LIPA-PSEG Long Island 5-Year Strategic Roadmap (2023 to 2027)

March 29, 2023



STRATEGIC PLANNING PROCESS



Plan Development Activities included reviewing the Board's policies, identifying gaps and potential actions through consultation with LIPA and PSEG Long Island management and staff, peer utilities, and industry experts and prioritizing and sequencing initiatives considering the risks and benefits



THE PROCESS HAS INCORPORATED A RANGE OF INTERNAL AND EXTERNAL PERSPECTIVES

LIPA

Tom Falcone

Bobbi O'Connor

Carolyn Mackool

Donna Mongiardo

Mujib Lodhi

Gerry Ring

Vinay Daval

Billy Raley

Don Schaaf

Moin Shaikh

Pete Mladinich

Robert Kearns

James Palmer

Mehrdad Azizi

Sarah Mandli

Ricky de Aragon

John Little

Ken Kane

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PSEG Long Island

24. Ed Orellana

Dave Lyons

Margaret Keane

Greg Flipkowski

Michael Sullivan

Irwing Landesbaum

Diane Blankenhorn

Richard Henderson

Martin Campbell

Mark Sikorski

Adam Norgard

Amrit Singh

Anie Philip

Larry Torres

Frank Savin

Tom Welsh

Robert Rowe

Greg Player

Ed Gray

Brendan Beebe

Robert Bradley

Louis Debrino

Scott Jones

Pat Hession

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- 25. Balaji Ambriyath
- 26. Wayne Baldassari
- 27. Dan Wickstrom
- 28. Benjamin Rudolph
- 29. Anthony Vota
- 30. Meena Malhotra
- 31. Prem Patel
- 32. Richard Tinneli
- 33. Carmine Mileo
- 34. Mohammed Yousuf
- 35. John Savin
- 36. James McNamara
- 37. John Oates
- 38. John McCumiskey
- 39. Pat Dempsey
- 40. Jorge Jiminez
- 41. John Keating
- 42. Kim Soreil
- 43. Christina Nathan
- 44. Phil Deccico
- 45. Bob Argiro

46.

47. Joe Lamotta

Jeff Sills

- 48. Tony Anton
- 49. James Myers
- 50. Nayan Parikh
- 51. John Ng
- 52. Steve Pussateri
- 53. Demetrio Thanasoulis
- 54. John Kupcinski
- 55. Markus Ramlall

Consultants & Industry Experts

- 1. Albair Hanna (tieBridge)
- 2. Michael Sullivan (PA Consultants)
- 3. Wei DU (PA Consultants)
- 4. Tim Fields (ISG)
- 5. Jeremy Laundergan (Ennernex)
- 6. Ben Rankin (Ennernex)
- 7. Eric Douglas (Leading Resources)
- 8. Karin Bloomer (Leading Resources)
- 9. John Shaefer (ISG)

Other Utilities

- 1. SMUD / Large Public Power Council (John DiStasio)
- 2. Florida Power and Light (Ron Critteli)
- 3. Orlando Utilities (Jan Aspuru)
- 4. Salt River Project (James Pratt)
- 5. Duke Power (Carol Edelman)
- 6. JEA (Ricky Erixton, Gabor Acs)



KEY INITIATIVES – TRANSMISSION & DISTRIBUTION

	Business Benefits	Business Benefits Customer Benefits					
Enterprise Asset Management System (EAMS)	 Improve work management Track all LIPA assets Improve asset utilization Support long-term capital planning Optimize asset maintenance strategy Improve inventory management practices 	Better reliabilityCost savings	 Phase I System Design in 2023 Implementation in 2024 Phase II (Asset Investment Planning) System Planning 2024 Implementation 2025 				
Advanced Distribution Management System (ADMS)	 Provides next-generation system visibility and control capabilities (e.g., Volt-Var; fault location, isolation, and service restoration (FLISR); switch management) Reduces distribution system losses 	Improves system performanceImproves outage restoration	 Phase I Planning in 2023 Implementation 2024-2025 Phase II Planning 2025 Implementation 2026-2027 				
Transmission Control Center Upgrade	 Modernize aging primary and alternate transmission control center Expand system capabilities Mitigate emerging cyber security threats 	 Improves system security and resilience 	 Planning 2023 Facility construction 2024-2025 Relocate existing PTCC to new facility in 2025 				
Physical Security and Protection Program	 Improves physical security, including people, processes, tools, and technology utilizing industry best practices Strengthens administrative and technical controls Improves compliance with regulatory agency requirements for control centers, substations, and operation centers 	 Improves system security and resilience 	 Comprehensive vulnerability assessment in 2023 Physical protection program design and implementation 2023-2025 				



KEY INITIATIVES – CUSTOMER EXPERIENCE

	Business Benefits	Customer Benefits	Timeline
Customer Information System Modernization (CIS)	 Modernize a 1970's era customer systems architecture Better revenue and financial controls Add service features/rate changes faster and at lower cost 	 Brings multiple capabilities for better serving customers (e.g. customer data visibility, personalization of offerings, efficient change to service) 	 Planning 2023-2024 Implementation 2025-2026 Go live with new CIS platform 2026
Customer Contact Center Modernization (CCaaS)	 Replaces disparate on-premises systems with a fully integrated cloud-based contact center solution Expands call handling capacity Provides a new analytics engine to gauge customer sentiment Improves IVR containment Reduce overall costs 	 Allows customers to seamlessly transition between channels Enables 24/7 customer self-service 	 Go live with full functionality in 2023 Ongoing system enhancements 2024-2026
Time-of-Day (TOD) Rollout	 Reduces peak energy demand, emissions and system investment needs Facilitates integration of distributed energy resources 	 Allows customers to reduce energy costs by shifting consumption to cheaper off-peak hours 	 Marketing, outreach, and development of IT and customer tools in 2023 Residential customers transition to TOD rates in 2024 Modernize commercial rates in 2025



KEY INITIATIVES – FINANCE

	Business Benefits	Customer Benefits	Timeline
Financial Deleveraging	 Leads directly to credit rating upgrades and lower borrowing costs 	 Delivers substantial savings for customers (over \$600M in savings since 2015) 	 Long-term target of 70 percent debt-to-assets ratio by 2030 Potential for a fifth credit rating upgrade in 2024 or 2025
Business Process Optimization	 Establishes a dedicated team and systematic approach for identifying business process improvements and savings opportunities in collaboration with operational teams Tracks progress on cost reduction and process improvement initiatives over time Builds realized cost savings into steady-state operating budgets 	 Drives cost efficient operations and customer savings 	 Establish a Business Process Optimization practice in LIPA in 2023 and complete up to three business process reviews
Budget System Modernization	 Streamlines existing processes Introduces new functionalities, including scenario development, automated reporting, and near real-time visibility into cost variances 	 Provides better data and information for budgetary decision making, leading to better stewardship of customer resources 	 Currently under implementation, to be completed in 2023



KEY INITIATIVES – INFORMATION TECHNOLOGY (IT)

	Business Benefits	Customer Benefits	Timeline
IT Systems Separation	 Focuses the development and management of IT systems on LIPA's specific business needs Strengthens accountability for Long Island systems performance Increases flexibility for potential management transitions 	 Systems functionality tailored to LIPA customer needs Potential to reduce long-term costs borne by customers 	Already in progressCompletion by year-end 2024
IT Organizational Maturity	 Evaluates organizational maturity against industry standard benchmarks Applies industry best practices and processes 	 Improves system reliability and resilience 	 Implementation of Capability Maturity Model Integration (CMMI) Level 3 processes in 2023 CMMI process benchmark appraisal in 2024 Information Technology Infrastructure Library (ITIL) maturity model assessment in 2024
Long-Term IT Systems Planning	 Anticipates future business needs Ensures that investments in IT modernization are pursued strategically and coherently Addresses core technology vendor partners and long- term IT architecture and systems integration issues 	 Systems that anticipate and meet changing customer needs Better value for money from long-term investments of customer resources 	 Data center and cloud strategy in 2024 Enterprise-wide data warehousing and analytics strategy in 2024 Mobile framework, standards, and guidelines in 2024 Long-term systems replacement and technology modernization strategy in 2025



KEY INITIATIVES – PERFORMANCE MANAGEMENT

	Business Benefits	Customer Benefits	Timeline
Implementation of OSA- required Performance Management Mechanisms	• Equips LIPA staff to effectively lead key performance management processes, including independent validation and verification of critical IT systems, use of compensation-linked performance metrics, and LIPA's input to PSEG Long Island's manager performance evaluation	 Improved incentives and accountability for utility management performance 	 Development of guiding frameworks, training, and tools in 2023
Quality Standards	 Sets clear performance expectations for PSEG Long Island for key work products and project management performance 	 Improved quality and cost efficiency of utility operations 	 Quality standards for 5 key work products (e.g., project plans, budget proposals) and project management performance to be developed in 2023 Standards for additional work products and processes to be progressively added in subsequent years
Integrate lessons learned on performance management into the contractual framework of the next OSA	 Ensures that the next OSA reflects LIPA's accumulated knowledge and experience on performance management 	 Improved long-term performance of LIPA management service providers 	 Take stock of lessons learned in 2023 Integration into vendor selection process and OSA contractual framework in 2024



FOR CONSIDERATION March 29, 2023

TO:	The Board of Trustees
101	

FROM: Thomas Falcone

SUBJECT: Consideration of Approval of the 5-Year Strategic Roadmap

Requested Action

The Board of Trustees (the "Board") of the Long Island Power Authority (the "LIPA") is requested to adopt a resolution approving the Authority's 5-Year Strategic Roadmap (the "Roadmap").

Background

The Board supervises, regulates, and sets policy for LIPA, and provides strategic direction through a set of <u>governance policies</u>. The Board's policies define LIPA's purpose and vision and set expectations for the strategic outcomes that LIPA will deliver in the areas of reliability, customer experience, information technology, clean energy, affordability, and fiscal sustainability, among other areas. The Board reviews each of its policies annually, and LIPA Staff reports on outcomes in reports to the Board for each policy.

In adherence with the Board's policy on Strategic Planning and Performance Management, the Roadmap identifies end states and gaps to current capabilities and prioritizes those gaps to meet the expectations of the Board for service to our customers, as defined in the Board's governance policies. The Roadmap is then translated by management into annual Work Plans, PSEG Long Island Performance Metrics, and Budgets for review and approval by the Board.

The Board was briefed by LIPA Staff on the Roadmap at the February 2023 Board meeting. The Roadmap, provided as <u>Exhibit "B"</u>, focuses on five foundational business areas – Transmission and Distribution; Customer Experience; Finance; Information Technology; and Performance Management – and draws upon internal and external perspectives to establish a guiding, long-term strategic vision for the utility. Additionally, during 2023, LIPA will complete an Integrated Resources Plan to establish the pathway to a carbon-free electric grid by 2040 and will evaluate opportunities and complete roadmaps for certain business service areas, such as human resources, legal, communications, procurement, external affairs, and other support functions.

The Roadmap will serve as a valuable guide but will not be a static document. LIPA Staff will revisit the plan annually to ensure that our priorities continue to reflect the Board's policies, as they may be amended from time to time, as well as evolving customer needs, industry best practices, and changes to LIPA's operating environment.

Recommendation

Based upon the foregoing, I recommend approval of the above-requested action by the adoption of a resolution in the form attached hereto.

Attachments

Exhibit "A"ResolutionExhibit "B"5-Year Strategic Roadmap

RESOLUTION APPROVING THE 5-YEAR STRATEGIC ROADMAP

WHEREAS, the Board of Trustees (the "Board") provides strategic direction through a set of governance policies that define LIPA's purpose and vision and set expectations for the strategic outcomes that LIPA will deliver in the areas of reliability, customer experience, information technology, clean energy, affordability, and fiscal sustainability; and

WHEREAS, long-term strategic planning is foundational to meeting the objectives set by the Board and managing the pace of change in the electric utility industry; and

WHEREAS, the 5-Year Strategic Roadmap (the "Roadmap") provided as <u>Exhibit "B"</u> in the accompanying memorandum, positions LIPA to better deliver on its core commitment to a customer-first utility for Long Island and the Rockaways *and* to respond to emerging opportunities and challenges; and

WHEREAS, the Roadmap set priorities for limited time and resources over the next five years (2023-2027) and sequences initiatives and activities for LIPA and PSEG Long Island to collaboratively address current challenges, leverage advancing technology, and respond to evolving customer needs; and

WHEREAS, the Roadmap focuses on five foundational business areas – Transmission and Distribution; Customer Experience; Finance; Information Technology; and Performance Management – and draws upon internal and external perspectives to establish a guiding, long-term strategic vision for the utility.

