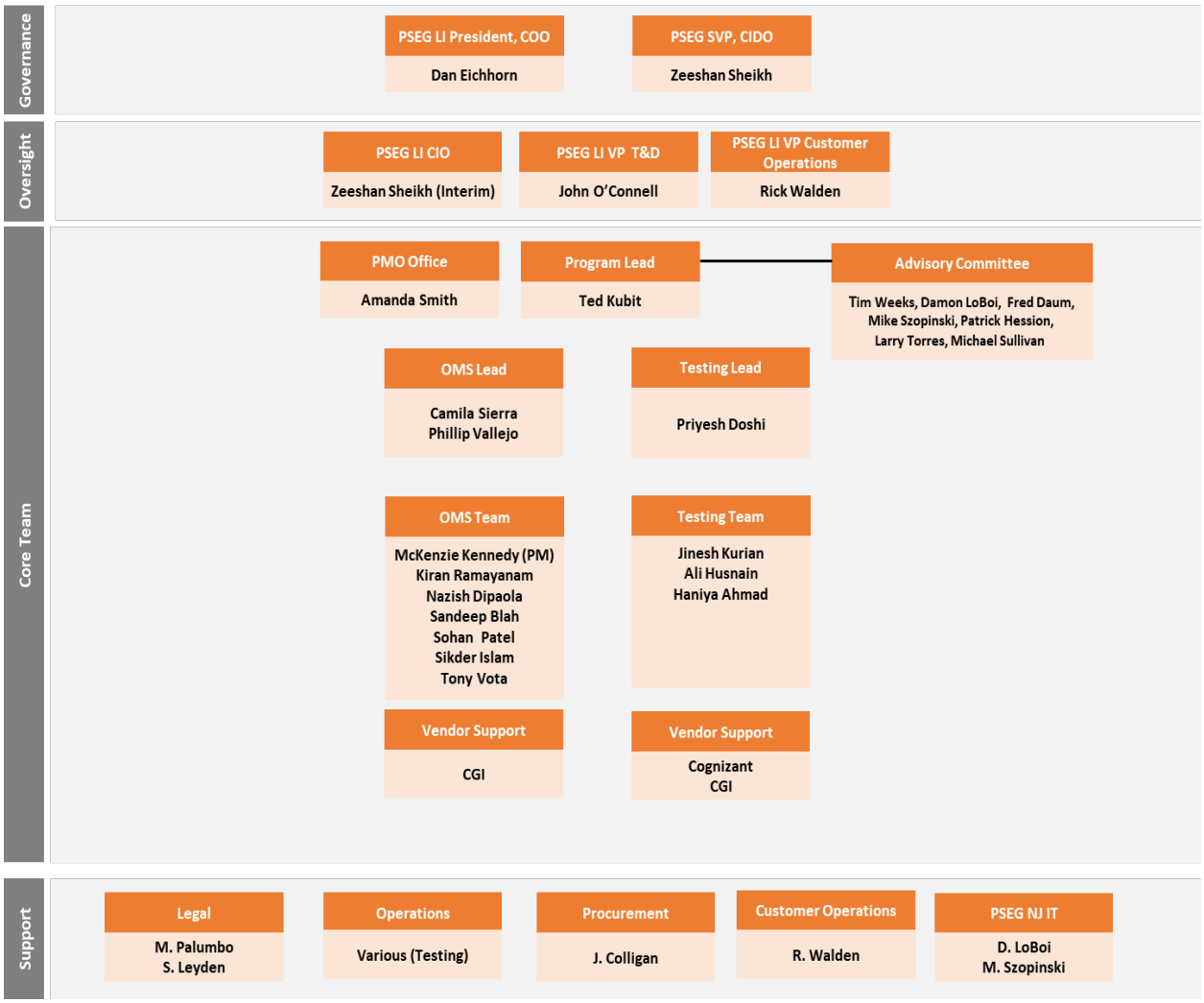
- CGI is required to make any necessary modifications to the OMS web services to provide outage status and report outages
- The timeline to complete the recommendations is dependent on procurement of new hardware required for the re-platform of OMS v6.7
- The timeline is dependent on alignment of overall 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 *defined* • Providing guidance and input on *key project decisions* • Challenging the project team where appropriate • Approving major *changes to the project's scope, objectives, timelines, costs, etc.* • Acting as the decision maker for issues requiring *escalation* • Removing institutional barriers when *they arise by serving as a project advocate*
PSEG LI CIO	Zeeshan Sheikh (Interim)	• Ensuring *workstreams adhere to guiding principles as defined by project leadership* • Managing issues and decision making • Remov*ing obstacles that impede the success of the overall project Providing strategic guidance* • Challenging the project team where appropriate • Approve procurement of external parties (as needed)
Advisory Committee Members	Tim Weeks Damon LoBoi Mike Szopinski Fred Daum Patrick Hession Larry Torres Michael Sullivan	• Providing guidance and input o*n 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 pr*oject team*
Team Lead	Camila Sierra Kirankumar Ramayanam Phillip Vallejo	• Drive workstream tasks and deliver recommendations for Solution Design Specification • Provide support for Testing • Aid in the developme*nt functional requirements* • Provide input on requirement / design • Coo*rdinating Business Resources to support the project* • Key Point of contact to 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
Project Manager	McKenzie Kennedy	• Reporting overall status of the project to Stakeholders and Program Leadership • Identifying and escalating resource issues • Providing status reports for delivery to internal and external stakeholders (LIPA, DPS) • Manage resource*s, schedule, issues, risks and change requests* • Process development, requirements definition, • Providing subject matter expertise to th*e 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*tion, functional design* • Technical Design • Supporting vendor questions and workshops • Testing Execution
Test Lead	Sandeep Blah Jinesh Kurian	• Providing overall management across testing activities • Develop Test Strategy • Develop Test Data
Test Coordinator	Sikder Islam	• 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 development • Environment 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 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
		  • Assist with Environment setup
		  • Coordinating Development activities
		  • Assist with Technical Design and Architecture
		• Assist 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 Authority	Mujib Lodhi, Rick Shansky	• Overall oversight of the entire project portfolio
Department of Public Service	Joseph Suich, Kevin Wisely	• Overall oversight of the entire project portfolio

4. Project Plan

4.1. Project Work Plan

Type	Task Name	% Complete	Start	Finish
Recommendation	**The IVR and OMS communication protocol should be reviewed in detail and redesigned so that all messages between the two components are agreed, understood, verified to be operational and tested against error conditions such as sending duplicate outage report.**	**10%**	**Mon 11/2/20**	**Tue 5/11/21**
Task	Analyze current state architecture of Intrado	100%	Mon 11/16/20	Tue 11/24/20
Task	Host design sessions to produce future state architecture for interface improvements	100%	Mon 11/9/20	Fri 11/20/20
Task	Create a recommendation for future architecture	100%	Mon 11/9/20	Fri 11/20/20
Task	Conduct RCA testing to identify issues in the interface for remediation	100%	Mon 11/2/20	Fri 11/6/20

