2027 Integrated Resource Plan

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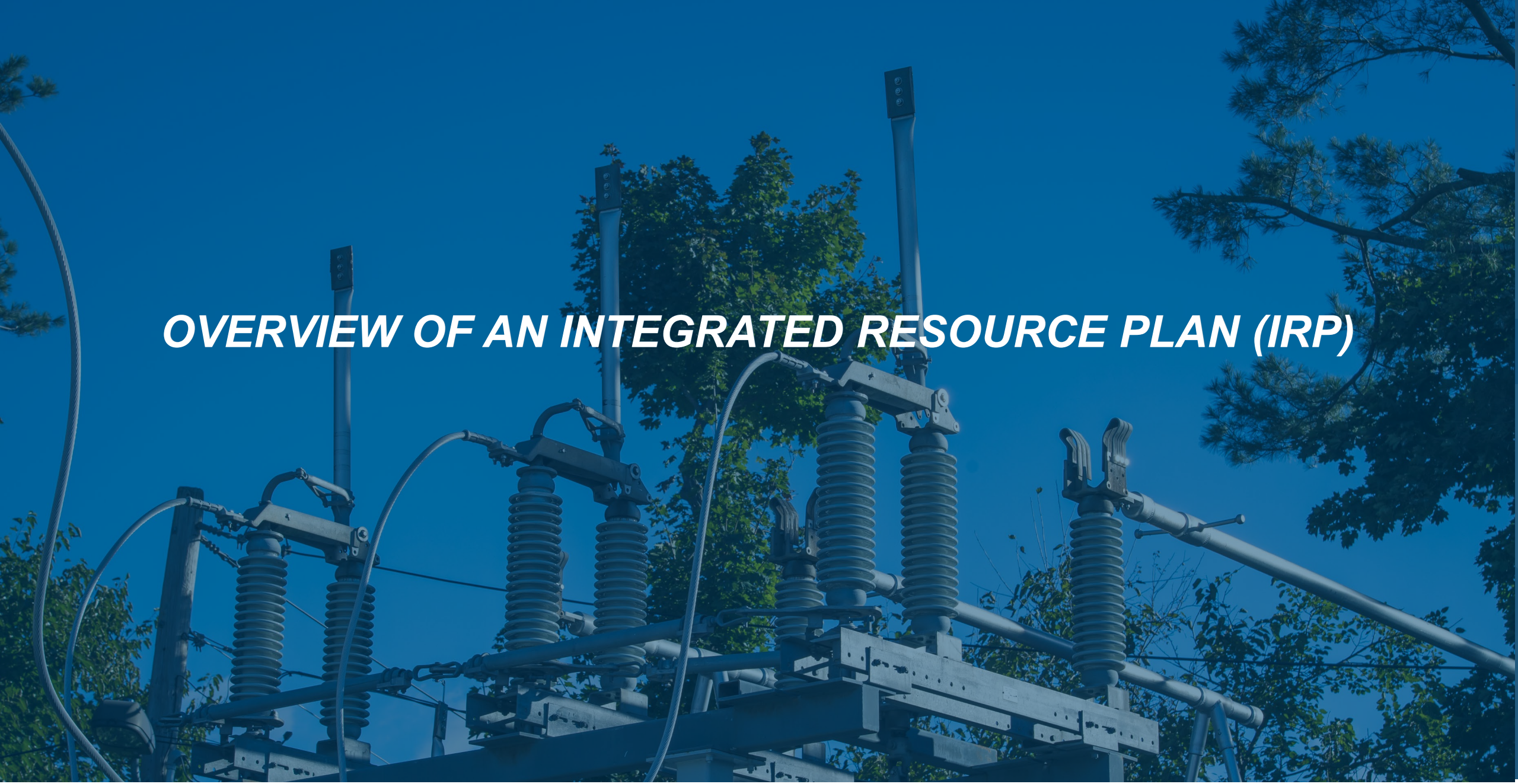
Discussion Topics

- OVERVIEW OF AN INTEGRATED RESOURCE PLAN (IRP)
- 2027 IRP MODELING SCENARIOS
- CONVERGING PRESSURES RESHAPING THE ENERGY LANDSCAPE
- 2027 IRP SCOPE, SCHEDULE & PUBLIC ENGAGEMENT



OVERVIEW OF AN INTEGRATED RESOURCE PLAN (IRP)

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What is an Integrated Resource Plan (IRP)?