WHEREAS, the Board has reviewed the Roadmap provided as <u>**Exhibit "B"**</u> in the accompanying memorandum and agrees that its content is due and proper to provide for LIPA's long-term strategic plan to meet the Board's objectives and to manage the pace of change in the electric utility industry.

NOW, THEREFORE, BE IT RESOLVED, the Board of Trustees hereby approves the Roadmap as set forth in **Exhibit "B**" to the accompanying memorandum; and

BE IT FURTHER RESOLVED, LIPA Staff is directed to revisit the Roadmap annually to ensure that LIPA priorities continue to reflect the Board's governance policies, as they may be amended from time to time, as well as evolving customer needs and industry best practices, and changes to LIPA's operating environment.

Dated: March 29, 2023





Learn More: lipower.org





Last Revised: March 2023



YEAR STRATEGIC ROADMAP 2023-2027

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Transmission & Distribution 5-year Roadmap Customer Experience 5-year Roadmap Finance 5-year Roadmap Information Technology 5-year Roadmap Performance Management 5-year Roadmap

ABOUT LIPA

The Long Island Power Authority (LIPA) is the third-largest public power utility in the United States, serving 1.2 million customers on Long Island and the Rockaway Peninsula in Queens.

LIPA's purpose is to serve our customers and community by providing clean, reliable, and affordable energy to Long Island and the Rockaways. As a not-for-profit utility, LIPA is a value-driven organization that puts our customers first in every action and decision.

LIPA is the owner of the electrical transmission and distribution (T&D) system serving our community; however, we contract for most of the management services and power supply used to operate our electric grid. Since 2014, LIPA has contracted with PSEG Long Island for management services, and LIPA provides service to customers under the PSEG Long Island brand name.

The LIPA Board of Trustees contracts with vendors; sets policy, strategy, and performance metrics for PSEG Long Island's service to our customers; finances the infrastructure investments necessary for a reliable electric grid; and leads Long Island's transition to a clean energy future.



Governance Model

LIPA is governed by a local **Board of Trustees** consisting of customers. The Board supervises, regulates, and sets policy for LIPA. The Board consists of nine Trustees, five of whom are appointed by the Governor, two by the Temporary President of the State Senate, and two by the Speaker of the State Assembly.

The Trustees serve for staggered four-year terms. All Trustees reside on Long Island or in the Rockaways and have relevant utility, corporate board, or financial experience. Trustees are not compensated for their service.

Board Policies Establish LIPA's Strategic Direction

The LIPA Board of Trustees provides strategic direction to LIPA's management through a set of governance policies. The Board's policies define LIPA's purpose and vision and set expectations for the strategic outcomes that management will deliver in the areas of reliability, customer experience, information technology, clean energy, affordability, and fiscal sustainability. The Board reviews each of its policies annually, and LIPA management reports regularly to the Board on outcomes for each policy. Figure 1 summarizes the key objectives set by the Board.

For more information about the Board's policies, visit lipower.org/purpose.

Figure 1: LIPA's Key Policy Objectives

Reliability and Resiliency

- Top 10% reliability among peer utilities
- Improve circuit conditions that cause repeated customer outages
- Invest in system resiliency to reduce outages and restoration times from severe weather
- Independently verify and validate PSEG Long Island's
 emergency restoration planning

Customer Experience

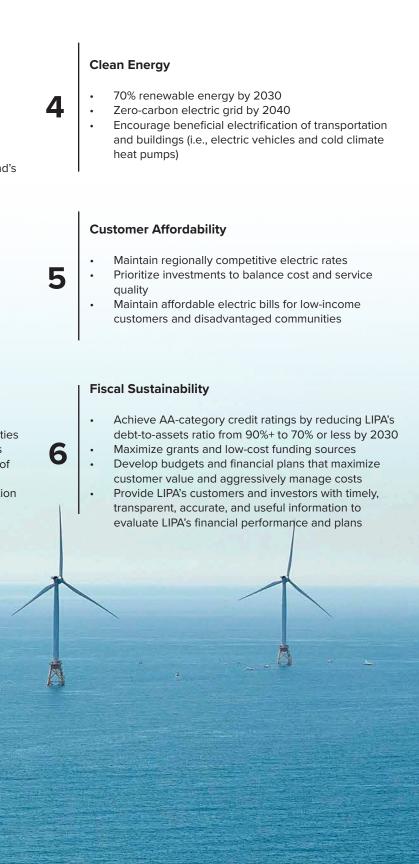
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- Deliver top 25% customer satisfaction in J.D. Power studies
- Continual improvement in ease of customer interaction, as measured by customer surveys
- Invest in technology to enhance the convenience of billing, payments, appointments, emergency restorations, etc.

Information Technology and Cybersecurity

- Deploy modern grid management technology and data analytics benchmarked to the top 25% of utilities
- Protect digital infrastructure and customer data, as measured by an annual independent assessment of cybersecurity practices
- Clearly communicate customer information collection policies



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EXECUTIVE SUMMARY

LIPA measures our performance relative to the strategic outcomes established in **policy** by our Board of Trustees. The Board's policy expectations encompass all the core operational areas of an electric utility, including:

- A highly reliable and resilient electric grid among the top 10 percent of peer electric utilities;
- An aggressive clean energy transition to a carbon-free electric grid by 2040, while supporting customers' transition to more efficient forms of transportation and heating, such as electric vehicles and heat pumps;
- An outstanding customer experience among the top 25 percent of electric utilities; and
- Electric service at the lowest possible cost, through efficient operations and plans that maximize customer value.

BACKGROUND

Long term strategic planning is foundational to meeting the objectives set by the LIPA Board and managing the pace of change in the electric utility industry. Transitioning to a carbon-free electric grid, for example, requires adding new clean energy sources, retiring older fossil-fueled power plants, building transmission to integrate changing power flows, encouraging shifts in customer behavior, and deploying in scale many new and emerging technologies.

On Long Island and elsewhere, extreme weather events and emerging cyber and physical security risks are necessitating new solutions for system resiliency. Customer expectations are evolving. Shaped by their experiences in other industries, customers increasingly demand a personalized and digitally driven experience, with customized offerings and easy, real-time communication. These trends are occurring during a period of economic uncertainty. Rate affordability and stability goals are challenged by broad-based inflation and the costs to modernize the grid and prepare for electrification of transport, heating, and industry.

At the same time, traditional aspects of utility operations remain critically important. Even within a more dynamic business environment, core tenets of our commitment to customers remain steadfast. This means getting the basics right by managing costs, maintaining the electric grid, responding guickly to storms and other emergencies, and efficiently resolving customer concerns. But even here, industry dynamics play an important role. Advancing tools and technologies can help LIPA manage these longstanding operational priorities more effectively and cost efficiently – basics done better.

This strategic plan (the 'plan' or 'roadmap') positions LIPA to better deliver on its core commitment to a customer-first utility for Long Island and the Rockaways and to respond to emerging opportunities and challenges. The plan sets priorities for limited time and resources over the next five years (2023-2027) and provides an opportunity for LIPA and PSEG Long Island to collaboratively look at the landscape in which the utility operates to address current challenges, leverage advancing technology, and respond to evolving customer needs. The plan focuses on five foundational business areas – Transmission and Distribution (T&D); Customer Experience (CX); Finance; Information Technology (IT); and Performance Management – and draws upon internal and external perspectives to establish a guiding, long-term strategic vision for the utility. Additionally, during 2023, LIPA will complete an Integrated Resources Plan to establish the pathway to a carbon-free electric grid by 2040 and will evaluate opportunities and complete plans for certain business service areas, such as human resources, legal, communications, procurement, external affairs, and other support functions.

FOCUS AREAS

LIPA Board's vision for our customers in Long Island and the Rockaways.

Our focus will be on improving the product we deliver to our customers. We will leverage customer feedback and operational data to design intuitive and efficient customer interactions and enhance transaction performance. Priorities include streamlined billing and payment processes and convenient self-service options. Customers will receive timely and accurate communications about outages and offerings will be customized to individual customer needs and preferences. Upgrades to core customer information and contact center systems will drive these performance enhancements.

We will further strengthen system reliability and resilience. LIPA has invested a record \$5.7 billion in infrastructure since 2016, leading to significantly improved system performance. Customers experiencing power outages have fallen 37 percent, and the utility ranks among the top 10 percent nationally in reliability. LIPA will further enhance the T&D system by applying modern system design and innovative technology, and, importantly, by ensuring LIPA's T&D assets are consistently well managed and maintained. New smart grid technologies and grid analytics, enhanced vegetation management practices, and a stronger emphasis on emergency response preparedness are among the planned improvements to grid reliability and resiliency. LIPA will deliver these improvements while maintaining industry-leading performance in worker safety.

We will advance Long Island's transition to a clean energy future. Our customers are adopting clean technologies like rooftop solar, heat pumps, home energy storage, and electric vehicles. Electrification and Distributed Energy Resource (DER) integration creates a unique opportunity for progress on clean energy goals and heightens the need for customer programs, tools, and pricing strategies to manage increasing demands on the electrical system. LIPA will invest in systems and grid modernization to accommodate the growing number of distributed energy resources and electrification of heating and transportation.

We will enhance customer affordability and ensure fiscal sustainability. To maintain stable and regionally competitive rates, LIPA will not only rigorously optimize business costs but will also ensure that planned projects deliver real value for customers. A new Time-of-Day (TOD) rate, developed with extensive stakeholder input, will help customers save money by giving them the flexibility to shift their power consumption to times when energy is cheaper. LIPA is especially committed to affordability for our most vulnerable customers and will increase program participation and bill discounts for low- to moderate-income customers. LIPA will also continue its ongoing efforts to bring financial leverage in line with industry norms and lower the utility's cost of capital.

We will only meet our goals if planning is matched by effective execution. LIPA is the owner of the electrical system serving our community; however, we contract with PSEG Long Island for most of the management services used to operate the electric grid. This requires a strong and disciplined emphasis on the performance of our vendors in delivering the Board's objectives. Consistent with the reformed PSEG Long Island contract adopted in April 2022, LIPA will strengthen its capabilities for effective oversight. In addition to performance management, project management will also be a core focus over the next five years. Many of our strategic priorities involve deployment of advanced technology. We will strengthen skills and processes to plan, develop, and manage complex project implementations within IT and other functional areas.

This five-year strategy will serve as a valuable guide now and for the future, but it cannot be a static document in a dynamic business context. We will revisit and refresh the plan annually to ensure that our priorities continue to reflect evolving customer needs and industry best practices, and changes to LIPA's operating environment and the Board's priorities.

Over the next five years, LIPA and PSEG Long Island will implement projects and initiatives that deliver on the

OBJECTIVES AND METHODOLOGY

OBJECTIVES

This plan has five key objectives:

Prioritization. In an environment of dynamism and constrained resources, we must pinpoint our efforts based on what produces the most value for customers. This means having clear decision criteria and being selective not only in terms of where we invest financial resources, but also where we focus management attention. The sections below focus on initiatives that will most move the needle on utility performance and customer experience.

Strategic Alignment. In addition to ensuring alignment with LIPA Board directives, this plan provides a shared strategic agenda to guide LIPA and PSEG Long Island's joint efforts, shaping how LIPA and PSEG Long Island will work together to set priorities, allocate resources, guide implementation, and monitor success.

Implementation Timing and Sequencing. The plan's ultimate value depends on its successful implementation. Given multiple priorities, implementation timelines must anticipate interdependencies among initiatives and accommodate organizational bandwidth and capacity constraints. This document lays out a sequenced approach over the next five years that balances the implementation demands of individual projects within the context of the broader portfolio of planned initiatives.

Resourcing. The plan provides high-level estimates of the financial resources required to deliver key initiatives. These estimates are indicative to inform long-term capital and budget planning, and do not replace more detailed costing analyses that will be developed at the project level and reflected in annual budgets.

Risk Mitigation. Risk mitigation planning can anticipate and limit the impact of potential threats to successful implementation. This document identifies several categories of risk and defines steps LIPA will take to prevent or mitigate adverse impacts on plan priorities.

SCOPE

This plan focuses on five critical business pillars: Transmission and Distribution (T&D); Customer Experience; Finance; Information Technology; and Performance Management. T&D, Customer Operations, and Finance are foundational business functions for an electric utility, providing a resilient and reliable power grid, efficient and effective customer transactions and services, and the financial resource management to ensure affordable rates and fiscal sustainability. IT partners with T&D, customer, finance, and other functional areas to deliver the robust and secure systems functionality necessary in a modern utility. Performance Management is also essential to meeting Board objectives. LIPA's business model relies heavily on PSEG Long Island to manage day-to-day utility operations. The success of this business model requires established standards and metrics to ensure consistent vendor performance across multiple business domains and a culture of continuous improvement.