Task	Investigate outcome of RCA testing to determine appropriate fix for issues surrounding calls	100%	Mon 11/9/20	Tue 11/10/20
Task	Document changes and update procedures	0%	Wed 1/20/21	Tue 2/2/21
Document	***Standard Operating Procedure / Go-Live Ticket***	***0%***	***Tue 2/2/21***	***Tue 2/2/21***
Task	Implement Null ETR	***100%***	Mon 10/19/20	Fri 10/23/20
Task	Document changes and update procedures	0%	Wed 1/20/21	Tue 2/2/21
Document	***Standard Operating Procedure / Go-Live Ticket***	***0%***	***Tue 2/2/21***	***Tue 2/2/21***
Parent Task	**Backup Leg Changes**	**17%**	**Fri 11/20/20**	**Tue 5/11/21**
Task	Intrado to provide functional Design documentation for backup leg	100%	Fri 11/20/20	Mon 1/11/21
Task	PSEG to review functional design for backup leg and sign off	25%	Mon 1/11/21	Fri 1/15/21
Task	Final quote/Intrado director approval	0%	Mon 1/18/21	Fri 1/22/21
Task	To invoke and finalize PO process for Intrado	0%	Mon 1/18/21	Fri 1/22/21
Document	***Complete RTM***	***0%***	***Mon 1/18/21***	***Fri 1/22/21***
Task	LIPA Review	0%	Fri 1/22/21	Fri 1/22/21
Task	Intrado to create schedules/ staff resources/ start development (backup leg)	0%	Mon 1/25/21	Fri 1/29/21
Task	Intrado Build /Development for backup leg short term changes	0%	Mon 2/1/21	Fri 3/12/21
Task	Middleware Development to incorporate Intrado changes	0%	Mon 2/1/21	Fri 2/26/21
Task	OMS Development to incorporate Intrado changes	0%	Mon 2/1/21	Fri 2/26/21
Task	SIT / UAT testing of changes in pre-production environment	0%	Mon 3/15/21	Fri 4/9/21
Task	Develop solution documentation	0%	Mon 4/5/21	Fri 4/9/21
Document	***Document: Solution Design***	***0%***	***Fri 4/9/21***	***Fri 4/9/21***
Task	Performance testing	0%	Mon 4/12/21	Fri 4/23/21
Task	Penetration testing and data security and approval of build (code)	0%	Mon 4/26/21	Fri 5/7/21
Task	Go/ No-go	0%	Mon 5/10/21	Mon 5/10/21
Task	Solution Deployment	0%	Tue 5/11/21	Tue 5/11/21
Document	*Document: Standard Operating Procedures / Go - Live*	0%	*Tue 5/11/21*	*Tue 5/11/21*
Parent Task	**Primary Leg Changes**	**0%**	**Mon 1/4/21**	**Wed 4/14/21**
Task	Intrado to provide functional Design documentation for primary leg	0%	Mon 1/4/21	Fri 1/15/21

Task	PSEG LI to review functional design for primary leg	0%	Mon 1/18/21	Tue 1/19/21
Task	PSEG LI to invoke and finalize PO process for Intrado	0%	Wed 1/20/21	Tue 1/26/21
Task	Intrado to create schedules/ staff resources/ start development (primary leg leg)	0%	Wed 1/27/21	Tue 2/2/21
Task	Intrado to finalize development for primary leg short term changes	0%	Wed 2/3/21	Tue 3/16/21
Task	Middleware Development to incorporate Intrado changes	0%	Wed 2/3/21	Wed 3/3/21
Task	OMS Development to incorporate Intrado changes	0%	Wed 2/3/21	Wed 3/3/21
Task	SIT / UAT testing of changes in pre-production environment	0%	Wed 3/17/21	Tue 4/13/21
Task	Performance testing	0%	Wed 3/17/21	Tue 3/30/21
Task	Penetration testing and data security review and approval of Build (Code)	0%	Wed 3/31/21	Tue 4/13/21
Task	Change Management	0%	Wed 3/17/21	Tue 4/13/21
Task	Go/No-Go	0%	Wed 4/14/21	Wed 4/14/21
Task	Solution Deployment	0%	Wed 4/14/21	Wed 4/14/21
Milestone	**Primary Leg Build Complete**	**0%**	**Wed 4/14/21**	**Wed 4/14/21**
Deliverable	**Tested and deployed updated IVR and OMS protocols**	**0%**	**Tue 5/11/2021**	**Tue 5/11/2021**

4.2. Risk Management Plan

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 and they are available 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, hire contract resources to back fill normal job responsibilities
Resources	No holistic solution owner from PSEG LI to oversee entirety of solution	PSEG LI to designate a resource to be the holistic oversight for entire solution

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 issues. Work with the vendor to quickly resolve 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 complete the project to the implementation plan. Clearly identify the steps that will be taken to anticipate this complexity in future projects.
Program Management	Lack of Scope/Requirements control including changes needed to legacy IT systems	The project scope has been defined; clear change control process will be established by the PMO to address requests for change
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 will be impacted.	Closely monitor delivery of hardware and perform as many tasks as possible in parallel to mitigate any potential delays.

4.3. Issue Resolution Plan

Issues and risks will be identified by the PSEG LI Team and the PMO 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 get 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).

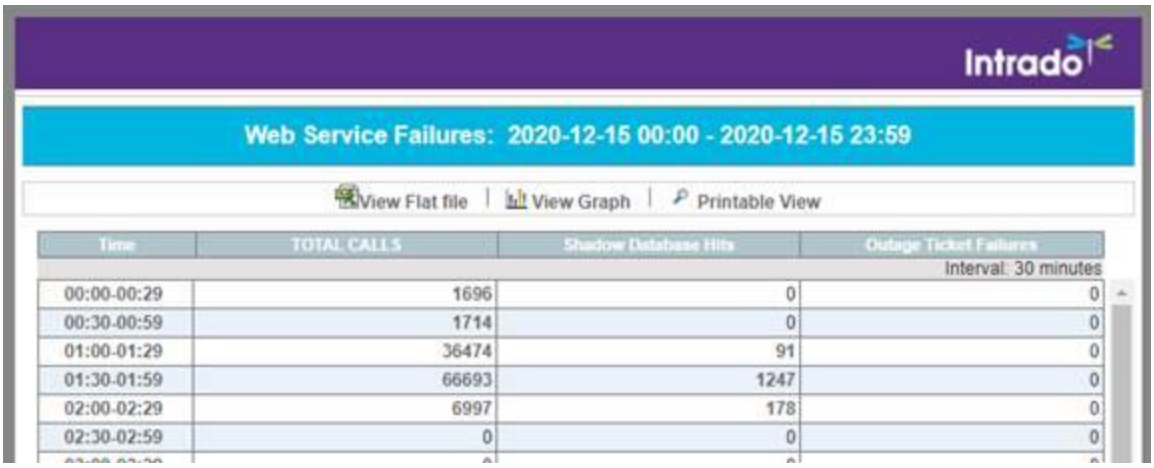
5. Technical Execution Plan

5.1. Technical Approach

5.1.1 Intrado Changes:

The team has performed a review of the monitoring applications on the Intrado side and added additional names of key resources to enable PSEG LI to be more informed of any issues that occur on the Intrado side.

We monitor the Intrado platform as well for any shadow database hits and outage ticket failures. (Note: the data below is from a stress test). This is also monitored by the NOC.


Intrado

Web Service Failures: 2020-12-15 00:00 - 2020-12-15 23:59

View Flat file | View Graph | Printable View

Time	TOTAL CALLS	Shadow Database Hits	Outage Ticket Failures
			Interval: 30 minutes
00:00-00:29	1696	0	0
00:30-00:59	1714	0	0
01:00-01:29	36474	91	0
01:30-01:59	66693	1247	0
02:00-02:29	6997	178	0
02:30-02:59	0	0	0

5.1.2 Implement Null ETR

Implementation of the Null ETR functionality will closely follow the work done on the deployment on the CGI v5.5 OMS. Configuration changes will be made to all defined interfaces to provide customers with Null ETRS while PSEG assesses damage. Existing test scripts and procedures will be updated to address any differences between the OMS versions, and external applications.

5.1.3 Intrado Primary / Backup Leg Improvements

Changes made on the Intrado side to incoming outage submission XMLS will add additional information for outage source and submission time which will help in monitoring and determining erroneous reports. These changes will be propagated to the ESB and OMS.

Stale threshold configuration has been reduced to two hours for outages submitted through HVCA to the queue to reduce the likelihood of duplicate outage submissions.

5.2. 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).

Test plan and test results will be signed off by PSEGLI CIO and President & COO of PSEGLI, and shared with LIPA upon completion

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


Stress Test Data Model

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. A final Project Closure Document will be delivered once all LIPA Recommendations in this implementation plan are completed.