An Integrated Resource Plan (IRP) is a comprehensive, forward-looking study that evaluates how LIPA will provide reliable, affordable, and sustainable energy for the future.

The IRP will evaluate tradeoffs across cost, reliability, and environmental goals; specifically, it will:

- ✓ Ensure access to affordable and reliable electric service under changing system conditions
- ✓ Inform operational strategy, procurement, capital planning related to resource investment, and system upgrades
- ✓ Continue to align system planning with regulatory requirements and reliability rules
- ✓ Facilitate emissions reductions
- ✓ Provide transparency and accountability to stakeholders and the public

OVERVIEW OF AN INTEGRATED RESOURCE PLAN (IRP)

Why does an IRP matter to customers?

About half of every electric bill goes toward the cost of producing or purchasing electricity. The decisions we make about generation and transmission, how we acquire and deliver that electricity, are long-term and involve significant investment, which directly affects customers. An Integrated Resource Plan (IRP) helps us make informed, forward-looking decisions so we can manage costs, maintain reliable service, and plan responsibly for the future.

When will work on the IRP process begin?

The IRP process will begin in May 2026 and conclude in the Summer of 2027. It will cover a 13-year planning horizon (2027–2039). An IRP is typically conducted every 3-5 years.

Who will prepare the IRP?

PSEG Long Island, in collaboration with LIPA, will develop the new 2027 IRP.

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OVERVIEW OF AN INTEGRATED RESOURCE PLAN (IRP)

What factors are considered when developing our IRP?

- **Balances Supply & Demand:** *Evaluates future energy needs & identifies the optimal mix of resources to meet them.*

- **Resources Considered:** *Includes dispatchable generation, renewable energy, energy storage, energy efficiency, and demand response.*

- **Data-Driven & Forward-Looking:** *Uses forecasting, modeling, & scenario analysis to plan for changing conditions.*

- **Affordability, Lower Emissions & Reliability Focused:** *Within each scenario, seeks to minimize costs for customers while maintaining system reliability and reduced emissions.*

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MODELING SCENARIOS

2027 IRP Modeling Scenarios

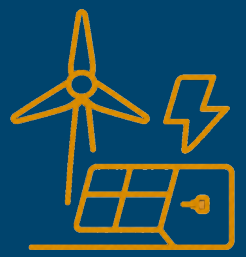
The IRP will evaluate four distinct scenarios to inform decision-making:

Existing Trajectory

No new additions beyond committed resources; identifies timing of reliability gaps

Clean Resources

Emphasizes renewables, storage, and demand-side reductions

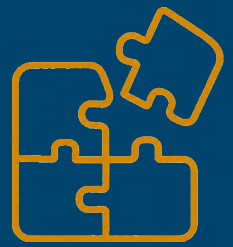


Least Cost

Prioritizes economic efficiency across all resource options

Hybrid Approach

Combines clean energy expansion with selective new dispatchable generation



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CONVERGING PRESSURES RESHAPING THE ENERGY LANDSCAPE

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Reliability Risks

- Growing system load, including large loads and electrification, reduces supply margin
- Intermittency of renewable resources requires dispatchable generation
- Aging generation requires higher maintenance costs to maintain performance
- Supply chain constraints have created extended lead times for generation and transmission equipment

Policy and Regulatory Challenges

- Permitting and zoning restrictions and reduction of off-shore wind lease areas has slowed development of clean resources
- Tightening of planning criteria by entities governing statewide reliability standards is increasing on-Island capacity requirements

Economic Challenges

- Recent rollbacks in federal tax incentives for EVs, solar, and wind projects have materially changed project economics
- Higher material and construction costs have resulted in project delays and overall increase in power supply costs
- Neighboring regions are capacity constrained and supply is becoming more expensive