Supply (covering IRP implementation, energy efficiency, beneficial electrification, and other topics).

This five-year plan will inform and be complemented by annual budget and project-level planning efforts. The goal of this effort is to articulate a long-term plan that provides a utility-wide view of priority initiatives and coordinated timing. The five-year plan will inform, but is not a substitute for, the more granular project planning tools and mechanisms already in place. The five-year plan will be translated into annual work plans, performance metrics, and budgets for the Board's review and approval. The annual work plan defines the activities to be undertaken during the year, while the performance metrics define the objectives that determine PSEG Long Island's variable compensation for the year. Budgeting and capital project review processes will ensure that tradeoffs of cost and business benefits are weighed at the project level, yielding right-sized solutions that meet customer needs and demonstrate stewardship of customer resources. These project-level processes could result in changes to the scope of individual projects and LIPA's overall project portfolio. LIPA will play a key oversight role in each of these processes.

METHODOLOGY

The priorities and initiatives that follow are drawn from extensive internal and external consultations. A small team of technology and business strategy consultants from tieBridge Inc. and GivingWorks Inc. advised and supported this effort, conducting consultations with 90 individuals, including LIPA and PSEG Long Island management and staff, external industry experts, and representatives of other industry-leading utilities. The mix of internal and external perspectives provides broad awareness of key industry trends and emerging best practices while ensuring that they are evaluated based on the specific nature and needs of the Long Island context, and that new opportunities complement and build upon LIPA and PSEG Long Island's already planned initiatives.



LIPA's Integrated Resource Plan (IRP) and future planning initiatives will address other important aspects of the business. LIPA and PSEG Long Island launched an IRP in June 2021 to study supply- and demand-side resources for electric power for Long Island and the Rockaways. The IRP will ultimately result in an action plan that will identify the key activities and investments that LIPA will need to make over the next eight years, including planning for the expiration of major power purchase contracts and retiring fossil-fueled generation, integrating substantial amounts of renewable energy, and identifying the impacts of and supporting beneficial electrification. IRP preliminary results will be available in the second quarter of 2023 and opportunities for public comment will follow. Also in 2023, LIPA and PSEG Long Island will develop five-year strategic roadmaps for Business Services covering Human Resources, Legal, Communications, Procurement, External Affairs, and Clean Energy and Power

STRATEGIC PRIORITIES

Figure 2 summarizes the overarching strategic goals for the planning period within T&D, Customer Experience, Finance, IT, and Performance Management. The sections below provide further context on priorities for each of the focal business areas, and the appendix to this document provides detailed implementation roadmaps for each business area, laying out the key initiatives and sequence of activities for the next five years.

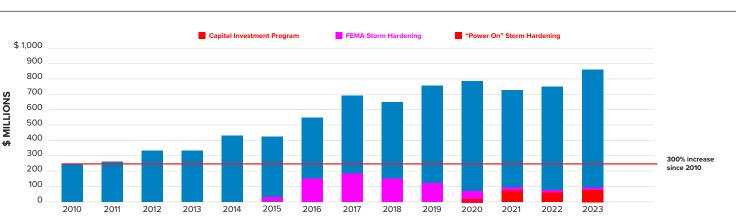
Figure 2: Summary of Strategic Goals for 2023 - 2027

Transmission & Distribution	Customer Experience	Finance	Information Technology	Performance Management
Adopt a programmatic approach to asset management	Use customer and operational data to enhance customer transactions	 Decrease LIPA's financial leverage and cost of capital 	 Ensure that system implementations deliver business benefits on time and on 	Ensure that performance management mechanisms in
Apply modern system design and innovative technology	 Optimize customer channel experience and self-service 	 Advance a "value for money" culture by strengthening budgets, financial plans, and 	 budget Establish dedicated IT systems and support 	the 2nd A&R OSA are successfully implemented (IV&V, metrics. service
Facilitate interconnection of renewable and	 • Modernize core 	 financial reporting Enhance LIPA's 	organizations for Long Island	provider performance evaluations)
distributed resources Reduce outages caused	customer systemsImprove energy	financial management capabilities (treasury, insurance, financial	 Ensure technology platforms are robust and operationally 	Create a performance management culture across LIPA and PSEG
by storms and other emergencies	affordability through rate design and targeted programs	forecasting, etc.)	stableProtect IT systems and	Long IslandEnsure that future
Protect the LIPA grid from natural hazards and unauthorized	 Provide proactive and personalized 		data from unauthorized access and disruption	management arrangements reflect LIPA's accumulated
access and disruption Provide a safe	communications and customized offerings		 Strengthen long-term systems planning 	knowledge and experience on performance
environment for LIPA's dedicated workforce and the public	Strengthen customer operations capacity		Strengthen the capacity of the IT organization	managementPrepare for the
				potential transition of PSEG affiliate functions at the end of the current contract

Transmission & Distribution

Above anything else, customers want reliable electric service. LIPA has invested a record \$5.7 billion in infrastructure since 2016 – over three times the level of investment of a decade ago (Figure 3) – leading to significantly improved outcomes, including a 37% reduction in customers experiencing power outages. The utility now ranks in the top 10 percent nationally in reliability.

Figure 3: Capital Investments in the LIPA Electric Grid Are Up 300%



Over the next five years, we will continue to implement initiatives that improve electric grid reliability and resiliency. Strengthening the management of LIPA's T&D assets will be a central focus. A new comprehensive asset management program, consistent with industry standards and best practices, will identify the necessary skills and organizational capabilities and align people, processes, and technology to improve management of assets, data, and work practices. A new end-to-end Enterprise Asset Management Systems (Box 1) will provide information and analytics to optimize tradeoffs of cost, performance, and risk. These investments in asset management will deliver cost savings through enhanced operational and workforce efficiency and will also improve customer satisfaction and overall system performance.

Electric grid technology continues to advance, and LIPA will adopt modern system design and innovative technologies that deliver cost effective performance enhancements. We will implement a new Advanced Distribution Management System and modernize the Transmission Control Center to improve real-time visibility, situational awareness, and control of LIPA's distribution and transmission grids. We will also deploy advanced protection and control systems to address circuit conditions that cause repeated customer outages. A greater reliance on data from multiple sources will further improve operational efficiency, system reliability, and safety.



LIPA's customers are increasingly adopting distributed energy resources (DER) such as electric vehicles, rooftop solar, and energy storage. Over the next five years, we will facilitate the interconnection of renewable and distributed resources while ensuring reliable T&D system performance. This will entail scalable customer DER programs and interconnection rules, a modern Distributed Energy Resource Management System to provide greater visibility into all DERs on the LIPA grid, and enhanced DER forecasting and planning tools to optimize system hosting capacity.

Long Island and the Rockaways remain vulnerable to major storms, and we will redouble our efforts to reduce both the number and duration of outages caused by storms and other emergencies. Investments in hardening of transmission supply and distribution circuits will continue, optimized through the use of improved designs and methods. New tools and data sources are available for monitoring the risks posed by vegetation, and we will leverage these technologies to better target tree trimming and hazard tree removal efforts. We will also strengthen storm prediction and impact modeling practices to better anticipate, prepare for, and respond to storms.

Safety and security will remain top priorities over the next five years. We will develop advanced physical security and monitoring systems to protect the LIPA grid from natural hazards, unauthorized access and disruption, and other emerging security risks. We will also implement programs that further strengthen our industry-leading performance in employee and public safety.

Box 1: Key Transmission & Distribution Strategic Initiatives 2023 - 2027

Enterprise Asset Management System (EAMS) Implementation – EAMS modernization is a critically important initiative for the utility, supporting nearly all aspects of T&D operations. The new EAMS system will improve the tracking, utilization, and maintenance of all LIPA assets and enhance work management and inventory management practices. The system will also support long-term capital planning. EAMS design will be completed in 2023, with a phased implementation beginning in 2024.

Advanced Distribution Management System (ADMS) Implementation – Upgrading LIPA's Distribution Management System will provide next-generation system situational awareness, visibility and control capabilities, thereby improving system reliability and outage restoration and reducing distribution system losses. Planning will conclude in 2023, with the first phase of implementation beginning in 2024. Sequencing of individual ADMS modules will be carefully orchestrated to ensure functionality dependencies are well managed.

Transmission Control Center Upgrade – This initiative will modernize LIPA's aging Primary and Alternate Transmission Control Centers, expand system capabilities, and improve the resilience of key control center functions. The Control Center will be designed from the ground up to ensure regulatory compliance, accommodate rapid technological change, and mitigate emerging cybersecurity threats. Planning will extend through 2023, with facility construction to be completed by 2025.

Physical Security and Protection Program – In 2023, LIPA will conduct a Comprehensive Vulnerability Assessment of protection systems and operational security practices covering all threats and to all facilities. Assessment findings will inform the design of a multi-year protection program to deter, detect, deny, delay, and defend LIPA facilities (the 5 D's), with actions tailored for different facility types. The program will enhance the utility's physical security posture by leveraging advanced technologies and strengthening administrative and technical controls.

Customer Experience

The LIPA Board has set clear expectations for a customer-first electric utility for Long Island and the Rockaways, with a goal of top quartile performance in J.D. Power's utility residential and business customer satisfaction studies and on industry-standard customer service metrics. PSEG Long Island must make meaningful gains in customer satisfaction to achieve the Board's vision.

Our customers increasingly want flexible and instantaneous access to information and data about their energy, accessible through multiple channels. They also want payment and support options customized to their individual preferences, as well as the kind of intuitive self-service options they have become accustomed to in other industries. These trends challenge PSEG Long Island to transform a traditional, transaction-focused customer service model to one that cultivates relationships and dynamically responds to varied and changing customer needs.

A much stronger reliance on data and digital technology will be a critical part of this transition. We will combine emerging forms of customer feedback, including customer sentiment data, with operational and financial data to generate insights that enhance customer transactions, operational performance and enable personalized communications, and offerings. We will also expand customer self-service options and ensure that basic customer interactions such as billing and payments are intuitive, convenient, and efficient. The rollout of advanced meters have enabled additional customer experience enhancements, including uses of load disaggregation data for customer guidance and new product development.

Modernization of core customer systems will provide the technological infrastructure for many of these enhancements. A new customer information system and contact center platform (Box 2) will deliver multiple capabilities to better serve customers, including better customer data visibility, personalization of customer offerings, and self-service enablement. Through disciplined design and project management, LIPA will ensure that these long-lasting investments in customer service infrastructure deliver real value for customers now and in the future.

In a high-cost electricity market, affordability continues to be a priority for Long Island and Rockaways customers. In 2024, LIPA will become the first major utility in the State of New York to transition residential customers to Time-of-Day (TOD) rates. TOD rates will help customers save money by encouraging them to shift usage to parts of the day when demand is lower and energy is cheaper to produce. LIPA will also more rigorously manage business costs within customer operations and other functional areas (see finance strategy below) and expand low-to-moderate income program participation and benefits to disadvantaged communities.

Effective customer communications, particularly during emergency and outage situations, will be essential for rebuilding and sustaining customer trust after the experience of Tropical Storm Isaias in August 2020. During outage situations, customers will receive timely and accurate estimated times of restoration so that they can plan their lives. Emergency communications will be proactive, clear, and consistent across channels.

Achieving our vision for the next five years will require new organizational capabilities, encompassing people, processes, and systems. We will strengthen customer operations capacity within LIPA and PSEG Long Island and make sure the organizational structures and staff capabilities are in place to deliver exceptional customer service.

Box 2: Key Customer Experience Strategic Initiatives 2023 - 2027

Customer Information System (CIS) Modernization – LIPA's CIS, which manages customer billing and other customer information, was implemented in 1975. Over the years, the system has become more complex and intractable, requiring time-intensive, manual workarounds to meet changing bill formats, customer needs, and regulatory requirements. Over the next four years LIPA will modernize the CIS architecture, enabling multiple capabilities to better serve customers, including improved customer data visibility, better revenue and financial controls, personalization of customer offerings, and the ability to change service features and rates faster and at lower cost. Upgrading a complex, customer facing system like CIS carries significant risk. LIPA will dedicate a high degree of organizational attention and technical expertise to managing the multi-year implementation, with a target to 'go live' with the new CIS platform in 2026.