Project Artifacts	Description
Design Specification Document	Documentation of the solutions, their configuration and constraints.
Test Strategy & Plans	Test cases & test data are meeting the design requirements
Test Execution Results	Test results indicate the design requirements accomplished.
Standard Operating Procedure Document	Production Support team including all applicable Production Acceptance, SAP Change Management and IT Change Management documentation and approvals
Go-Live Confirmation Document	The application has been put into production environment and the Company's end users have the ability to access and use the application and its functionality as designed

Revision History

Name	Date	Reason for Changes	Version
McKenzie Kennedy	12/9/2020	Initial Draft	1.0 draft 1
Kirankumar Ramayanam	12/10/2020	Reviewed and comments added	1.0 draft 2
Alex Kniazev / Phil Vallejo	1/13/2021	Revised workplan, expanded technical approach	2.0

PSEG Long Island

Project Implementation Plan

For Isaias Task Force Recommendation Implementations

Recommendation No. 3.2.3.1

Project Title: 3.2.3.1 At the beginning of storm planning and throughout the storm, designate a system data administrator dedicated to monitor, on a continuous basis, the timeliness, accuracy, and integrity of the information coming from OMS to Kubra

Table of Contents

1. Project Definition

PSEG Long Island provides multiple digital channels to customers and stakeholders for both routine and storm and outage related communications. Routine communications include account, billing, and energy usage information; Storm and outage communications include downed wire and outage reporting, customer status and estimated restoration times; overall system status and service restoration activities; and pre-storm notifications.

The project goal is to verify PSEG LI designates a trained data administrator who proactively monitors the interface between OMS and Kubra using documentation created to ensure a standardized monitoring process. While the recommendation seeks to assign a data administrator, PSEG LI will look to create a role which can be transitioned quickly between resources and can be performed for the entire duration of a storm. Special attention will be given to provide the role with the right processes and technologies to monitor in all storm situations.

Any mention of the "Digital Channels" in this document refers to the following channels:

- Kubra Notifi / Outage Map

1.1. Project Purpose, Objectives, and Success Criteria

1.1.1 Project Objectives:

The objectives of the project are:

1. Designate a system data administrator dedicated to monitor on a continuous basis, the timeliness, accuracy and integrity of the information coming from the OMS to Kubra application
2. Train data administrator on appropriate procedures to monitor on a continuous basis the data coming from OMS to Kubra
3. Create documentation around the various processes for monitoring Kubra OMS interface

1.1.2 Project End State and Success Criteria:

System data administrator(s) trained. Roles and responsibilities defined. Processes and procedures for monitoring and corrective or preventive actions developed, documented and tested, including for alternative data source and Outage Map adjustments per 3.2.3.2 and 3.2.3.3.

2. Project Deliverables:

The following are the list of deliverables that will be delivered as part of the project:

Deliverable	Delivery Date	Comments
Kubra systems data administrator role, processes and procedures documentation, including training and designation plans	3/31/2021	

2.1. Assumptions, Dependencies, and Constraints

2.1.1 Assumptions:

- PSEG LI has the necessary resources in place from the customer technology, NOC, and application team to staff the data administrator role
- If there are no available PSEG resources, resource procurement and onboarding tasks will have to be performed
- Vendor resources will need to be available to provide documentation and answer question on monitoring applications not in control by PSEG LI
- Resource available to help on documentation of monitoring processes

2.1.2 Dependencies:

- PSEG LI team has a dependency on Kubra to provide SME time for monitoring plan creation and documentation
- PSEG LI has a dependency on XTENSIBLE / OMS team for monitoring plan creation and documentation
- PSEG LI has a dependency on CGI for monitoring plan creation and documentation

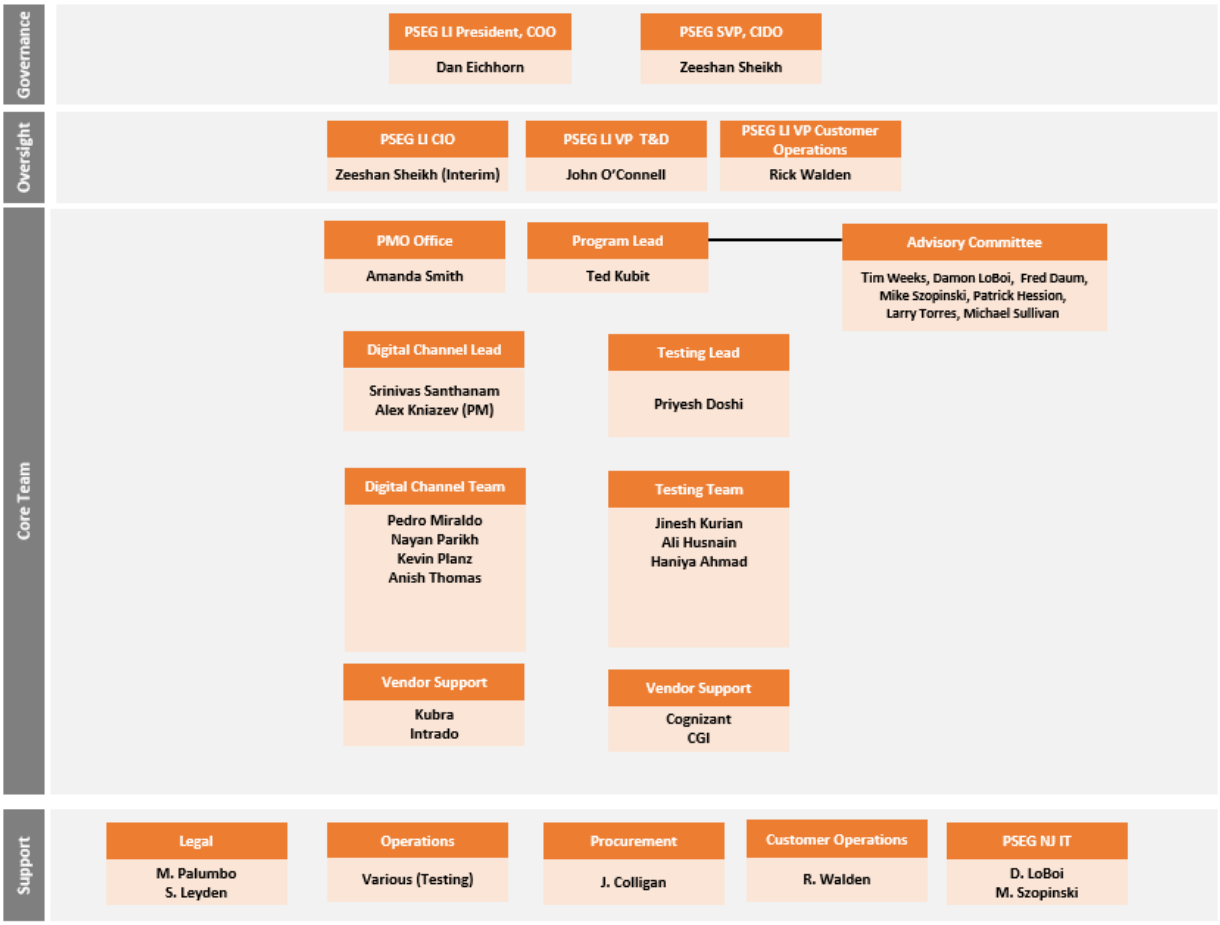
2.1.3 Constraints:

- Competing projects at PSEG 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 Digital Channels Team and Testing Team along with vendor support from Kubra, Intrado, and Cognizant will implement the Digital Channels project. The chart below shows the internal project organization and the groups responsible for the Digital Channels project:



3.1.1 Roles and Responsibilities :

Roles and responsibilities for the Digital Channels Enhancement project are outlined in the table below:

Role	Name	Responsibilities
Steering Committee	Dan Eichhorn *(Chair)* Zeeshan Sheikh John O'Connell Rick Walden	• Championing the PSEG LI Storm Restoration initiative • Establishing guiding principles for the project • Ensuring project activities remained aligned with the guiding principles as defined • Providing guidance and input on key project decisions • Challenging the project team where appropriate • Approving major changes to the project's scope, objectives, timelines, costs, etc. • Acting as the decision maker for issues requiring escalation