IRP SCOPE, SCHEDULE & PUBLIC ENGAGEMENT

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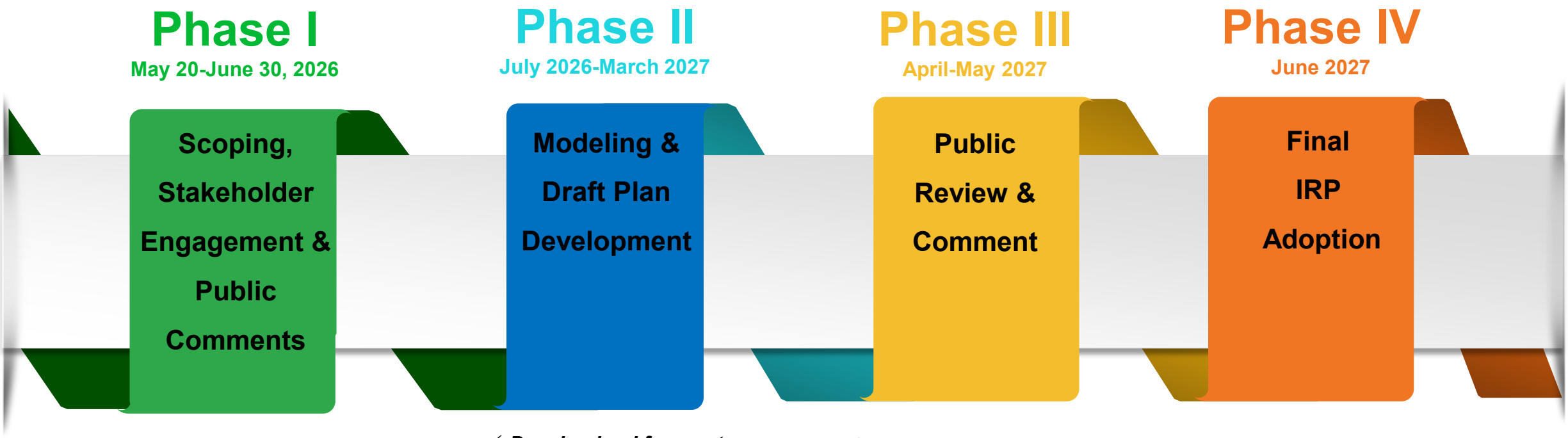
2027 IRP SCOPE, SCHEDULE & PUBLIC ENGAGEMENT



- ✓ *IRP Kickoff at the Board of Trustees Meeting*
- ✓ *Define study objectives*
- ✓ *Solicit public comment*

- ✓ *Develop load forecasts and resource scenarios*
- ✓ *Evaluate system needs under multiple futures*
- ✓ *Identify preferred resource strategies*
- ✓ *Assess cost, reliability, and emissions reductions*

- ✓ *Release draft IRP*
- ✓ *Solicit public comment*

- ✓ *Incorporate feedback*
- ✓ *Finalize report*
- ✓ *Board of Trustees adoption*

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Public Engagement

LIPA and PSEG Long Island will engage in a robust engagement process to ensure the public is informed and involved in the 2027 IRP. This process will include public comment periods, briefings, comment sessions, and outreach material.

Public Comments

The initial public comment period begins today, May 20th, and runs through June 30th. LIPA and PSEG Long Island will host the in-person and virtual public comment sessions listed below before the end of the comment period. Additional opportunities for public comment will be provided later in the IRP process.

Suffolk County
In-Person Public Comment Session
June 17, 2026, 9:30 a.m.
H. Lee Dennison Building, Room 182
100 Veterans Memorial Highway
Hauppauge, NY 11788

Nassau County
In-Person & Virtual Public Comment Session
June 17, 2026, 6:00 p.m.
LIPA, Conference Room
333 Earle Ovington Blvd, 4th Floor
Uniondale, NY 11553

Rockaways
In-Person Public Comment Session
June 16, 2026, 5:30 p.m.
Rockaway YMCA, Conference Room
207 Beach 73rd Street
Arverne, NY 11692

Written public comments, feedback, and questions can be provided directly via an online form or via email to comments@liresourceplan.com

IRP Website, Email & Notifications

A dedicated website has been created for 2027 IRP information and updates: **www.liresourceplan.com**

Interested parties can sign up to an email list via the website to receive updates

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Questions?

2027 IRP Scope of Work

The 2027 Integrated Resource Plan (IRP) will examine the supply-side, demand-side, and transmission resources necessary for the Long Island Power Authority (LIPA) to continue to provide reliable, cost-effective, and increasingly clean electric service to customers on Long Island and the Rockaways. The 2027 IRP will build on previous work. The development of the IRP is expected to extend from May 2026 to the issuance of a final report by the end of June 2027. The 2027 IRP will be developed by PSEG Long Island, as an agent of and acting on behalf of LIPA, and may be assisted by external consultants. This scope of work document provides background information and outlines the IRP's study period, objectives, and proposed scenarios.