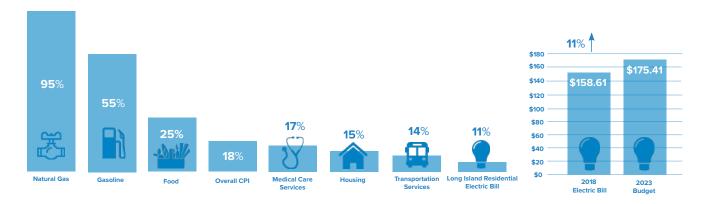
Customer Contact Center Modernization – The Contact Center as a Service (CCaaS) initiative will replace disparate onpremises systems with a fully integrated cloud-based contact center solution. These changes will enhance the customer experience by allowing customers to seamlessly transition between channels and to resolve issues 24/7 through self-service. The initiative will expand call handling capacity, provide a new analytics engine to gauge customer sentiment, and improve containment in the interactive voice response system. The single vendor platform will also reduce overall costs and support faster resolution of operational issues.

Time-of-Day Rate Rollout – LIPA will become the first major utility in the State of New York to transition residential customers to a standard, smart-meter-enabled Time-of-Day rate. TOD rates will allow customers to reduce their energy costs by shifting consumption to cheaper off-peak hours. The new rate design will also facilitate continued integration of distributed energy resources and reduce peak energy demand, thereby reducing both emissions and system investment needs. LIPA's TOD rates were developed with extensive stakeholder input and will help customers save money while supporting Long Island's clean energy future. LIPA will launch marketing, outreach, IT, and customer tools in 2023 to educate customers about savings opportunities. Residential customers will be transitioned to TOD rates beginning in 2024, with commercial rate modernization following in 2025.

Finance

LIPA aggressively manages costs to minimize the burden on customers, and these efforts have resulted in electric bills that have increased at less than the rate of inflation (Figure 4). In an era of volatile fuel prices, inflationary cost pressures, and significant investments to achieve ambitious carbon reduction goals, LIPA will need to intensify its focus on keeping customers' bills stable and affordable.

Figure 4: Rise in Costs of Goods and Services Since 2018



Data provided by the U.S. Bureau of Labor Statistics. For more information, visit www.bls.gov/cpi/

Over the next five years, LIPA will employ several strategies to ensure the lowest long-term cost to customers and to sustainably manage LIPA's financial assets. Ongoing efforts to decrease financial leverage and cost of capital will continue, with the long-term goal of reducing LIPA's debt-to-assets ratio from 92 percent currently to 70 percent or less by 2030. LIPA's debt management efforts have already delivered four credit rating upgrades and saved customers over \$600 million in borrowing costs. Further reductions in leverage ratios will support additional cost savings (Box 3).

LIPA will also maximize its use of federal storm hardening and storm restoration grants – made possible by LIPA's public ownership structure — to reduce costs to customers. Use of debt securitization and tax-exempt financing will reduce LIPA's cost of capital, and LIPA will also pursue opportunities to lower long-term real estate costs through direct ownership rather than leasing.

Delivering the lowest long-term cost to customers also means ensuring cost efficiency in operations. LIPA will advance a "value for money" culture by strengthening budgets, financial plans, and financial reporting to support aggressive cost management, drive sound business decisions, and maximize customer value. An important initiative will be the establishment of a Business Process Optimization practice within LIPA (Box 3). This team will systematically identify business process improvements and cost saving opportunities so the realized savings can be built into steady-state operating budgets.

We will also strengthen operational and financial reporting and monitoring tools and processes for capital project review and approval, while ensuring that LIPA and PSEG Long Island have the requisite financial analysis and fiscal management capabilities to serve as effective stewards of customer resources. Key financial management functions such as treasury and insurance management will be strengthened and modernized, and we will utilize new sources of data to improve financial forecasting and cost recovery mechanisms.

Box 3: Key Finance Strategic Initiatives 2023 - 2027

Financial Deleveraging – In 2013, LIPA had the lowest credit ratings and highest leverage of any large public power utility, largely stemming from the legacy of the Shoreham plant. In 2015, LIPA adopted a plan to reduce leverage over time and has since obtained four credit rating upgrades and saved customers over \$600 million. LIPA's deleveraging efforts will continue with the long-term target of a 70 percent debt-to-assets ratio by 2030, down from 230 percent at the time of the LIPA/Long Island Lighting Company (LILCO) merger in 1998. LIPA is also looking forward to a potential fifth credit rating upgrade in 2024 or 2025.

Business Process Optimization – Process optimization is a continuous effort to drive cost reduction while maximizing business value. LIPA will establish and staff a Business Process Optimization (BPO) unit to lead this process and deliver a systematic approach. The BPO unit will conduct targeted business process reviews, identify and prioritize savings opportunities in collaboration with operational teams, and track progress on cost reduction and process improvement initiatives over time.

Budget System Modernization – Upgrading LIPA's budgeting system will be a priority for the finance department in 2023. The new system will streamline existing processes, provide better data and information for budgetary decision making, and introduce new functionalities, including scenario development, automated reporting, and near real-time visibility into cost variances.

Information Technology

Many of the major business priorities described in the plan – improving asset management, facilitating DER integration, advancing smart grid maturity, and enhancing customer contact and customer information management, for example – rely heavily on intelligent and timely deployment of information and operational technology. In order to deliver the envisioned benefits to LIPA's customers, the planning and implementation of these initiatives need to be anchored in clearly defined business requirements. Functional experts in LIPA and PSEG Long Island will define the driving principles and requirements, and the IT function, working in collaboration with functional teams, will translate those requirements into systems capabilities and manage systems implementation. Thus, this plan is rooted in and guided by LIPA's critical business needs, with intelligent IT as a primary enabler for meeting these needs.

LIPA and PSEG Long Island will take several steps to ensure that the IT organization is equipped to deliver the requisite systems functionality on time and on budget. A dedicated IT management team for Long Island operations will be established, and industry standard organizational maturity assessments will help identify and prioritize opportunities to strengthen business processes. A revitalized IT governance structure will guide IT delivery across multiple enterprise goals, and a dedicated Project Management Office for Long Island will lead day-to-day implementation of large IT projects.

Building on the difficult lessons learned during Tropical Storm Isaias, PSEG Long Island will also take additional steps to make technology platforms more robust and operationally stable. Business continuity and disaster response plans will be developed for all critical systems and processes, and LIPA will independently verify emergency restoration plans and IT systems testing. Furthermore, all IT and OT assets will be kept current and under general support from the product vendor.

Several IT and OT systems serving Long Island operations are currently intermingled with PSEG's corporate systems. Under the terms of LIPA's April 2022 revised contract with PSEG Long Island, these systems and associated support organizations will be fully segregated and independently operable for Long Island by the end of 2024 (Box 4). This provides both long-term flexibility in LIPA's vendor relationships as well the ability for Long Island operations to adopt business processes and priorities separate from those of the rest of the PSEG enterprise based on our own needs, resources, and timelines.

Consistent with LIPA Board policy, we will also proactively protect IT systems and customer, employee, and thirdparty data from unauthorized access or disruption. A dedicated cybersecurity organization for Long Island will develop and manage a cybersecurity program and conduct regular vulnerability assessments and penetration testing of all information and operational technology systems. We will also clearly communicate how customer information is collected, used, and disclosed, and ensure that third-party users of customer information have robust information security practices.

As a field, information technology continues to evolve and push the possibility frontier, introducing new, valueadded use cases for the utility industry. LIPA and PSEG Long Island will stay abreast of these changes and develop long-term technology strategies that anticipate future business needs and ensure systems coherence.

Box 4: Key Information Technology Strategic Initiatives 2023 - 2027

IT Systems Separation – In the April 2022 contract between LIPA and PSEG Long Island, the parties agreed that it would be beneficial for all IT systems serving LIPA to be separate and distinct from the systems, data, reports, and information of PSEG Long Island and its affiliates. Maintaining separate systems will focus the development and management of IT systems on LIPA's specific customer and business needs and will strengthen accountability for Long Island systems performance. System separation also has the potential to reduce long-term costs borne by customers and increase flexibility should LIPA transition the provision of management services in the future. The scope of the separation effort includes the Enterprise Resource Planning (ERP) system, infrastructure, various application systems, and cyber-security support systems. As recommended by the New York Department of Public Service and adopted by the LIPA Board, IT systems separation will be completed by year-end 2024.

IT Organizational Maturity – Tropical Storm Isaias in August 2020 exposed critical deficiencies in PSEG Long Island's management of information technology systems. The new PSEG Long Island IT management put in place under the reformed contract has a strong commitment to building the capability of the IT organization by applying industry best practices and processes and evaluating organizational maturity against industry standard benchmarks.

Long-term IT Systems Planning – Over the next three years, LIPA and PSEG Long Island will develop long-term technology plans that anticipate future business needs and ensure that LIPA's investments in IT modernization are pursued strategically and coherently. Separate planning initiatives will address the organization's data center and cloud strategy, an enterprise-wide data warehousing and analytics strategy, and a comprehensive enterprise mobility strategy to increase the efficiency and productivity of field staff. A long-term systems replacement and technology modernization strategy will address core technology vendor partners and long-term IT architecture and systems integration issues.

Performance Management

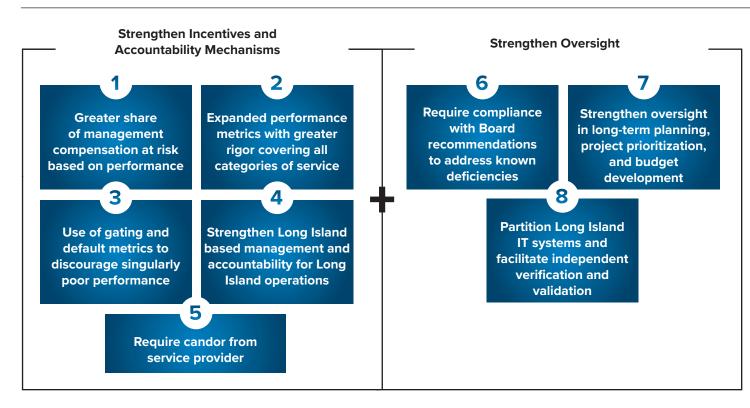
'Performance management' refers to management and oversight processes that support the achievement of business objectives. Because LIPA contracts with PSEG Long Island for most of the management services used to operate the electric grid, vendor performance management mechanisms are particularly important in delivering on the LIPA Board's vision for customers.

In April 2022, LIPA and PSEG Long Island began operating under a new, reformed contract. The contract reforms (see Figure 5) introduced new mechanisms to strengthen LIPA and DPS oversight, including expansion of compensation-linked performance metrics, LIPA's independent validation and verification (IV&V) of critical IT systems, and LIPA's input to PSEG Long Island's manager performance evaluation processes. To ensure that the contractually required mechanisms deliver the envisioned impact on performance, LIPA will equip its staff to lead these processes through provision of guiding frameworks, training, and tools.



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Figure 5: Key Elements of the New Contract with PSEG Long Island



LIPA will also work to create and sustain a utility-wide performance management culture. In practice, this will entail clear performance expectations and standards for PSEG Long Island – quality standards for key deliverables and performance standards for project management, for example – and further strengthening of LIPA's vendor management capabilities. LIPA will also play a more active role in scanning for and selectively integrating best practices of industry-leading utilities.

LIPA's current contract with PSEG Long Island is due to expire at the end of 2025. Over the next year, LIPA will synthesize lessons learned on performance management in order to ensure any future operating services agreement reflects LIPA's accumulated knowledge and experience with its distinctive contracted management model.

FINANCIAL RESOURCE REQUIREMENTS

Figure 6 provides capital expenditure estimates (in 2023 dollars) for major strategic initiatives, defined as initiatives expected to exceed \$5 million in capital investment over the 2023 to 2027 planning period. These highlevel estimates are preliminary and intended only as guidance to inform cost and value tradeoffs and resource prioritization. Many of the initiatives are still in the early planning stages; resource estimates will continue to be updated as the project scope is further defined. In some areas, formal assessments will be conducted over the next two years. Depending on the findings of these studies, additional major capital initiatives could be pursued. The estimates in Figure 6 do not represent a full costing, as operating cost impacts are not included.

LIPA's budgeting processes will identify full operating and capital cost implications – including cost savings from operating efficiency gains - at the level of individual initiatives, which will be submitted to the LIPA Board for review and approval.