		• Removing institutional barriers if and when they arise by serving as a project advocate
Leadership	PSEG LI CIO - Zeeshan Sheikh (Interim)	• Ensuring workstreams adhere to guiding principles as defined by project leadership • Managing issues and decision making • Removing obstacles that impede the success of the overall project Providing strategic guidance • Challenging the project team where appropriate • Approve procurement of external parties (as needed)
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 obstacles that impede the success of the overall project • Providing subject matter expertise to the project • Challenging the project team where appropriate
Digital Channel Lead	Srinivas Santhanam / Alex Kniazev (ACN)	• Drive workstream tasks and deliver recommendations for Solution Design Specification • Provide support for Testing • Aid in the development functional requirements • Provide input on requirement / design • Coordinating Business Resources to support the project • Key Point of contact to for questions from the HVCA IVR vendor, Outage Map vendor and Xtensible Team • Providing sign off for deliverables that require business input/acceptance • Delivering the Digital Channels project on time and on budget
Project Manager	Kevin Planz	• Reporting overall status of the project to Stakeholders and Program Leadership • Identifying and escalating 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
Technical Architect	Pedro Miraldo	• Supporting Build/Test/Deploy Activities • Environment setup • Assist in the configuration of the Digital Channels • Coordinating Development activities • Technical Design • Testing Lead • Transfer of Environments

Business Lead	Nayan Parikh	• Process development, requirements definition, functional design • Technical Design • Supporting vendor questions and workshops Testing Execution
Test Lead	Sikder Islam	• Test Script Development • Test Script Execution for Assembly / Unit Test • Test Execution
Environment Lead	Anish Thomas	• Technical Design development • Environment design support
Test Project Manager	Priyesh Doshi	• Reporting overall testing status of the project to Stakeholders and Program Leadership • Identifying and escalating resource issues • Developing Testing Dashboard to accurately display current test execution • Manage resources, schedule, issues, risks and change requests • Providing testing subject matter expertise to the project • Defect Management

3.2. Other Stakeholders

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

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

4. Project Plan

4.1. Project Work Plan

LIPA ID	Type	Task Name	Current Status	% Complete	Target Start Date	Target Finish Date
3.2.3.1	**Recommendation**	**At the beginning of storm planning and throughout the storm, designate a system data administrator dedicated to monitor, on a continuous basis, the timeliness, accuracy, and integrity of the information coming from OMS to Kubra.**	**In Progress**	**11%**	**Tue 12/1/20**	**Mon 3/22/21**
3.2.3.1	Subtask	Preliminary Review of Tier 1 implementation plan responses (align on response and direction)	Completed	100%	Mon 1/4/21	Fri 1/8/21
3.2.3.1	Subtask	Submission date of the Tier 1 implementation plan responses to LIPA	Completed	100%	Mon 1/18/21	Mon 1/18/21
3.2.3.1	Subtask	PSEG to Identify System Data Admin Resources	In Progress	33%	Tue 12/1/20	Fri 1/15/21

3.2.3.1	Subtask	Onboard Resources (As Needed)	Not Started	0%	Mon 1/18/21	Fri 2/12/21
3.2.3.1	Subtask	Identify Application targets and thresholds	Not Started	0%	Mon 2/15/21	Mon 2/15/21
3.2.3.1	*Milestone*	*MS: Resources Identified*	*Not Started*	*0%*	*Wed 1/17/21*	*Wed 2/17/21*
3.2.3.1	Task	Develop and Document Policies, Processes and Procedures	Not Started	0%	Tue 1/19/21	Mon 3/22/21
3.2.3.1	Subtask	Engage with New Jersey SMAs to discuss best practices for monitoring and documentation	Not Started	0%	Tue 1/19/21	Wed 1/20/21
3.2.3.1	Subtask	Develop Communication Plan	Not Started	0%	Thu 1/21/21	Wed 1/27/21
3.2.3.1	**Document**	Communication Plan	Not Started	0%	Wed 1/27/21	Wed 1/27/21
3.2.3.1	Subtask	Steering Committee Charter	Not Started	0%	Thu 1/28/21	Thu 1/28/21
3.2.3.1	**Document**	Steering Committee Charter Document	Not Started	0%	Thu 1/28/21	Thu 1/28/21
3.2.3.1	Subtask	Develop a standard template for monitoring reports	Not Started	0%	Fri 1/29/21	Mon 2/1/21
3.2.3.1	**Document**	Standard template for monitoring reports	Not Started	0%	Mon 2/1/21	Mon 2/1/21
3.2.3.1	Subtask	Documenting storm procedures for monitoring	Not Started	0%	Tue 2/2/21	Mon 2/8/21
3.2.3.1	**Document**	Storm procedures for monitoring	Not Started	0%	Tue 2/2/21	Mon 2/8/21
3.2.3.1	Subtask	Developing an Escalation Path when monitoring shows errors	Not Started	0%	Tue 2/2/21	Mon 2/8/21
3.2.3.1	**Document**	Escalation Path	Not Started	0%	Tue 2/2/21	Mon 2/8/21
3.2.3.1	Subtask	Develop Cadence for monitoring reports (timeline of when reports are provided)	Not Started	0%	Tue 2/9/21	Mon 2/15/21
3.2.3.1	**Document**	Cadence for monitoring reports	Not Started	0%	Tue 2/9/21	Mon 2/15/21
3.2.3.1	Subtask	Document Corrective actions	Not Started	0%	Tue 2/9/21	Mon 2/15/21
3.2.3.1	**Document**	Corrective actions	Not Started	0%	Tue 2/9/21	Mon 2/15/21
3.2.3.1	Subtask	Document Preventative actions	Not Started	0%	Tue 2/9/21	Mon 2/15/21
3.2.3.1	**Document**	Preventative actions	Not Started	0%	Tue 2/9/21	Mon 2/15/21
3.2.3.1	Subtask	Customer Tech - Documented manual updates to the map	Not Started	0%	Tue 2/16/21	Tue 2/16/21
3.2.3.1	**Document**	Customer Tech	Not Started	0%	Tue 2/16/21	Tue 2/16/21
3.2.3.1	Subtask	Maintenance schedule	Not Started	0%	Wed 2/17/21	Wed 2/17/21
3.2.3.1	Subtask	Vendor Management / Escalation	Not Started	0%	Wed 2/17/21	Tue 2/23/21
3.2.3.1	Subtask	Develop Troubleshooting SOP's	Not Started	0%	Wed 2/17/21	Wed 2/17/21
3.2.3.1	**Document**	Troubleshooting SOP’s	Not Started	0%	Wed 2/17/21	Wed 2/17/21
3.2.3.1	Task	Schedule/ Shift Rotation	Not Started	0%	Wed 2/17/21	Wed 2/17/21
3.2.3.1	Subtask	Build template Process improvement documentation (includes gap analysis,	Not Started	0%	Wed 2/24/21	Thu 2/25/21

		identification of proactive solutions and RCA after each storm event)				
3.2.3.1	Subtask	Walk through of all Processes and Procedures with Trained Resources to Validate	Not Started	0%	Fri 2/26/21	Thu 3/4/21
3.2.3.1	**Document**	Walk through of all Processes and Procedures with Trained Resources to Validate	Not Started	0%	Fri 2/26/21	Thu 3/4/21
3.2.3.1	Subtask	Steering Committee Review of documentation	Not Started	0%	Fri 3/5/21	Mon 3/8/21
3.2.3.1	*Milestone*	*MS: Steering Committee Approval*	*Not Started*	*0%*	*Mon 3/8/21*	*Mon 3/8/21*
3.2.3.1	Subtask	System Data Administrator Training (Business function, system, Storm Scenario)	Not Started	0%	Tue 3/9/21	Mon 3/22/21

4.2. Risk Management Plan

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

Category	Project Risk	Mitigation
Resources	Resource constraints from Digital 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
Resources	No holistic solution owner from PSEG LI to oversee entirety of solution	PSEG LI to designate a resource to be the holistic oversight for entire solution
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	Work with the vendor to quickly resolve impediments
Schedule / Cost	The activities outlined in the Digital Channels project become more complex than anticipated	Review the additional work required to complete the project with the steering committee. Add the scope required complete the project to the implementation plan. Clearly identify the steps that will be taken to anticipate this complexity in future projects
Program Management	Lack of Scope/Requirements control including changes needed to legacy IT systems	Lack of scope/requirements control is the leading cause of budget and schedule overruns for this scale of project. It will be critical to closely define project scope/requirements, quickly clarify any uncertainties as they arise, and escalate as required. Any changes in

		scope/requirements must be agreed-to by the executive steering committee
Program Management	Additional recommendations for improvement are developed and will need to be added to this workstream	Additional recommendations that have activities similar to those addressed in this project will be identified and logically grouped within tracks. Resource requirements will be identified. Where necessary, contract resources will be hired to back fill normal job responsibilities

4.3. Issue Resolution Plan

Issues and risks will be identified by the PSEG LI Team and the PMO 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 get 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.