The 2027 IRP will evaluate the existing generation resources and projected load forecast to determine the magnitude, timing, and type of generation needed to maintain system reliability, that is affordable and reduces emissions. The study will cover the years 2027 through 2039. Due to anticipated capacity deficiency during the study period, the upcoming study will be targeted in scope to allow for more expediated results. It is expected that the outcome of this assessment will inform the development of subsequent Requests for Proposals.

I. Background

New York State, including LIPA's service territory, is experiencing a rise in electricity consumption due to increasing demand from consumers. Increased demand is driven in part by widespread transitions to electric heat pumps and electric vehicles (EVs), which significantly increase overall electricity consumption. Moreover, New York is projected to experience a surge in electricity demand due to the expansion of large-load facilities. Overall, the NYISO forecasts that annual electricity usage in New York will increase by more than 16% over the next decade. Rising electricity demands, coupled with an aging on-island generation fleet, an increase in extreme weather events, geographic transmission limitations, and delays and terminations of critical planned projects due to national energy policies, all require LIPA to assess opportunities to build a diversified energy generation and integrated transmission portfolio.

Following NYISO's 2025 Q3 Short-Term Assessment of Reliability (STAR) report, identifying potential reliability shortfalls, the New York State Public Service Commission (PSC) issued an order directing Con Edison to release a Request for Information (RFI) seeking a broad array of potential non-emitting solutions. Additionally, the PSC encouraged LIPA to undertake a similar exercise. The analysis of the subsequent RFI responses is intended to be included in the development of this IRP.

To meet the capacity requirements, LIPA has, over time, entered a series of long-term power supply contracts with various on-island generators. Additionally, LIPA purchases capacity in the Rest of State (ROS) market and has in place several transmission agreements, including two firm transmission capacity purchase agreements, that enable import of economic energy and/or capacity from neighboring Regional Transmission Organizations (RTOs). Many of these contracts, both capacity and transmission agreements, will expire within the next ten years.

LIPA has approximately 5,500 MW of capacity under contract, excluding its 18% ownership of Nine Mile Point 2, of which 3,400 MW is comprised of local fossil-fueled steam and combustion turbine units under a long-term Power Supply Agreement (PSA) with National Grid Ventures. The PSA steam units total about 2,200 MW and are, on average, over 50 years old. The average age of simple-cycle combustion turbine units is approximately 50 years. While well-maintained, it is an old and thermally inefficient fossil fleet with contracts due to expire in April 2028. The remaining capacity under contract to LIPA through Power Purchase Agreements (PPAs) totals approximately 2,100 MW and includes combined cycle and simple cycle units on Long Island, as well as a 685 MW contract for capacity from Marcus Hook, a power plant located in Pennsylvania, and 300 MW from Millenium in New England. The expiration of the various PPAs will occur over an extended period; however, the bulk of the contracted capacity is expected to expire by 2028, with the Marcus Hook contract expiring in 2030.

Additionally, LIPA maintains a PPA with the nation's first utility-scale offshore wind farm, South Fork Wind (132 MW), and will benefit from the completion of the Sunrise Wind Project (924 MW) anticipated in 2027. The addition of this intermittent power supply, which would total 1,056 MW of offshore wind, would create new operating challenges. Additionally, LIPA has seven PPAs with commercial-scale solar farms across Long Island totaling approximately 115 MW of clean energy integrated into the grid.

In addition to capacity contracts, LIPA also has Transmission Capacity Agreements (TCAs) with other parties. These include:

- The Cross-Sound Cable (CSC): A high voltage direct current (HVDC) cable from Shoreham, NY to New Haven, CT that is dedicated to LIPA's use under a firm transmission capacity purchase agreement for 330 megawatts of transmission capacity that enables LIPA to purchase power from New England. The CSC Agreement expires in 2032.
- The Neptune Cable: A firm transmission capacity purchase agreement that provides LIPA with the ability to purchase power from PJM via an undersea HVDC transmission cable capable of carrying 660 megawatts of electricity. The cable became operational in July 2007, and the current contract is set to expire in 2030.

In addition, the following AC interties connect Long Island's electric grid to surrounding systems in the region:

- Y-49 Cable: Installed in 1991, between East Garden City and Sprainbrook NY, with a summer capacity of 637 megawatts. The cable is fully owned and operated by NYPA.
- Y-50 Cable: Intertie connecting Dunwoodie to Shore Road, jointly owned by LIPA and Con Edison, with a summer capacity of 656 megawatts.
- 901 & 903 Cables: Two cables, with a total summer capacity of 508 megawatts, connecting Valley Stream, NY and Lake Success, NY to Jamaica, NY. Under normal conditions, ~300 megawatts of Con Edison's share of the power flowing across the Y-50 Cable is delivered to Con Edison via the two cables.
- The Northport-Norwalk Harbor Cable (NNC): Replaced the original cable in 2008, connecting Northport, NY to Norwalk Harbor, CT, with a summer capacity of 436 megawatts.