Figure 6: Estimated Capital Expenditures for Major Strategic Initiatives

TRANSMISSION & DISTRIBUTION

Major Strategic Initiatives	2023	2024	2025	2026	2027	2023-2027 Total
Storm Hardening Program	83.0	75.0	75.0	75.0	75.0	\$383.0
Distribution Circuit Improvement Program (CIP)	15.3	16.8	17.6	18.5	19.4	\$87.8
Distribution Multiple Customer Outages (MCO)	8.3	8.1	8.5	8.9	9.4	\$43.2
Transmission Control Center Replacement	9.3	37.7	45.3	1.4	10.1	\$103.7
Enterprise Asset Management System (EAMS)	8.3	18.0	20.0	7.0	3.0	\$56.3
Physical Security & Protection Program	7.9	6.8	5.5	5.5	0.5	\$26.2
Advanced Distribution Management Systems (ADMS)	2.6	4.3	4.0	5.0	6.0	\$21.8
Distributed Energy Resource Management Systems (DERMS)	2.9	3.2	5.2	5.0		\$16.2
Vegetation Management System	-	1.0	4.0	1.0	1.0	\$7.0
T&D TOTAL	\$137.5	\$170.9	\$185.1	\$127.3	\$124.5	\$745.3

CUSTOMER EXPERIENCE

Major Strategic Initiatives
Customer Information System Modernization (CIS)
Time-of-Day Rate Rollout
Customer Contact Center Modernization
CUSTOMER EXPERIENCE TOTAL

FINANCE

Major Strategic Initiatives Enterprise Resource Planning System Replacement (ERP) Budget & Treasury Systems Modernization **FINANCE TOTAL**

INFORMATION TECHNOLOGY



Total Capital Expenditures for Major Strategic Initiatives

* Figures are in millions of dollars

2023	2024	2025	2026	2027	2023-2027 Total
2.0	5.0	25.0	40.0	10.0	\$82.0
4.8	0.8	0.5	-	_	\$6.1
5.9	-	-	-	-	\$5.9
\$12.7	\$5.8	\$25.5	\$40.0	\$10.0	\$94.0

2023	2024	2025	2026	2027	2023-2027 Total
-	-	2.0	10.0	20.0	\$32.0
2.0	1.0	1.0	1.0	-	\$5.0
\$2.0	\$1.0	\$3.0	\$11.0	\$20.0	\$37.0

2023	2024	2025	2026	2027	2023-2027 Total
14.2	7.9	6.4	5.7	0.7	\$34.8
12.0	8.0	1.2	-	-	\$21.2
3.8	3.8	3.8	1.0	1.8	\$14.2
3.2	8.0	2.0	-	-	\$13.2
-	3.0	2.0	1.0	1.0	\$7.0
2.2	1.0	1.0	0.5	0.5	\$5.2
\$35.4	\$31.7	\$16.4	\$8.2	\$4.0	\$95.6

\$187.6 \$209.3 \$230.0 \$186.5 \$158.5 \$971.8

RISKS AND MITIGATION

In order to meet the objectives articulated in this plan, LIPA and PSEG Long Island will need to proactively manage and mitigate several potential risks. The sections below describe key categories of risk to successful implementation as well as mitigating factors and strategies that LIPA and PSEG Long Island will employ.

ORGANIZATIONAL CAPACITY

Access to professional skills and expertise is essential to deliver planned initiatives over the next five years. LIPA and PSEG Long Island will need to equip staff with the necessary training and tools and selectively recruit skilled staff and external expertise to fill identified capability gaps. There will be a particular focus on strengthening capabilities in the following areas that are foundational to multiple plan priorities:

- Project and Vendor Management Capabilities Planned initiatives include several large and complex IT projects that carry technical design and systems integration risks, as well as risks that vendor-led implementation is not on time, on budget, and of sufficient guality. Failure to manage these risks would introduce reputational risks for the utility. LIPA will mitigate these risks through stronger IT governance and project management capacity. A Joint LIPA-PSEG Long Island System Planning Advisory Committee will provide oversight and guidance of large systems initiatives and a dedicated project management office for Long Island operations will oversee day-to-day implementation. LIPA and PSEG Long Island will also invest in advancing IT business processes and organizational maturity guided by industry standard assessment models.
- Subject-Matter Expertise Project management capabilities need to be married with technical and subject-matter expertise to effectively define business requirements and design key systems functionality. In addition to accessing industry-leading expertise externally, PSEG Long Island will need to coherently integrate relevant internal expertise from various functional domains on systems initiatives that impact multiple organizational priorities. LIPA will also need sufficient subject matter expertise and technical proficiency to manage vendor performance given its expanded role under the new contract.
- Data Analytics Capacity A much stronger reliance on data for business decision making is core to several initiatives across customer operations, T&D operations, and finance. Building the IT infrastructure for data access is only one piece of the puzzle. LIPA and PSEG Long Island need to also build staff capabilities for data analysis and embed new information sources into management and oversight processes. An enterprise-wide data warehousing and analytics strategy - to be developed in 2023 – will map business data sources and prioritize use cases, identify required tools and functionality, and assess data analytics skills gaps to support a truly data-driven utility.

ORGANIZATIONAL ALIGNMENT

For LIPA's highly contracted management model, it is critically important to ensure top-to-bottom alignment between LIPA Board objectives, organizational strategy, and PSEG Long Island's day-to-day operations. A 'one utility' culture and cooperative mindset between LIPA and PSEG Long Island will be vital to achieving such alignment. LIPA and PSEG Long Island will need to collaboratively build and sustain senior management commitment and ownership of the strategic plan. Planned initiatives to strengthen financial and operating reporting frameworks and to integrate them into management and oversight processes will play an important role in sustaining alignment and management attention.

Aligning incentives under the reformed contract structure will also be important. LIPA and DPS will need to ensure that annual metrics direct management attention to priority strategic objectives and offer compelling incentives for performance, with independent validation and verification as an assurance mechanism.

As the utility undertakes several large, multiyear initiatives, attention to change management will be necessary to ensure that significant investments in systems and technology are met with the organizational readiness to deliver the envisioned business benefits. This readiness includes staff-level understanding of current gaps and necessary shifts as well as the adaptation of business processes, tools, and training to create an enabling environment for effective implementation.

TECHNOLOGICAL CHANGE

Major information and operational technology initiatives – a key strategic thrust of this plan – represent significant upfront investments with benefits that are spread over long periods of time. Given the rapid pace of technological change, LIPA must take care to avoid long-term investments in platforms that quickly become obsolete. Systems design efforts should prioritize future flexibility to the extent possible, and long-term IT planning should not only anticipate changing future business needs but also gauge ongoing evolution and advancement of technological solutions.

MANAGEMENT CONTINUITY

LIPA's current contract with PSEG Long Island is due to expire on December 31, 2025, just over the midway point of this plan's time horizon (2023-2027). Furthermore, the 2022 New York State Budget enacted a Legislative Commission on the Future of LIPA to investigate and report to the State Legislature on a pathway to establish a public power model for the management and operations of LIPA. The Commission is expected to issue a final report by April 2023, following review and recommendations from the New York State Comptroller. If the Governor and State Legislature decide not to pursue a public power management model, LIPA's management contract will be re-bid starting in 2023 to allow sufficient time to review and select vendors and to potentially transition services to a new provider.

The potential risks associated with a possible reassignment of operations management – either to LIPA management or to a new vendor – are being proactively mitigated. IT systems migration is the most complex and longest lead time management transition task. As discussed above, LIPA's reformed contract with PSEG Long Island requires all IT systems to be fully migrated to Long Island ServCo management within the term of the current contract. LIPA and PSEG Long Island have agreed to an IT System Separation Plan – recommended by DPS and approved by the LIPA Board – and activities under this plan have already begun and are to be fully completed by the end of 2024, a year before contract termination. The strategic plan also includes pathways for the potential transition of other non-IT functions.



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APPENDIX: 5-YEAR FUNCTIONAL ROADMAPS

The following 5-year roadmaps map out the sequence of activities required between 2023 and 2027 to achieve defined strategic objectives within each of T&D, Customer Experience, IT, Finance, and Performance Management. These functional roadmaps were developed through close collaboration between LIPA and PSEG Long Island management and will be revisited annually to ensure that planned initiatives continually reflect the current business environment and emerging opportunities and industry best practices.



TRANSMISSION & DISTRIBUTION

GOAL HIGHLIGHTS

Adopt a programmatic approach to asset management based on industry best practices

a) Implement a new asset management program that is consistent with ISO-55001 standards and improves management of assets, data, and work practices b) Plan and implement an end-to-end Enterprise Asset Management System to improve operational and workforce efficiency, customer satisfaction, and overall system performance

Apply modern system design and innovative technology to improve overall system performance

a) Plan and implement an Advanced Distribution Management System (ADMS) to enhance real-time system visibility and situational awareness

b) Improve circuit conditions that cause repeated customer outages through advanced protection and control systems and devices

c) Leverage data, including smart meter, distribution system, and advanced sensor data, to improve operational efficiency, system reliability, and safety d) Modernize LIPA's transmission control center to improve real-time situational awareness and control of the transmission system

e) Transition LIPA's fleet to electric vehicles

f) Continually track and monitor technological innovations with the potential to enhance grid operations

Facilitate the interconnection of renewable and distributed resources while ensuring reliable T&D system performance

a) Enhance customer programs and interconnection rules to promote DER b) Deploy a modern Distributed Energy Resource Management System to provide greater visibility into all DERs on the LIPA grid

c) Strengthen DER forecasting and planning to optimize system hosting capacity

Reduce the number and duration of outages caused by storms and other emergencies

a) Optimize implementation of overhead and underground storm hardening through use of improved designs and methods

b) Utilize vegetation intelligence to enhance the effectiveness of vegetation management and storm hardening programs

c) Strengthen predictive storm impact modeling to better anticipate, prepare for, and respond to storms

Protect the LIPA grid from natural hazards and unauthorized access and disruption

a) Develop and implement advanced physical security and monitoring systems to mitigate current and emerging security risks

Provide a safe environment for LIPA's dedicated workforce and the public a) Eliminate fatalities and serious injuries to employees, contractors, and members of the public by addressing contributing operational factors

North Shore Rail Trail | Wading River, New York





5

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OBJECTIVES	2023	2024	20
1a. Implement a new Asset Management (AM) program that is consistent with ISO-55001 standards and improves management of assets, data, and work practices	 Develop and implement a Strategic Asset Management — Plan (SAMP) and 22 asset class specific Asset Management Plans (AMPs) Develop/refine AM performance management processes — AM organizational alignment — AM governance and change management plans and — processes Outside plant physical asset inventory and inspections — Capital investment planning and asset risk management — processes 		
1b. Plan and implement an end-to-end Enterprise Asset Management System (EAMS) to improve operational and workforce efficiency, customer satisfaction, and overall system performance	 EAMS Phase I Implementation — Define core EAMS business requirements 	 EAMS Phase II Implementation Define business requirements for EAMS Phase III – Capital Investment Planning and Risk Analysis 	EAMS Ph Implement

Apply modern system design and innovative technology to improve overall system performance

2a. Plan and implement an Advanced Distribution Management System (ADMS) to enhance real-time system visibility and situational awareness

ADMS Phase I planning

- ADMS Phase I implementation ——
- OMS to DMS integration decision
- Assess need for meter and gateway router upgrades based on plan for DER programs
- » Volt/ » FLIS
- Define A •

→ •

- business Assess i • field dev ADMS OMS re-•
- decision

2025	2026	2027
		P
EAMS Phase III Implementation		
ADMS Phase I completion (timing dependent on automatic sectionalizing deployment)	 ADMS Phase II —> implementation 	 ADMS Phase II completion Enable new switch management, system visibility, and distribution state estimation capabilities
ADMS OMS re-platforming decision	 Deploy additional — ADMS field devices if required 	

OBJECTIVES	2023	2024	20
2b. Improve circuit conditions that cause repeated customer outages through advanced protection and control systems and devices	Deploy and configure reclosers and smart fuses forautomatic sectionalizing	 Develop an overarching T&D architecture and system protection vision and operating philosophy to inform system design Upgrade remaining 4kV lines 	
2c. Leverage data including smart meter, distribution system, and advanced sensor data, to improve operational efficiency, system reliability,	 Define T&D data needs and use cases as part of enterprise- wide Data Warehousing and Analytics Strategy (see IT roadmap) 	 Implement T&D data analytics enhancements (e.g. ETR accuracy, storm hardening performance, storm restoration optimization) 	
2d. Modernize LIPA's transmission control center to improve real-time situational awareness and control of the transmission system	Complete selection of technology, physical design, and permitting process for the transmission control center	 Begin construction of transmission control center Evaluate future need for Dynamic Line Ratings as part of coordinated policy and planning processes 	Complete co relocate exis facility
2e. Transition LIPA's fleet to electric vehicles	Continued electrification of light-duty vehicles		 Develop and a long-term full fleet elec including an technology charging infi facilities imp
2f. Continually track and monitor technological innovations with the potential to enhance grid operations	 Define areas of opportunity, project scope, and participation for a potential LIPA-PSEG Long Island working group on technological innovation 	 Implement a technology innovation working group 	
S Facilitate the interconnection of renewab system performance	le and distributed resources while ensuring reliable T&D		
3a. Enhance customer programs and interconnection rules to promote DER	 DER needs and market assessment DER program planning 	 DER program measurement and assessment Automate processes for intake of new — interconnection requests 	Assess alter for DER ma