5. Technical Execution Plan

5.1. Technical Approach

This recommendation calls for the designation of a system data administrator, the creation of documentation around the monitoring processes they will undertake as well as a role description of the position.

- For training resources, we will use a combination of Microsoft Office, web-based training such as Service Now/ Empower
- Documentation will be created in Microsoft office

5.2. Quality Assurance Plan

5.2.1 QA Methodology:

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.

- The deliverables will follow the following QA processes:
  - Team lead review and signoff
  - Peer Review (PSEG)
  - Subject Matter Advisor Review as necessary
  - PSEG Signoff by PSEGLI CIO and President & COO of PSEGLI
  - Independent Verification and Validation by LIPA CIO
- 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)
- Test plan and test results will be signed off by PSEGLI CIO and President & COO of PSEGLI, and shared with LIPA upon completion

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. A final Project Closure Document will be delivered once all LIPA Recommendations in this implementation plan are completed.

Deliverable	Delivery Date	Comments
Kubra systems data administrator role, processes and procedures documentation, including training and designation plans	3/31/2021	

Revision History

Name	Date	Reason for Changes	Version
Haniya Ahmad	12/10/2020	Initial Draft	1.0
Kevin Planz / Srini Santhanam	12/10/2020	Updated draft	1.1

PSEG Long Island

Project Implementation Plan

For Isaias Task Force Recommendation Implementations

Recommendation No. 3.2.4.3

Project Title: 3.2.4.3 Introduce the capability to quickly decouple the web and mobile apps from the OMS, so that when unresponsiveness is detected, alternate messaging can be provided to the customer and the OMS can be relieved of incoming transactional pressure*

**This recommendation has been previously accepted with comments. The document has been updated to reflect comments received.*

Table of Contents

1. Project Definition

PSEG Long Island provides multiple digital channels to customers and stakeholders for both routine and storm and outage related communications. Routine communications include account, billing, and energy usage information; Storm and outage communications include downed wire and outage reporting, customer status and estimated restoration times; overall system status and service restoration activities; and pre-storm notifications.

The project goal is to verify that customers are still able to contact PSEG through the mobile and corporate website in the event of an OMS failure. The objectives as well as end state and success criteria of the project are defined below.

Any mention of the "Digital Channels" in this document refers to the following channels:

- PSEG LI Mobile App
- PSEG public website
- MyAccount Customer Portal

1.1. Project Purpose, Objectives, and Success Criteria

1.1.1 Project Objectives:

The objectives of the project are:

1. Introduce the capability to quickly decouple the web and mobile apps from the OMS when unresponsiveness is detected
2. Provide alternate messaging to the customer in the event OMS is unresponsive
3. Control processing conducted by OMS in real time during storm events

Note: *While the original intent of the recommendation refers solely to the mobile app and web interface with OMS, the solution PSEG LI is pursuing in decoupling the OMS will also address other digital channels including IVR, HVCA, Kubra, Google, Alexa.*

1.1.2 Project End State and Success Criteria:

Web and mobile apps are functional in the absence of OMS. Outage reports are directed to an alternative data sink which can be consumed by alternate and deferred pathways.

2. Project Deliverables

Deliverable	Delivery Date	Comments
Create Functional Design - OMS Reporting DB/ New Stored Procedure / Outage hub view/ Replication	Fri 1/29/21	Design documentation to capture requirements, create RTM
Create Technical Design - OMS Reporting DB/ New Stored Procedure / Outage hub view/ Replication	Wed 3/3/21	Technical details of solution build
Create Test Strategy / Test Plan	Fri 1/29/21	Test plan for initiative
Document Testing Results	Fri 3/26/21	Testing results for solution
Document Process Steps for operationalizing the solution (BCP)	Tue 3/30/21	Process documentation for solution
All configuration items in CDBM	Fri 4/7/2021	

2.1. Assumptions, Dependencies, and Constraints

2.1.1 Assumptions:

- PSEG LI has the necessary resources in place from an internal and third-party standpoint to complete all objectives/recommendations including implementation work as needed
- There will be no time included in the schedule for exploration of additional third-party vendors for enhanced solutions. The project team will move forward to implement recommendations and enhanced solutions for the existing PSEG LI framework and vendor partnerships
- Vendor resources will be available to provide SME time and answer any questions for respective applications
- Any data not sent to OMS will have to be resynced with OMS after transactional pressures are relieved
- Assuming team can leverage 5.5 OMS test environment
- Penetration testing can be done at the same time as performance testing
- Assuming no changes to outage hub view / schema in production OMS 5.5 for development purposes
- Assuming infrastructure DBA resources are available for stand up of database with no competing priority projects

2.1.2 Dependencies:

- PSEG LI has a dependency on XTENSIBLE for performing changes on the Sonic / MuleSoft ESB
- PSEG LI has a dependency on CGI in modifications made to the web services on the OMS to provide outage status and report outages
- PSEG LI has a dependency on the OMS team to ensure the OMS is stood up and available for end to end testing activities requiring the digital channels
- Solution developed for CGI OMS 5.5 will be ported over to 6.7
- Performance testing requirement for stored procedure and outage hub view