Fundamentally, an IRP matches supply (generation) to demand (electric load). On the generation side, the policies outlined in New York State's 2019 Climate Leadership and Community Protection Act (CLCPA) are guiding the state toward increasing electricity generation from renewable energy. In parallel with ambitious action on climate mitigation, reduction in capacity margin, more stringent reliability criteria, the ambiguity surrounding federal energy policies, as well as local energy storage moratoria, necessitates a comprehensive approach to assessing scenarios for a potential future generation supply portfolio. This includes considerations for all commercially available non-nuclear existing technologies - encompassing expansion of renewable resources, repowering and life extension strategies for existing generation sources, energy storage, and new dispatchable generation.

On the load side, LIPA, alongside PSEG Long Island, has implemented multiple energy efficiency programs, including Time-of-Day Rates, the Smart Savers and System Peak Relief programs, and the continuation of incentives for behind-the-meter residential solar.

Additionally, LIPA supports and is collaborating on the Propel NY project, which will expand transmission capacity to the downstate grid. While these measures help meet demand, Long Island's energy needs are still forecasted to grow at a pace that reduces future reserve margins and degrades reliability in the absence of a mitigation plan.

LIPA's 2027 Integrated Resource Plan will assess the service territory's outlook and options, while analyzing associated costs. The analysis will ultimately identify actions needed to provide reliable and affordable energy, while reducing the total carbon footprint to Long Island and the Rockaways.

II. Scope of Work

The IRP will assess meeting future energy needs over a thirteen-year horizon, extending to 2039. The plan will position LIPA to meet its objectives of maintaining reliability, while minimizing financial impact to customers and reducing fossil emissions.

A. Overview

The study will analyze four alternative scenarios, resulting in an action plan for the 2027-2039 period. The plan will consider supply- and demand-side resource additions, such as transmission upgrades necessary for import/export, renewable resources, repowering and life extension strategies for existing generation sources, energy storage, and new dispatchable generation. The plan will only consider technologies that are considered commercially viable and deemed feasible. PSEG Long Island will perform the following steps for each of the Scenarios:

1. Establish assumptions to be used in the analysis, including load forecast, which includes projections of behind-the-meter energy resources and the electrification of heating and transportation; NYISO system-level load; NYISO resource mix; committed resource additions such as offshore wind; and

2. Determine incremental LIPA resource needs by comparing LIPA's load and resource

forecast against resource adequacy requirements, identifying gaps and proposing resource solutions.

B. Study Period

The study period will span from 2027 to 2039 and will focus on actions needed over the next 3 years to maintain system reliability, while considering cost and environmental impacts.

C. Objectives

IRP objectives, along with a brief description of considerations associated with each objective, include the following:

1. Determine short-and long-term resource needs

   Evaluate supply and transmission requirements, including the amount of capacity needed to provide adequate reserve margins and reliability and assess scenarios for a possible future generation supply portfolio.

2. Consider options to meet resource needs

   Propose alternate scenarios to meet or exceed reliability and capacity requirements and standards.

3. Minimize cost impact to the extent possible

   Evaluate alternate proposed scenarios based on their projected cost.

4. Reduce emissions

   Evaluate alternate proposed scenarios based on their projected reduction to emissions (CO_2, SO_x, and NO_x) from Long Island generation, including emissions associated with imports.

D. IRP Scenarios

This section outlines a set of scenarios that are subject to stakeholder feedback. The IRP will examine:

1. Existing trajectory – assumes no resource addition besides what is already under construction or contract; most of existing resources remain. This deterministic scenario will identify timing and magnitude of resource adequacy deficiency

2. Clean resources – most of existing generation remains, but new solar, bulk energy storage systems, and wind resources are built to meet reliability requirements. Significant investment in customer/energy efficiency programs that reduce peak requirements.

3. Least cost – all commercially feasible resource options available for capacity expansion; economic considerations take priority.

4. Hybrid - similar to a “clean resource build out” scenario, but with the ability to substitute some clean resources or retire existing fossils, with new and efficient dispatchable generation.