2025	2026	2027
	→	>
e construction and existing PTCC to new		
and implement – rm strategy for electrification, analysis of gy maturity, and infrastructure and implications		
alternative models market integration	DER program implementation	
		20

OBJECTIVES	2023	2024	20
3b. Deploy a modern Distributed Energy Resource Management System (DERMS) to provide greater visibility into all DERs on the LIPA grid	 Complete DERMS Phase I: SCADA DER Visibility Determine potential need and scope for	 DERMS Phase II Implementation (if necessary) Assess Distribution Control Centers for - DER readiness 	→ • Upgrade Control needed
3c. Strengthen DER forecasting and planning tools to optimize system hosting capacity	 Develop EV Hosting Capacity and Energy Storage Maps to provide information to customers and developers on favorable locations Update locational values analysis for constrained areas 	Assess distribution planning capabilities and tools needed to support growth in DER and develop an implementation plan	 Impleme planning needed
Reduce the number and duration of outag	ges caused by storms and other emergencies		
4a. Optimize implementation of overhead and underground storm hardening through use of improved designs and methods	 Develop plans to harden supply to seven transmission load pockets and begin implementation Submit updated scope of work for FEMA storm hardening grant (if awarded) Develop planning and crew training for selective use of spacer cable to address key portions of the worst performing circuits Develop a program to selectively underground hard to access rear-lot service (based on 2022 pilots) Participate in EPRI's Climate READi initiative to model and evaluate climate risks and resiliency plans using industry best practices 	 Implement FEMA storm hardening grant Begin deployment of spacer cable Submit a multi-year storm resiliency plan to the LIPA Board for review 	
4b. Utilize vegetation intelligence to enhance the effectiveness of vegetation management and storm hardening programs	 Implement "Trim to Sky" protocol to the first protective device complete 50% of circuits Define business requirements for a vegetation management system Identify cost effective monitoring technologies (e.g. satellites, drones) and data sources (e.g. density, species, growth rates) to better target tree trimming and hazard tree removal efforts 	 complete 75% of circuits Select a vegetation management — system vendor and issue an RFP 	complete 1009 ➤ • Vegetation system im
4c. Strengthen predictive storm impact modeling to better anticipate, prepare for, and respond to storms	 Map recent storm hardening and vegetation management initiatives 	 Implement a new digital storm modeling tool Design and develop the emergency response organization (skills and structure) to best leverage enhanced impact modeling and EAMS tools Conduct a needs assessment of weather and storm impact data and modeling software solutions 	

2025	2026	2027
ade Distribution ol Center as ed	→	
ment distribution ing upgrades as ed		
	-	
00% of circuits tion management implementation		
		30

6

OBJECTIVES	2023	2024	2
5a. Develop and implement advanced physical security and monitoring systems to mitigate current and emerging security risks	 Conduct a physical security vulnerability assessment Develop a comprehensive physical protection		

Provide a safe environment for LIPA's dedicated workforce and the public

6a. Eliminate fatalities and serious injuries to employees, contractors, and members of the public by addressing contributing operational factors	 Conduct annual safety performance metric benchmarking	
	 injuries Enhance internal reporting on employee driving behavior through the Automated Vehicle Location System (AVLS) to help prevent motor vehicle accidents Assess need for additional functionality within the Safety Information Management System (SIMS) Scale up training and certification program for safety professionals Continue public safety outreach through community events and other communication channels 	 Implement additional SIMS modules as needed (e.g. risk assessment, root cause analysis)

2025	2026	2027
	Conduct triennial third-party safety assessment	
		32



GOAL HIGHLIGHTS

2

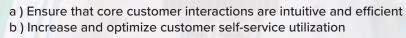
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6

Enhance customer transaction performance through analysis of customer and operational data

a) Expand customer feedback and sentiment data collection using emerging technology b) Utilize customer experience and operational data to formulate operational improvements

Optimize customer channel experience and improve self-service utilization



Modernize core customer systems to enhance operational effectiveness and deliver on customer needs

a) Implement a new customer information system (CIS) to transform the customer experience b) Enable cutting edge technologies and analytics for the Call Center Solution to facilitate continuous improvement

c) Build out cost effective customer experience opportunities inherent in the AMI system implementation

Improve energy affordability through rate design and targeted programs

a) Rollout time-of-day rates that encourage customers to shift usage to lower cost and cleaner times of day b) Integrate customer experience considerations into rate and tariff decision making c) Expand low-to-moderate income program participation and benefits to disadvantaged communities

Provide proactive and personalized communications and customized offerings to customers

a) Ensure timely and accurate communication to customers about outages and restoration times b) Strengthen capabilities for data-driven segmentation to enable customized communications and offerings

a) Ensure the organizational structure and staff capabilities to deliver exceptional service

Strengthen customer operations capacity within LIPA and PSEG Long Island

OBJECTIVES	2023	2024	
1a. Expand customer feedback and sentiment data collection using emerging technologies	 Develop an overall customer survey strategy to optimize response and ensure quality insights for completed and failed transactions Expand transactional surveying to additional channels Measure customer satisfaction after customer-facing technology implementations against pre-implementation targets and identify opportunities for improvement 	 Create a process for interaction sentiment analysis Measure first contact resolution across channels Track and log customer journey across → and within channels for Time-of-Day opt out 	Expand add digital custo in-channel, Enhance cu tracking and across and Assess surv sentiment a survey gaps that may be
1b. Utilize customer experience and operational data to formulate operational improvements	 Analyze ease, satisfaction, and cost of transactions and prioritize refinements Enrich customer survey results with additional data to deepen customer insights <i>Outage and payment</i> 	 Moves and billing Formulate flow improvements based — on journey tracking 	» Collecti » 2 addit.
2 Optimize customer channel experience a	and improve self-service utilization	» TOD opt out	across

2 a.	Ensure core custome	r interactions	are intuitive
and	efficient		

- Implement identified improvements from outage assessment
- Create consistent standards and guidelines for deferred payment options
- Migrate credit card operations to a new vendor to enhance customer experience and reduce credit card fees for commercial customers
- Enhance data reporting and tracking for estimates and cancel rebill processes
- Improve customer ability to execute a deferred payment agreement on self-service

- Conduct a feasibility study for real-time payment posting and implement (*if feasible with legacy systems*)
- Conduct full assessment of billing processes
- Allow customers to select their preferred payment due date
- Establish a new OSA metric to measure timely billing based on an actual read and define targets
- Default new MyAccount profiles to
 e-bill
- Establish a concierge service for transactions requiring a higher level of care

2025	2026	2027
dditional non CCaaS stomer survey to include el, real-time surveying		
customer journey and logging capability d within channels urvey feedback versus t analysis to reassess ups and opportunities be filled by sentiment		
	_	
ction & new business		
litional processes s all channels	» 2 additional processes across all channels	

- Implement identified
 improvements from billing
 process assessment
 - Break down authentication

security

- barriers without compromising
- Implement realtime payment posting (*if a new* CIS is required for implementation)
- Implement identified improvements from Collection and new business process assessment
- Improve CSR visibility of customer interactions and contact history
- Establish a full-featured customer preference center for interactions

OBJECTIVES

2b. Increase and optimize customer self-service utilization

- Implement chat and chatbot
- Replace Salesforce solution for email and close ineffective email channels

2023

- Automate customer move out and transfer processes
- Install four kiosks for 24/7/365 customer payment and transaction access
- Assess customer office location needs and alternative forms for community presence and customer engagement and begin implementation of identified solutions
- Build 2 smart webforms with validation
 for requiring documentation

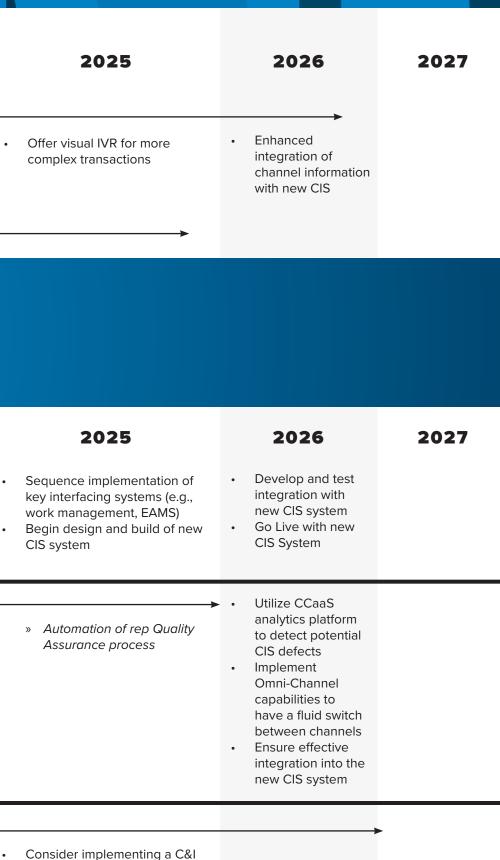
2024

 Automate customer move in process
 Expand kiosks based on 2023 findings and enhance capability of kiosks to perform a standard payment agreement

steps for scaling

Modernize core customer systems to enhance operational effectiveness and deliver on customer needs.

OBJECTIVES	2023	2024	2
3a. Implement a new customer information system (CIS) to transform the customer experience	 Define CIS business and technical requirements Conduct CIS organizational readiness and data quality assessments 	 Address CIS organizational gaps (staffing, structure, skills) Identify preferred CIS platform and issue RFP Issue RFP and select vendor for development and integration 	 Sequence in key interfact work manage Begin design CIS system
3b. Modernize customer contact systems (CCaaS) to facilitate self-service	 Develop a 2-year roadmap for future CCaaS enhancements Go live with full CCaaS functionality (Webchat, Voice Enrollment & Verification, Quality Mgmt, Interaction Analytics, Workforce Mgmt) Operationalize certain voice analytics tools (e.g., same-day escalation remediation) Legacy system retirement 	 Implement CCaaS enhancements Advanced analytics and reporting products 	» Automat Assuran
3c. Build out cost effective customer experience opportunities inherent in the AMI system implementation	 Define customer-facing AMI data requirements as part of enterprise-wide Data Warehousing and Analytics Strategy (see IT roadmap) Enhance the reporting and validation of meter reads Conduct RFP to consolidate AMI data vendors 	 Implement customer AMI data functionality enhancements Provide expanded availability of load disaggregation data to inform customer guidance on energy consumption habits Develop a single user interface for customer access to AMI data Evaluate the Next Generation Insights pilot and determine potential next 	Consider im Demand Ale commercial demand cha



Alert Pilot to help cial customers manage charges

OBJECTIVES	2023	2024	20
4a. Rollout time-of-day (TOD) rates that encourage customers to shift usage to lower cost and cleaner times of day	Design and implement customer decision support tools	 Establish TOD as the default rate for residential customers Conduct a multi-channel information and marketing campaign 	 Modernize Migrate 850 (85%+ of recustomers) guarantees out Complete p protection
4b. Integrate customer experience considerations into rate and tariff decision making	 Create a cross-functional rate implementation team (finance, rates, billing, IT, customer experience) 	 Conduct a full review of all rates and tariffs, including inter-class break points, focused on rate simplification, customer friendliness, and plain language 	 Implement i identified b
4c. Expand low-to-moderate income (LMI) program participation and benefits to disadvantaged communities	 Utilize data-driven targeting and expand marketing and outreach to grow enrollment in income qualified programs Finalize reporting framework for benefits to disadvantaged communities with NYSERDA Expand LMI qualifications to be consistent with the rest of the state Simplify the deferred payment plan process for customers with significant financial hardship 	 Assess performance of LMI programs against policy goals Assess effectiveness of consumer advocates in facilitating customer access to LIPA, state, and federal programs Review reduced payment agreement qualification process and implement opportunities to improve user friendliness 	

Provide proactive and personalized communications and customized offerings to customers

5a. Assure timely and accurate communication with customers about outages and restoration times