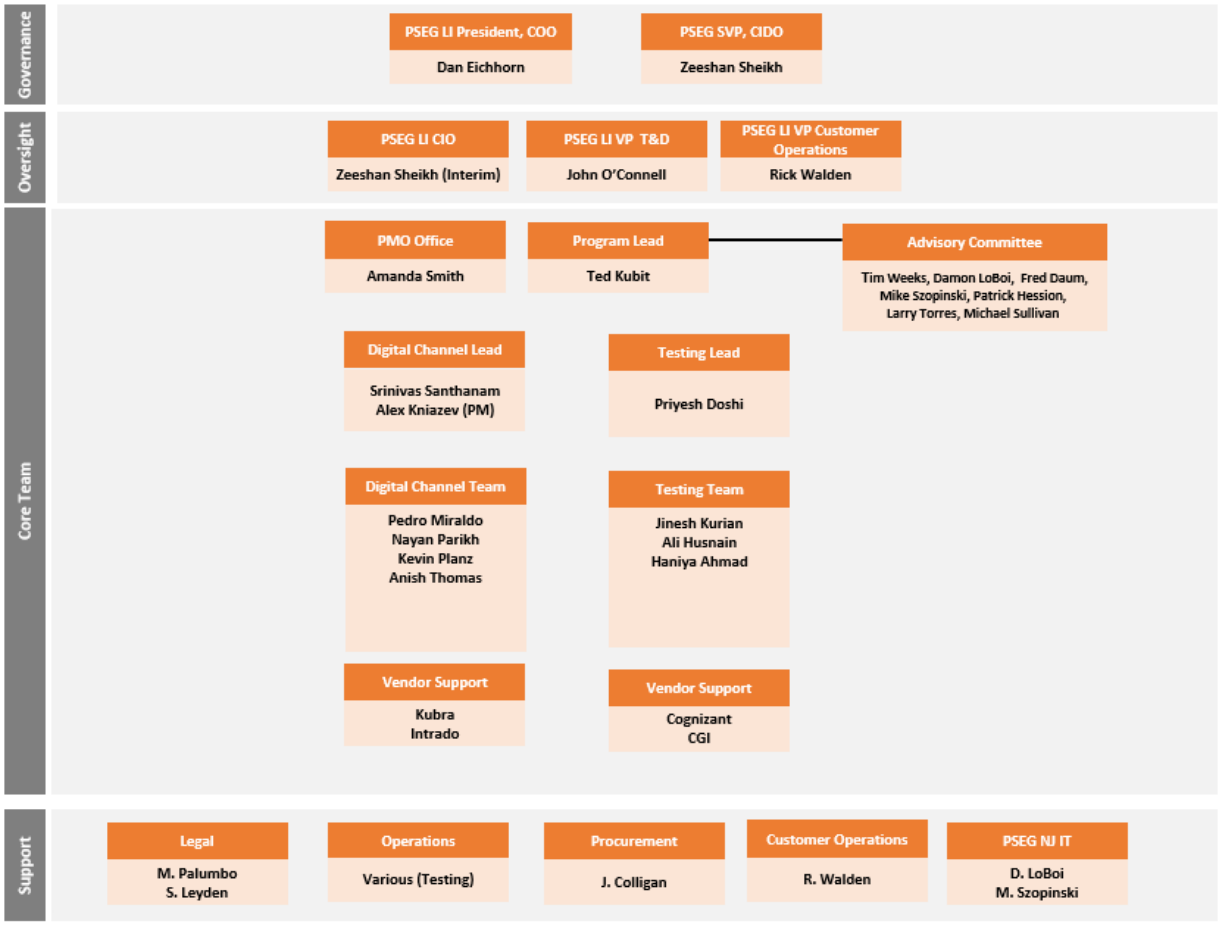
2.1.3 Constraints:

- Competing projects at PSEG 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 Digital Channels Team and Testing Team along with vendor support from Kubra, Intrado, and Cognizant will implement the Digital Channels project. The chart below shows the internal project organization and the groups responsible for the Digital Channels project:



3.1.1 Roles and Responsibilities :

Roles and responsibilities for the Digital Channels Enhancement project are outlined in the table below:

Role	Name	Responsibilities
Steering Committee	Dan Eichhorn *(Chair)* Zeeshan Sheikh John O'Connell Rick Walden	• Championing the PSEG LI Storm Restoration initiative • Establishing guiding principles for the project • Ensuring project activities remained aligned with the guiding principles as defined • Providing guidance and input on key project decisions • Challenging the project team where appropriate • Approving major changes to the project's scope, objectives,

		timelines, costs, etc. • Acting as the decision maker for issues requiring escalation • Removing institutional barriers if and when they arise by serving as a project advocate
Leadership	PSEG LI CIO - Zeeshan Sheikh (Interim)	• Ensuring workstreams adhere to guiding principles as defined by project leadership • Managing issues and decision making • Removing obstacles that impede the success of the overall project Providing strategic guidance • Challenging the project team where appropriate • Approve procurement of external parties (as needed)
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 obstacles that impede the success of the overall project • Providing subject matter expertise to the project • Challenging the project team where appropriate
Digital Channel Lead	Srinivas Santhanam / Alex Kniazev (ACN)	• Drive workstream tasks and deliver recommendations for Solution Design Specification • Provide support for Testing • Aid in the development functional requirements • Provide input on requirement / design • Coordinating Business Resources to support the project • Key Point of contact to for questions from the HVCA IVR vendor, Outage Map vendor and Xtensible Team • Providing sign off for deliverables that require business input/acceptance • Delivering the Digital Channels project on time and on budget
Project Manager	Kevin Planz	• Reporting overall status of the project to Stakeholders and Program Leadership • Identifying and escalating 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
Technical Architect	Pedro Miraldo	• Supporting Build/Test/Deploy Activities • Environment setup • Assist in the configuration of the Digital Channels • Coordinating Development activities • Technical Design • Testing Lead • Transfer of Environments

Business Lead	Nayan Parikh	• Process development, requirements definition, functional design • Technical Design • Supporting vendor questions and workshops Testing Execution
Test Lead	Sikder Islam	• Test Script Development • Test Script Execution for Assembly / Unit Test • Test Execution
Environment Lead	Anish Thomas	• Technical Design development • Environment design support
Test Project Manager	Priyesh Doshi	• Reporting overall testing status of the project to Stakeholders and Program Leadership • Identifying and escalating resource issues • Developing Testing Dashboard to accurately display current test execution • Manage resources, schedule, issues, risks and change requests • Providing testing subject matter expertise to the project • Defect Management

3.2. Other Stakeholders

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

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

4. Project Plan

4.1 Project Work Plan

LIPA ID	Type	Task Name	Current Status	% Complete	Start	Finish
3.2.4.3	**Recommendation**	**Decouple OMS from the website and Mobile App**	**In Progress**	**2%**	Wed 1/6/21	Wed 4/7/21
3.2.4.3	Subtask	Preliminary Review of Tier 1 implementation plan responses (align on response and direction)	Complete	100%	Wed 1/6/21	Fri 1/8/21
3.2.4.3	Subtask	Internal PSEG approval of proposed architecture	Complete	100%	Fri 1/15/21	Fri 1/15/21
3.2.4.3	Subtask	Submission date of the Tier 1 implementation plan responses to LIPA	In Progress	75%	Mon 1/18/21	Mon 1/18/21
3.2.4.3	Subtask	Confirm resources for stored procedure development / golden gate replication	In Progress	75%	Fri 1/15/21	Fri 1/15/21
3.2.4.3	Subtask	Create Functional Design - OMS Reporting DB/ New Stored Procedure / Outage hub view/ Replication	Not Started	0%	Mon 1/18/21	Fri 1/29/21
3.2.4.3	*Milestone*	*MS: RTM Documentation Complete / LIPA Review*	*Not Started*	*0%*	*Fri 1/29/21*	*Fri 1/29/21*
3.2.4.3	Subtask	Software license procurement for database and replication method (as needed)	Not Started	0%	Mon 2/1/21	Fri 2/12/21
3.2.4.3	Subtask	Design Review and Sign Off	Not Started	0%	Mon 2/1/21	Wed 2/3/21
3.2.4.3	*Milestone*	*MS: Design Complete*	*Not Started*	*0%*	*Wed 2/3/21*	*Wed 2/3/21*
3.2.4.3	**Build Phase**		**Not Started**	**0%**	**Thu 2/4/21**	**Wed 3/3/21**
3.2.4.3	Header Task	Develop stored procedure on 5.5 DR	Not Started	0%	Thu 2/4/21	Wed 3/3/21
3.2.4.3	Subtask	Create Technical Design - OMS Reporting DB/ New Stored Procedure / Outage hub view/ Replication	Not Started	0%	Thu 2/4/21	Wed 3/3/21
3.2.4.3	Subtask	Stand up and Configuration of new database	Not Started	0%	Mon 2/15/21	Fri 2/26/21
3.2.4.3	*Milestone*	*MS: Build Complete*	*Not Started*	*0%*	*Wed 3/3/21*	*Wed 3/3/21*
3.2.4.3	**Test Phase**		**Not Started**	**0%**	**Mon 1/18/21**	**Tue 4/6/21**
3.2.4.3	Subtask	Create Test Strategy / Test Plan	In Progress	25%	Mon 1/18/21	Fri 1/29/21
3.2.4.3	Subtask	Set up test data	Not started	0%	Mon 2/22/21	Fri 2/26/21

3.2.4.3	Subtask	SIT/load test of the solution with benchmark monitoring	Not Started	0%	Thu 3/4/21	Wed 3/17/21
3.2.4.3	Subtask	Defect Resolution	Not Started	0%	Thu 3/18/21	Wed 3/24/21
3.2.4.3	Subtask	SIT/ load test Review and Sign Off	Not Started	0%	Thu 3/25/21	Wed 3/31/21
3.2.4.3	*Milestone*	*MS: SIT / UAT Sign off*	*Not Started*	*0%*	*Wed 3/31/21*	*Wed 3/31/21*
3.2.4.3	Subtask	Document Testing Results	Not Started	0%	Thu 3/25/21	Fri 3/26/21
3.2.4.3	Subtask	Document Process Steps for operationalizing the solution (BCP)	Not Started	0%	Mon 3/29/21	Tue 3/30/21
3.2.4.3	**Document**	Review and sign off on final solution	Not Started	0%	Wed 3/31/21	Tue 4/6/21
3.2.4.3	*Milestone*	*MS: Solution Acceptance*	*Not Started*	*0%*	*Tue 4/6/21*	*Tue 4/6/21*
3.2.4.3	Subtask	Deployment of solution	Not Started	0%	Wed 4/7/21	Wed 4/7/21
3.2.4.3	*Milestone*	*MS: Solution Deployed*	*Not Started*	*0%*	*Wed 4/7/21*	*Wed 4/7/21*

4.1. Risk Management Plan

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

Category	Project Risk	Mitigation
Resources	Resource constraints from Digital 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
Resources	No holistic solution owner from PSEG LI to oversee entirety of solution	PSEG LI to designate a resource to be the holistic oversight for entire solution
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	Work with the vendor to quickly resolve impediments.
Schedule / Cost	The activities outlined in the Digital Channels project become more complex than anticipated	Review the additional work required to complete the project with the steering committee. Add the scope required complete the project to the implementation plan. Clearly identify the steps that will be taken to anticipate this complexity in future projects

Program Management	Lack of Scope/Requirements control including changes needed to legacy IT systems	Lack of scope/requirements control is the leading cause of budget and schedule overruns for this scale of project. It will be critical to closely define project scope/requirements, quickly clarify any uncertainties as they arise, and escalate as required. Any changes in scope/requirements must be agreed-to by the executive steering committee
Program Management	Additional recommendations for improvement are developed and will need to be added to this work stream	Additional recommendations that have activities similar to those addressed in this project will be identified and logically grouped within tracks. Resource requirements will be identified. Where necessary, contract resources will be hired to back fill normal job responsibilities

4.2. Issue Resolution Plan

Issues and risks will be identified by the PSEG LI Team and the PMO 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 get 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.

4.3. LIPA Reporting Plan

Weekly status reports for all recommendations, containing project progress and documentation will be provided to LIPA by Zeeshan Sheikh.

5. Technical Execution Plan

5.1. Technical Approach

5.1.1 Configuration of Applications:

For any changes to configuration of applications, vendors will be contacted when needed and internal infrastructure will be adjusted accordingly. Testing will be executed to verify changes are working as intended.

5.1.2 Changes to webservices:

Changes will need to be made to the GetTroubleTicket and GetOutages webservice to refactor and repoint (respectively) to the new database.

5.1.3 Changes to infrastructure:

PSEG LI will procure a new reporting database to be the source for providing outage status request responses as well as outage information for the customer facing outage map and municipal portal. This database is meant to relieve transactional pressure on the real time CGI OMS as well as the DR OMS system in production at PSEG. The current approach calls for the team to undergo a design effort to determine:

1. The method of replication from current OMS to the new database

2. Functionality review of a stored procedure which will replace the current functionality of the CGI OMS getlistcustomerinterruption webservice
3. The repointing of existing ESB webservices to query the new database
4. This new database will be used in conjunction with the ESB Queuing enhancements in recommendation 4.17 to provide customers with alternate messaging upon requests entering the queue

The current approach calls for the team to proceed with development for implementation on the current 5.5 DR database as this approach will allow for faster realization of benefits and performance improvements. The development effort for CGI OMS 5.5 will then be refactored for CGI OMS 6.7. Detailed design discussions occurring in the future could affect the approach as new information is obtained and efficiencies are explored.

5.2. Quality Assurance Plan

5.2.1 QA Methodology:

- 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
  The deliverables will follow the following QA processes:
  i. Team lead review and signoff
  ii. Peer Review (PSEG)
  iii. Subject Matter Advisor Review as necessary
  iv. PSEG Signoff by PSEGLI CIO and President & COO of PSEGLI
  v. Independent Verification and Validation by LIPA CIO

- 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)
- Test plan and test results will be signed off by PSEGLI CIO and President & COO of PSEGLI, and shared with LIPA upon completion

5.2.2 Test Scope:

Testing of incoming calls from a future storm will incorporate the following digital channels:

Channel	Test Plan (High Level)	Test Outcome
PSEG LI Mobile App	Simulate incoming outage calls from this channel	Verify Middleware captures incoming outage calls and prevents transfer to OMS
PSEG public website	Simulate incoming outage calls from this channel	Verify Middleware captures incoming outage calls and prevents transfer to OMS
MyAccount Customer Portal	Simulate incoming outage calls from this channel	Verify Middleware captures incoming outage calls and prevents transfer to OMS

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. A final Project Closure Document will be delivered once all LIPA Recommendations in this implementation plan are completed.

Deliverable	Delivery Date	Comments
Create Functional Design - OMS Reporting DB/ New Stored Procedure / Outage hub view/ Replication	Fri 1/29/21	Design documentation to capture requirements, create RTM
Create Technical Design - OMS Reporting DB/ New Stored Procedure / Outage hub view/ Replication	Wed 3/3/21	Technical details of solution build
Create Test Strategy / Test Plan	Fri 1/29/21	Test plan for initiative
Document Testing Results	Fri 3/26/21	Testing results for solution
Document Process Steps for operationalizing the solution (BCP)	Tue 3/30/21	Process documentation for solution
All configuration items in CDBM	Fri 7/30/2021	

Revision History

Name	Date	Reason for Changes	Version
Alexander Kniazev/Pedro Miraldo	12/10/2020	Initial Draft	1.0
Alex Kniazev/ Srini/Kevin	12/11/2020	Updated Draft	1.1

PSEG Long Island
Project Implementation Plan
for
Isaias Task Force Recommendation Implementations
Project Title: ETR Quality Control 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
3.2.5.3	30 Day Report	PSEG Long Island should also work to install end-to-end quality control measures for communication of ETRs. Consistency across communications channels is critical in developing confidence in the restoration effort.

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1. Project Definition

The Purpose of the Estimated Time of Restoration ("ETR") Quality Control Plan is to address LIPA's Tier 2 recommendation to install end-to-end quality control measures for communication of ETRs and consistency and confidence across communications channels. The Escalation Manager and the newly created and appointed ETR Manager will be responsible for administering and executing the deliverables outlined in this plan.

The recommendation is directly addressed and detailed in this plan and remediation efforts will begin immediately to the extent they are not already in process.

1.1. Project Purpose, Objectives, and Success Criteria

1.1.1 Project Objectives:

The Task Force identified several critical breakdowns in PSEG Long Island's ETR processes and communications; many of which contributed to the issues experienced during Tropical Storm Isaias. The goal of this plan is to focus on improving the accuracy of ETR communications during an event.

1.1.2 Project Scope:

PSEG Long Island experienced a breakdown of the ETR program after the storm caused in part by a lack of end-to-end quality control for ETR. ERIP-OPS-006 Estimated Time of Restoration (ETR) Strategy sets forth the process in which the ETR Strategy team will determine the ETR Strategy that will be communicated to internal stakeholders. Based upon the strategy, Corporate Communications will issue a press release. The press release will go through the approval process described herein. Once the press release is approved, it will be disseminated to internal stakeholders for communication to customers and external stakeholders. The new ETR Manager (as described in the ETR Manager plan) will be responsible for the administration of the quality control process for ETR customer communications.