- Develop and implement the Strategic Technology Plan for the -Outage Reporting and Communications
- Improve the effectiveness of outage communication

- Improve awareness for customers that had perfect power
- Offer outage tracker updates via text and push notifications
- customer for outag

2025	2026	2027
Modernize commercial rates Migrate 850,000+ customers (85%+ of residential customers) with bill protection guarantees and ability to opt out Complete phase out of bill protection		
Implement improvements identified by the review		
Consistently provide the customer the reason	•	

OBJECTIVES

5b. Strengthen capabilities for data-driven segmentation to enable customized communications and offerings

2023

Implement Customer Intelligence Pilot program

 Improve the Home Comfort program contractor network through data-driven marketing, decision support tools, contractor vetting, and performance incentives

2024

• Full implementation of segmentation tools building on lessons of pilot

•



Strengthen customer operations capacity within LIPA and PSEG Long Island

6a. Ensure the organizational structure and staff capabilities to deliver exceptional service

- Conduct a Customer Operations organizational assessment to determine organizational alignment, appropriate headcount levels, optimal reporting and support ratios, and required capabilities and skillsets.
- Fill vacant LIPA Customer positions

- Implement changes identified in the organizational assessment
- Define required data analysis capabilities and integrate into hiring decisions and staff training
- Assess staffing requirements for concierge service



Develop a plan to integrate segmentation tools and customer preferences within the new CIS platform

- 2026
- Explore additional • use cases of customer segmentation tools
- Go live with full ٠ integration of segmentation tools within CIS platform



GOAL HIGHLIGHTS

Decrease LIPA's leverage and cost of capital



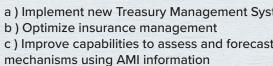
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a) Achieve AA-category credit ratings by reducing LIPA's debt-to-assets ratio from 92% to 70% or less by 2030 b) Maximize grants and low-cost funding sources c) Minimize costs through securitization of debt and tax-exempt financing

Advance a "value for money" culture by strengthening budgets, financial plans, and financial reporting that maximize customer value, support aggressive cost management, and drive sound business decisions

a) Establish and staff a Business Cost Optimization practice within LIPA
b) Assure LIPA and PSEG Long Island have the required financial analysis and fiscal management capacities
c) Strengthen processes for Capital Project review and approval
d) Establish an integrated operational and financial performance monitoring framework and incorporate it into regular management and reporting processes

Enhance LIPA's financial operations



FINANCE

a) Implement new Treasury Management System to enhance operational efficiencies and cash forecasting

c) Improve capabilities to assess and forecast revenues, sales, cash flow, and the impact to cost recovery

OBJECTIVES	2023	2024	2025	2
1a. Achieve AA-category credit ratings by reducing LIPA's debt-to-assets ratio from 92% to 70% or less by 2030.	 Implement LIPA's springing lien bond indenture to update bond covenants 	 Simplify bank borrowings using new bond indenture 	 Achieve 82% debt-to-asset ratio or lower 	Consider a for rate sta balances
1b. Maximize grants and low-cost funding sources.	 Secure \$300+ M new FEMA grant for storm hardening Obtain FEMA reimbursements for Sandy and Isaias 	 Begin storm hardening construction under new grant 		
1c. Minimize costs through securitization of debt and tax-exempt financing.	 Close an electricity pre-pay for savings Refinance debt through securitization for savings 	 Refinance debt through securitization for savings Reduce cost in real estate through direct ownership (in lieu of leasing) 	 Complete \$3.5 billion authorized debt securitization program 	
1d. Reduce costs in real estate	 Purchase a property for a new operations yard to replace a yard currently under lease Assess and execute on property ownership opportunities at Riverhead National Grid property 	 Consider additional opportunities for ownership of National Grid lease properties based on Riverhead experience 		-

2026

2027

- er a bond covenant stabilization fund s
- Achieve 75% debt-to-assets
 ratio or lower
- Achieve at least A1/A+
 credit ratings
- Complete storm hardening
 and obtain grant
 reimbursement

Advance a "value for money" culture by strengthening budgets, financial plans, and financial reporting that maximize customer value, support aggressive cost management, and drive sound business decisions

OBJECTIVES	2023	2024	2025	
2a. Establish and staff a Business Process Optimization practice within LIPA	 Establish and define the roles and responsibilities for the BPO team Complete up to 3 business process reviews (including implementation of prior studies on fleet, overtime, workforce management, vegetation management) Track savings and process improvements from recommendations and business process reviews 	 Review effectiveness of BPO and capacities and capabilities Build savings from BPO initiatives into budgets 		
2b. Assure LIPA and PSEG Long Island have the required financial analysis and fiscal management	 Complete consultant study of current capacities and potential realignment of budget department roles and responsibilities at LIPA and PSEG Long Island Establish an implementation plan to address study findings 	Review the effectiveness of the budget department compared to KPIs		
2c. Strengthen processes for Capital Project review and approval	 Implement a cross-functional (finance, T&D, IT) review of PSEG's capital project review and approval process, including PSEG's controls, project scoping, risk assessment and prioritization, estimation, and budget review and approval Translate findings of cross-functional review into system requirements Review Capital Project Impact Analysis process for effectiveness 	 Implement a capital project and capital budget management system to replace Excel-based manual processes used to support approvals and monitor performance. Consider use or replacement of project scheduling and selection tools (SOS and Primavera) 		
<text></text>	 Review EAMS requirements compared to desired managerial reporting capabilities (e.g. workforce management, inventory management) Pilot an integrated operational and financial performance monitoring framework in one to two areas (e.g. inventory, fleet, overtime) » Define roles & responsibilities in LIPA and PSEG Long Island » Associate large cost categories with underlying cost drivers » Incorporate cost driver metrics into budget and variance reporting » Establish a monthly departmental meeting between LIPA and PSEG Long Island to review integrated reports 	 Integrate EAMS Reporting into Operational and Financial Performance Monitoring Framework Roll out integrated reporting framework to all departments Establish a feedback mechanism to learn whether managers are getting the information they need and refine reports accordingly 		

2026	2027
	48

2e. Enhance storm response cost transparency and FEMA grant management

C

- Define objectives for storm cost and FEMA grant review function and determine whether objectives are being met.
- Assess capacities and capabilities at LIPA and PSEGLI to meet the objectives and determine what do we need to be successful.
- Define an insightful storm dashboard and develop standard reporting on key cost drivers per storm including operational response plans for each storm category and compare that to actual response
- Review the effectiveness of storm cost and FEMA grant review function compared to KPIs

Enhance LIPA's financial operations

OBJECTIVES	2023	2024	2025	20
3a. Implement new Treasury Management System to enhance operational efficiencies and cash forecasting	 Implement Treasury Management System and realize operational efficiencies 	 Enhance cash expenditures forecasting tools and management 		
3b. Optimize insurance management	 Complete insurance optimization study of property, casualty, and health care, including examining an owner-controlled insurance program 	 Seek legislation to establish a captive insurer Establish a captive insurer for cost savings 		
3c. Use AMI information and enhanced analytics of CAS data to improve the management of operating revenues and cash receipts through enhanced capabilities to forecast and assess: changes in customer usage patterns; resulting sales and revenues; anticipated cash receipts; and the performance of the recovery mechanisms	 Develop a model for translating daily use and revenue into billed revenue and daily cash receipts based on recent actual experience Develop processes for using customer AMI data to measure daily use and explain the resulting budget variances in energy sales, and revenues Update the factors used to estimate the Reserve for Uncollectible Revenue and Bad Debt Expense 	 Refine the segmentation of residential and commercial customer usage to explain year-over-year variances Complete a benchmarking review by an independent consultant of LIPA's revenue forecasting, cash flow forecasting, and variance tracking processes 	 Develop forecasts using the refined segmentation of residential and commercial customer usage 	 Use the daily trends identifi data to imple and pricing o

2026

2027

laily and hourly load entified in the AMI plement marketing ng opportunities

INFORMATION TECHNOLOGY

Montauk Energy Storage Center | Montauk, New York

GOAL HIGHLIGHTS



6

manner

a) Proactively manage project implementation for planned systems modernization initiatives

Establish dedicated and independently operable information technology, operational technology, and cybersecurity systems for Long Island operations

a) Execute the Board-approved plan to separate 46 Long Island IT systems and support organizations currently intermingled with PSEG corporate systems and structures

Ensure that technology platforms are robust and provide operational stability

a) Develop robust business continuity, disaster response, and incident response plans for all critical systems and processes and independently verify emergency restoration plans and IT systems testing b) Ensure all IT and OT assets are within their active service life and under general support from the product vendor

Protect IT systems and customer, employee, and third-party data from unauthorized access or disruption

a) Build a dedicated cybersecurity organization for Long Island capable of developing and managing a cybersecurity program

technology systems and promptly mitigate vulnerabilities of customer information have robust information security practices

Strengthen long-term IT and OT systems planning

a) Develop and implement technology strategies to anticipate future business needs and ensure systems coherence

Strengthen the capacity of the IT organization

a) Establish a dedicated IT management team for Long Island operations and advance IT organizational maturity as measured by industry standard models b) Design and implement an IT governance structure to guide IT delivery across multiple enterprise goals c) Establish a Long Island-based Project Management Office responsible for implementing large IT projects d) Develop third-party contracting resources to meet Long Island needs



Ensure that systems implementations deliver on business requirements in a timely and cost-effective

- b) Conduct regular vulnerability assessments and penetration testing of all information and operational
- c) Communicate how customer information is collected, used, and disclosed, and ensure that third-party users

Ensure that systems implementations deliver on business requirements in a timely and cost-effective manner

Figure 6: Indicative implementation plan for key systems modernization initiative

Figure 6: Indicative implementation plan	n for key systems modernization initiatives						
PRIMARY FUNCTION	SYSTEM DOMAIN	2023	2024	2025	2026	2027	,
Customer	Customer Information System (CIS)						
	Contact Center (CCaaS)		Follow-on system	m enhancements			
	Time-of-Day Rate Support Systems						
Transmission & Distribution	Enterprise Asset Management System I & II						
	Enterprise Asset Management System Phase III (Asset Investment Planning)						
	Advanced Distribution Management System (ADMS) Phase I						
	Advanced Distribution Management System (ADMS) Phase II						
	Distributed Energy Resource Management (DERMS) Phase I						
	Distributed Energy Resource Management (DERMS) Phase II						
	Meter Data Management Systems (MDMS)						
	Transmission Control System						
	Vegetation Management Systems (VMS)						
	Emergency Response Dashboard						
	Physical Security Systems						
	Contractor Safety Tracking and Reporting System						
	Construction Portfolio Management	P6 Upgrade	EAMS Integration				
	Storm Reconciliation & Reimbursement Systems					Planning	
	Damage Assessment Systems				Im	plementation	
53	Storm Communications Systems						54

Ensure that systems implementations deliver on business requirements in a timely and

cost-effective manner	ntations deliver on business requirements in a timely and					
Figure 7: Indicative implementation plan	n for key systems modernization initiatives (continued)					
PRIMARY FUNCTION	SYSTEM DOMAIN	2023	2024	2025	2026	2027
	Budgeting System					
	Treasury Management System					
Finance	Enterprise Resource Planning System (ERP)					
	Vendor Management System					
	Network, Endpoint & Data Security Systems					
	Identity, Access Management & Key Management Systems					
Cybersecurity	OT Security Operations and Response Systems					
	Security Monitoring					
IT	IT Portfolio Management System					
	Standardized Data Access Platform (SDAP)					
	Enterprise Document Management System (EDMS)					
	Desktop					
Enterprise Platforms	Governance, Risk, and Compliance Management					
	Geographic Information System (GIS)					
	Mobile Access					
55						56

Establish dedicated and independently operable information technology, operational technology, and cybersecurity systems for Long Island operations

Figure 8: Indicative schedule to separate 46 LIPA systems currently intermingled with PSEG corporate systems	Q1	202 Q2	23 Q3	Q4	Q1	20 Q2	24 Q3	Q4
Assess staffing needs and fill required positions	Staffi	ng needs asse	essment	→ F	liring			>
Implementation Bundle 1: ERP and Ancillary Systems - 8 systems in the Finance and HR business areas - SAP system carve out - 10 to 15 months implementation								
Implementation Bundle 2: Email and Communications Infrastructure - 10 systems in the IT and Cybersecurity business areas - 12 to 24 months implementation								
Implementation Bundle 3: Hosted (Cloud) Systems - 21 vendor provided hosted systems - 12 to 24 months implementation								
Implementation Bundle 4: On-Premise Minor Systems - 7 minor systems in Legal, HR, IT, and Cybersecurity - 6 to 12 months implementation								
57								58