1.1.3 Project End State and Success Criteria:

The project's goal is to develop a documented quality control process for ETR customer communications. The ETR Manager will administer the quality control process. The ETR Manager will report up to the Manager of Distribution Operations Support.[1]

2. Project Deliverables

The project's ultimate deliverable is a documented quality control process for ETR customer communications. The detailed work plan and status updates are listed in Section 4.1 Project Work Plan.

In an effort to improve ETR communications, PSEG Long Island has already revised the approval process for approving press releases and ETR notifications during a storm. See

[1] See Appendix I: PSEG Long Island Functional Organization

Appendix II: Storm Communications Approval Process.
In addition, the ETR Strategy document for Operations has been updated to detail the process for the development of ETRs by PSEG Long Island T&D Operations and is used in customer and stakeholder outage communications during all storm events. See Artifact section 5.

2.1. Assumptions, Dependencies, and Constraints

With any operating model changes, dependencies and ripple effects will conflict with other ongoing initiatives. PSEG Long Island will first address the changes at the executive leadership level and allow the future leadership team – in this case, the new ETR Manager and Manager of District Operations Support- to oversee the execution of this plan.

The primary constraint for this plan is the hiring cycle time. In the current business environment, recruiting, onboarding, and training employees takes time and should not be rushed. Nevertheless, the target date for completion of this aspect of the overall plan is by March 31, 2021. With this in mind, identifying these candidates will be a top priority for PSEG Long Island leadership.

3. Project Structure

3.1. Internal Project Organization

Dan Eichhorn will be the Executive Sponsor for this Project. John O'Connell will provide key executive level support and subject-matter expertise, along with the new Manager of District Operation Support. The new ETR Manager will provide project management support.

Role	Responsibilities
Project Sponsor Dan Eichhorn	• 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
Key Executive Support John O'Connell	• Provide strategic direction and input on governance
Project Management New ETR Manager	• Lead process to document internal controls

3.2. Other Stakeholders

The other key stakeholders are:

- PSEG parent company
- LIPA
- LIPA Board of Trustees
- Customers

4. Project Plan

4.1. Project Work Plan

The following outlines the timeline for completion of the key milestones. Senior Leadership is committed to achieving these milestones in order to address the Task Force recommendations.

Important underlying components of these milestones will necessarily include the end-to-end processes of identifying and hiring the right talent and realigning current resources to achieve higher transparency and accountability. PSEG Long Island is also committed to continuous improvement in the form of developing appropriate training and corrective action programs required to sustain effective ETR management once these key milestones are met.

ETR Quality Control Plan Milestones

Task	Owner	Current Status	Target End Date
PSEG Long Island should also work to install end-to-end quality control measures for communication of ETRs. Consistency across communications channels is critical in developing confidence in the restoration effort.	Suzanne Brienza	In Progress	03/31/2021
Update storm communication approval process	Ashley Chauvin	Complete	Complete
Document internal controls	Suzanne Brienza	Pending	03/31/2021
Submit updated internal control guidance to LIPA for review	Daniel Eichhorn	Pending	03/31/2021

4.2. Risk Mitigation Plan

Category	Project Risk	Mitigation
Resources	Filling the newly created senior management positions with capable and qualified personnel is essential to the success of any operating model change.	PSEG Long Island commits to continuously update the Task Force with hiring status updates in order to ensure transparency in the talent acquisition process and alert the Task Force of any delays that could push back the organizational structure changes PSEG Long Island is committed to making in the timeframe outlined above.

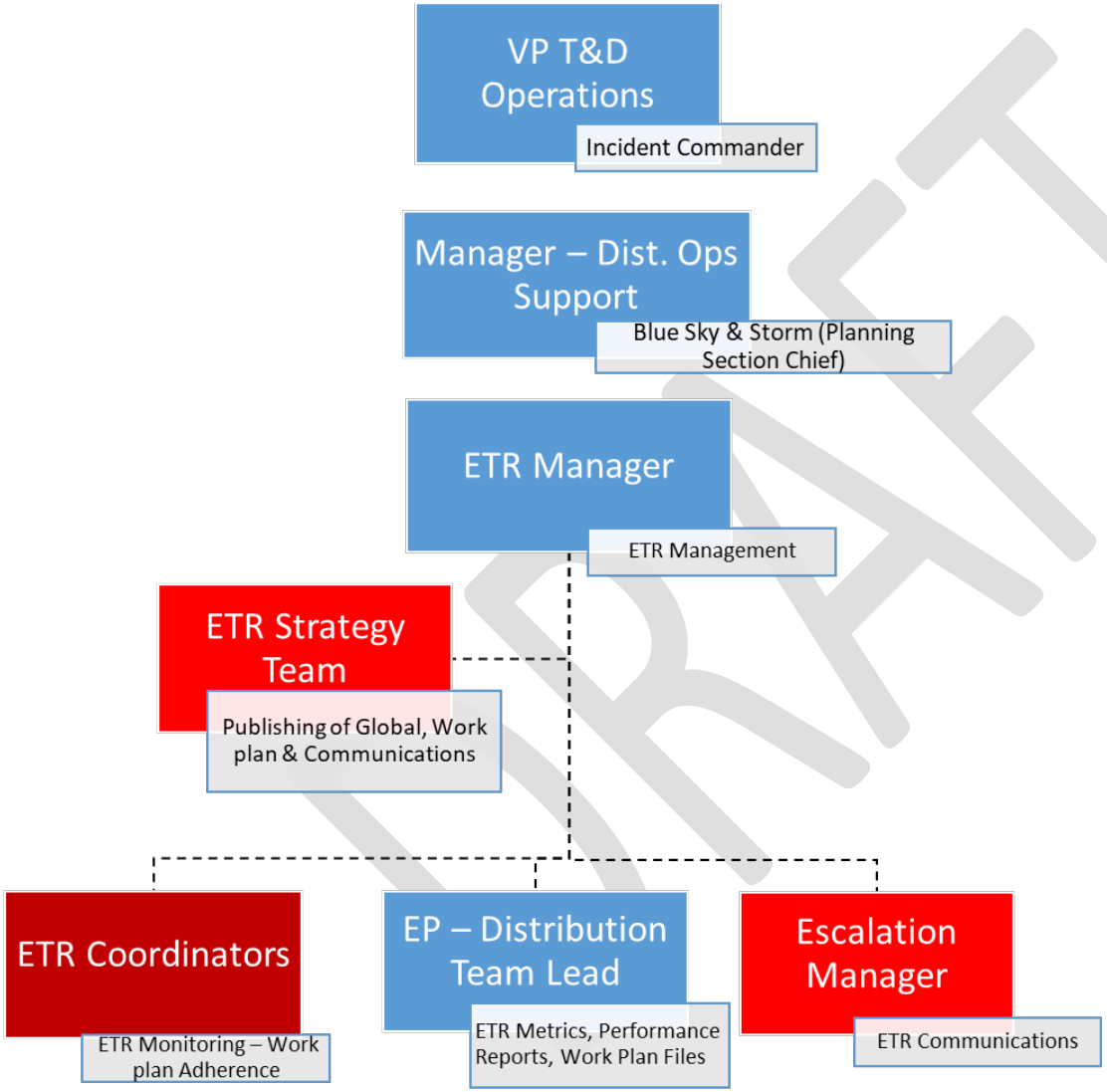
5. Project Artifacts

Project Artifacts	Artifact
Design Document	
Procedure Document – ETR Strategy - Operations	ERIP-OPS-006.pdf

Revision History

Name	Date	Reason for Changes	Version
D. Abayarathna	12/14/2020	Initial draft	1.0 draft 1
M. Davis	12/14/2020	Minor updates throughout	1.0 draft 2
S. Brienza	1/4/2021	Updates throughout	Draft 3
J. Goldsmith	1/11/2021	Formatting updates	Draft 4

Appendix I: PSEG Long Island Functional Organization



Appendix II: Storm Communications Approval Process

PSEG Long Island revisited the Corporate Communications materials review and approval process, outlined below, in order to incorporate lessons learned from Tropical Storm Isaias.