OBJECTIVES

3a. Develop robust business continuity, disaster response, and incident response plans for all critical systems and processes and independently verify emergency restoration plans and IT systems testing

- 2023
- Establish criteria and categorize functions and systems based on criticality
- Map business processes for critical functions and systems
- Develop Business Impact Analyses, Disaster Recovery Plans, Business Continuity Plans, and Incident Response Plans for all critical systems and address identified quality concerns
- Conduct testing exercises
- » Wave 1 systems by 6/30/23
- » Wave 2 systems by 10/1/23
- » Wave 3 systems by 11/15/23

2024

- Update Disaster Recovery Plans and Business
 Continuity Plans for all critical systems annually
- Evaluate needs and requirements for an automated business continuity management system
- Expand Disaster Recovery Plans and Business Continuity Plans for the next tier of systems
- Review technology architecture for all critical systems and implement high availability opportunities

3b. Ensure all IT and OT assets are within their active service life and under general support from the product vendor

- Develop an updated IT and OT asset inventory with lifecycle indicators
- Update the 2-year Refresh Plan to account for any relevant changes and complete planned for the current year
- Complete Life Cycle Planning (LCP) projects budgeted for 2023
- Develop an IT/OT asset lifecycle management and governance framework

4

Protect IT systems and customer, employee, and third-party data from unauthorized access or disruption

4a. Build a dedicated cybersecurity organization for Long Island fully capable of developing, managing, and supporting a cybersecurity program

- Complete hiring for critical positions identified in Cyber Organization Re-design plan
- Conduct a Cybersecurity Organization study to determine appropriate structure, staffing, and capabilities
- Implement recommendations from the Cyber Security Organization Study

2025

2026

2027

Develop Business — Impact Analyses, Disaster Recovery Plans, and Business Continuity Plans for Wave 4+ systems and conduct testing exercises Assess need for a data bunker for cyber event protection and restoration

OBJECTIVES 4b. Conduct regular vulnerability assessments and penetration testing of all information and operational technology systems and promptly mitigate vulnerabilities	 Conduct quarterly internal vulnerability assessments for all	2024	2025	2026	2027
4c. Communicate how customer information is collected, used, and disclosed and ensure that third-party users of customer information have robust information security practices	Address 2022 third-party risk audit findings	 Conduct a biennial third-party risk assessment and address identified gaps 			
5 Strengthen long-term IT and OT systems p	lanning				
5a. Develop and implement technology strategies to anticipate future business needs and ensure systems coherence		 Security strategy and policy Security strategy for all cloud and on premises IT and OT systems Zero Trust Network strategy Develop and implement an enterprise-wide Data — Warehousing and Analytics Strategy Map business data sources and prioritize use cases Identify required tools and systems Identify data analytics capability gaps 	 Plan for the future of OMS Develop and implement a long-term systems replacement & technology modernization strategy covering key system domains » Long term IT architecture and systems integration » Core vendor partners 		
		 Establish a Mobile Center of Excellence to develop a mobile framework, standards, and guidelines, and oversee mobile application development consistent with 		→	

application development consistent with the Long-Term Enterprise Mobility Plan

OBJECTIVES	2023	2024	
6a. Establish a dedicated IT management team for Long Island operations and advance IT organizational maturity as measured by industry standard models	 Fill all approved IT management positions Follow CMMI Level 3 processes in the Doing and Managing categories for all projects initiated on or after 9/1/22 Follow CMMI Level 3 processes in all categories for all projects initiated on or after 5/1/23 	 Conduct a comprehensive organizational structure, capacity, and readiness assessment of the Long Island IT organization, including alignment with systems separation requirements Conduct a CMMI Process Benchmark Appraisal Conduct an ITIL maturity model assessment and implement identified business process improvements 	• Imp rec the ass
6b. Design and implement an IT governance structure to guide IT delivery across multiple enterprise goals		 Expand Joint System Planning Advisory Committee role to cover all business areas Identify IT governance gaps and needs Develop the terms of reference and form a Joint LIPA-PSEG Long Island System Planning Advisory Committee Pilot the Joint Advisory Committee with 2 to 3 large systems initiatives Plan and implement an IT Portfolio Planning System 	
6c. Establish a Long Island-based Project Management Office (PMO) responsible for implementing large IT projects	Hire a Director of Project Management	 Conduct a third-party assessment of PMO performance Develop a PMO charter and staffing plan Develop PMO capacity to manage at least 10 medium-sized (>\$1m) projects 	• Exp mai me pro
6d. Develop third-party contracting resources to meet Long Island needs (i.e., systems implementation, specialized studies, staff augmentation)		 Develop and implement a procurement plan and procurement vehicles for Long Island IT contracting services Conduct an inventory of current contracting services 	

2025	2026	2027
mplement — recommendations from the IT organizational assessment	*	
Expand capacity to manage at least 25 medium- and large-scale projects		
		64

PERFORMANCE MANAGEMENT

GOAL HIGHLIGHTS

O PSEG

Ensure that key provisions of the 2nd A&R OSA intended to enhance performance are fully and successfully implemented

a) Socialize key contractual changes within LIPA and PSEG Long Island b) Build the capacity in LIPA and PSEG Long Island to effectively employ performance management mechanisms provided by the 2nd A&R OSA (IV&V, metrics, manager performance evaluation)

Create a performance management culture across LIPA and PSEG Long Island

a) Define clear performance expectations and standards for the service provider b) Continually identify and integrate best practices of industry-leading utilities c) Strengthen vendor management capabilities within LIPA

Ensure that the next OSA reflects LIPA's accumulated knowledge and experience on performance management

a) Document the lessons learned on performance management and integrate them into the vendor selection process and contractual framework for the next OSA

Prepare for the potential transition of PSEG affiliate functions at the end of the current contract in 2025

a) Document and review the processes and services provided by PSEG affiliates and identify sourcing alternatives

OBJECTIVES	2023	2024
1a. Socialize key contractual changes within LIPA and PSEG Long Island	 Develop and implement mechanisms (e.g. series of short videos) for communicating and educating LIPA staff on key changes and provisions in the new OSA 	 Ensure areas of the OSA where there is not sufficient clarity currently are identified and fully addressed in the next OSA (see goal 3)
1b. Build the capacity in LIPA and PSEG Long Island to effectively employ performance management mechanisms provided by the 2nd A&R OSA: Independent Verification and Validation (IV&V)	 Develop a guiding framework on IV&V What it means Depth of analysis Required artifacts and evidence Develop standardized reporting templates that also meet the specific needs of each scope-function. Define data access requirements and implement data access platform for routinely accessed data Define specific skills for IV&V, assess skill gaps, and train LIPA SMEs Develop and deliver an introductory training package on IV&V for PSEG Long Island executives and managers Review and report on PSEG Long Island adherence to compliance with the IV&V framework as a part of annual manager evaluations 	 Fully integrate the data access platform into the IV&V process Refine IV&V framework and training packages based on lessons learned Implement remedial training and procedures as needed
1b. Build the capacity in LIPA and PSEG Long Island to effectively employ performance management mechanisms provided by the 2nd A&R OSA: Compensation-linked Performance Metrics	 Develop a guiding framework on designing performance metrics What constitutes a 'good' metric? How and when to utilize different types of metrics: Quantitative vs. qualitative/project-based Fundamental vs. incremental vs. innovation How to incorporate 'stretch' goals and incentivize continuous improvement? How to structure compensation incentives? How to advance short-term vs. long-term objectives using metrics? Conduct training on metric design across LIPA 	 Revisit and refine the metric design framework based on lessons learned Incorporate lessons learned on metric design into the contractual framework of the next OSA (see goal 3)



1b. Build the capacity in LIPA and PSEG Long Island to effectively employ performance management mechanisms provided by the 2nd A&R OSA: **PSEG Long Island Manager Performance Evaluation**

- Define clear standards for PSEG Long Island senior managers, including competencies, capabilities, and performance expectations for associated scope functions (including progress on metrics)
- Develop the process and tools for annual senior manager
 assessment
- Conduct first assessments of PSEG Long Island senior managers

- Assess and refine the manager performance evaluation
 process as appropriate
- Enforce terms of the 2nd A&R OSA regarding compensation and prospects for promotion for managers that repeatedly fail to meet standards

Create a performance management culture across LIPA and PSEG Long Island

OBJECTIVES

2a. Define clear performance expectations and standards for the service provider

2023

- Create a unique set of quality standards for each of 5 key deliverables/work products where content quality is highly variable or consistently below expectations (e.g. project plans, project justification documents, IT test plans, business continuity plans, Requirements Traceability Matrixes (RTMs), budget proposals and cost estimates, statements of work, service level agreements, change orders, performance and project reporting)
 - » Standards should focus on content quality rather than template design and should combine common standards for all deliverables of a given type as well as any function specific requirements
- Socialize quality standards across LIPA and PSEG Long Island using concrete examples of deliverables that do and do not meet standards.
- Set clear standards for project management performance
 - Identify appropriate project management standards (e.g. CMMI) that are specific to the individual requirements in each key functional area, to the extent that they exist.
 - » Provide feedback on content and quality of PSEG Long Island project management training
- Demonstrate the effective use of the standards and templates through the successful execution of metrics and project plans

2024

- Develop quality standards for an additional 3 to 5
 deliverables/work products
- Review current year work products and deliverables against standards and refine standards based on experience
- Review project management standards and refine based on experience
- Conduct a maturity assessment against industry project management standards in select functional areas and develop a roadmap to address gaps

- Develop quality standards for an additional 3 to 5
 deliverables/work products
- Implement functional roadmaps to strengthen project management capabilities

2b. Continually identify and integrate best practices of industry-leading utilities

- Set clear expectations for LIPA SMEs for developing and defining business process/practice enhancement ideas
- Review staffing of existing industry participation and create additional opportunities for LIPA staff to gain exposure to emerging/innovative practices
- » Identify relevant conferences/industry groups for LIPA SMEs and encourage active participation
- Strengthen LIPA's skills for selectively integrating industry best practices within Long Island operations (building on lessons from current initiatives in Fleet and Overtime), including SME skills development in
- Identifying and engaging through an RFQ solicitation a catalog of qualified consultant(s) that are qualified to conduct due diligence on industry best practices and their appropriateness to LIPA's situation
- » Evaluating current practices against industry-leading standards and prioritizing gaps
- » Creating a detailed project plan and implementation roadmap as part of ongoing departmental roadmap efforts to address gap areas

- Identify best practice enhancement opportunities in all scope areas and prioritize initiatives for implementation
- Review effectiveness of industry group participation by LIPA SMEs in terms of value-added to LIPA customers
- Document the use of the catalog of consulting resources developed from the 2023 RFQ solicitation to quickly identify available resources best suited to address LIPA's needs

2c. Strengthen vendor management capabilities within LIPA

- Define required competencies for effective vendor management (including those that go beyond IV&V, metrics, and manager evaluation in goal 1 above)
- Map competencies to LIPA roles (e.g. Executive Sponsors, Project Managers)
- Assess current capabilities and develop a roadmap to address identified gaps via training, business process reforms, and/or standards
- Identify, solicit, and engage a pool of qualified consultants with specific vendor management skill sets that LIPA can turn to for specific support needs (i.e., a "contractor on call" program)

- Implement vendor management roadmap priorities
- Assess whether and how LIPA's vendor management tools and training can be adapted and applied to help build vendor management capabilities in PSEG Long Island

Ensure that the next OSA reflects LIPA's accumulated knowledge and experience on performance management

3a. Document the lessons learned on performance management and integrate them into the vendor selection process (RFQ, RFP, etc.) and contractual framework for the next OSA

- Take stock of performance management frameworks and approaches and distill lessons learned to shape the next OSA
- Create a shared repository for LIPA staff to quickly document lessons and concerns with the current OSA as they emerge which begins with and includes observations already acquired through the present (2022)
- Incorporate relevant aspects of LIPA's performance management model and approach (e.g. service provider performance expectations by scope function) into bid solicitation processes as appropriate
- Incorporate lessons learned on performance management into the framework of the next OSA, including:
 - » Contractual terms, roles, obligations
 - » Guiding frameworks for performance management mechanisms (e.g. IV&V, metrics)
 - Function-specific performance expectations and best practices
 - » Processes for senior manager evaluation

OBJECTIVES

4a. Document and review the processes and services provided by PSEG affiliates and identify sourcing alternatives

 Across all departments, assess functions provided by PSEG affiliates, including a top-down review of all existing contracts that support PSEG affiliate functions, and explore sourcing alternatives

2023

