FOR CONSIDERATION
December 16, 2020

TO: The Board of Trustees

FROM: Thomas Falcone

SUBJECT: Consideration of the Adoption the Isaias Task Force Phase I Options Analysis

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Requested Action

The Board of Trustees (the "Board") of the Long Island Power Authority ("LIPA") is requested to approve a resolution adopting the Isaias Task Force (the "Task Force") Phase I Options Analysis (the "Phase I Analysis"), which resolution is attached hereto as **Exhibit "A"**.

Background

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

On August 5, LIPA's Chief Executive Officer ("CEO") initiated an independent review of the circumstances and root causes that led to the lapses in PSEG Long Island's storm response. LIPA's CEO established a Task Force that was charged with providing actionable recommendations and overseeing PSEG Long Island's remediation activities. LIPA committed to reporting the Task Force's findings and recommendations to the LIPA Board of Trustees and the public in a 30-Day Preliminary Report, 90-Day Interim Report, and 180-Day Final Report.

The Task Force presented the 30-Day Report to LIPA's Board of Trustees at the September 23, 2020 Board Meeting and released it to the public. Because of the urgency of the immediate threat of another major storm, the 30-Day Report focused on the failures of PSEG Long Island's information technology and communication systems and their proximate causes and made recommendations for implementation by October 15, 2020.

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

The Task Force presented the 90-Day Report to the Board at the November 18, 2020 Board Meeting. The 90-Day Report expanded on the findings of the 30-Day Report and addresses broader questions on the effectiveness of PSEG Long Island's management of utility operations. As set forth in Appendix 2 and Appendix 3 of the 90-Day Report, the Task Force provided nearly 100 recommendations for the Board's consideration (the "Task Force Recommendations").

By Resolution No. 1568, dated November 18, 2020 (the "November Resolution"), the Board directed the Task Force, together with PSEG Long Island, to implement the Task Force Recommendations, including the creation of Implementation Plans. At today's Special Meeting, by separate resolution, the Board has considered certain of the Implementation Plans.

The November Resolution also directed LIPA's CEO to conduct contingency planning for the termination of the Amended and Restated Operations Services Agreement ("OSA") and report to the Board on the results.

Discussion

Pursuant to the Board's direction as set forth in the November Resolution, LIPA's CEO and Staff developed the Phase I Analysis, which is set forth herein as **Exhibit "B"**. This Phase I Analysis is the first in a series of reports detailing options to improve the management of LIPA's assets. LIPA has conducted similar analyses on at least four prior occasions -- in 1998, 2005, 2011, and 2013. The Phase I Analysis studies three potential alternatives – Privatization, the Single-Partner Municipal Model (i.e. the current model), and Municipal Management.

As more fully set forth in the Phase I Analysis, the choice of private or public ownership is clear – public ownership saves customers considerable money due to lower financing costs, exemption from corporate taxes, and access to federal disaster recovery grants. Privatization would raise Long Island customer bills by approximately $32 per month for a typical residential customer.

The Phase I Analysis describes reforms to the Single-Partner Municipal Model that would provide better alignment between the Service Provider and LIPA, ensure greater accountability and responsiveness to Long Island customers, and minimize principal-agent risks. These reforms could be accomplished by amending the OSA contract with PSEG Long Island or by seeking a new Service Provider.

Finally, the Phase I Analysis examines the cost of replicating the existing structure of ServCo (the service company operated by PSEG Long Island on LIPA's behalf), instead managed by LIPA. The Municipal Management model would result in savings of $155 to $215 million over the remaining 5-year term of the OSA contract and up to $815 million if that contract is extended for an additional eight years, per its terms.

Recommendation

The issues identified by the Task Force's investigation, as well as the DPS' separate investigation, remain urgent.

The Phase I Analysis recommends that the Board forgo expending further limited staff time and funds developing the privatization alternative due to its higher cost. During the period that LIPA studies privatization, it is also unable to make the necessary representations about governmental ownership of facilities to borrow in the tax-exempt bond market on a long-term basis or to take advantage of currently low interest rates to refinance outstanding bonds for savings.

The Phase I Analysis recommends that LIPA Staff continue to develop the Single-Partner Municipal and Municipal Management alternatives in a Phase II Analysis to be presented to the Board no later than March 31, 2021. This Phase II Analysis would include the results of LIPA's re-negotiation of its OSA contract with PSEG Long Island, if any.

The Phase I Analysis and the Board's consideration of the accompanying Resolution is for planning purposes only.

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

Attachments

Exhibit "A" Resolution
Exhibit "B" Phase I Options Analysis

Exhibit "A"

RESOLUTION ADOPTING THE ISAIAS TASK FORCE PHASE 1 OPTIONS ANALYSIS

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

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

WHEREAS, pursuant to Section 4.4(16), Rights and Responsibilities of LIPA, of the Amended and Restated Operations Services Agreement ("OSA"), LIPA, in part, has the right to "make recommendations to the Service Provider, in each case as may be reasonably necessary or appropriate to perform LIPA's oversight responsibilities and obligations with respect to the provision of Operations Services under this Agreement and as may otherwise be necessary or appropriate to comply with LIPA's legal, contractual and fiduciary obligations. . ."; and

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

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

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

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

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

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

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

WHEREAS, on December 18, LIPA's Chief Executive Officer delivered to the Board the Phase I Options Analysis (the "Phase I Analysis"); and

WHEREAS, the Phase I Analysis, determined that public ownership of the electric utility reduces Long Island customer bills by approximately 20 percent; and

WHEREAS, the Phase I Analysis considers, the Single-Provider Municipal model (either under a re-negotiated OSA or with another provider); and the Municipal Management model under LIPA management, with selected services sourced to private sector partners; and

WHEREAS, contemporaneous with the adoption of this Resolution, by separate resolution, the Board has already adopted certain of the Implementation Plans; and

WHEREAS, the Phase I Analysis and the Board's consideration of this Resolution is for planning purposes only.

NOW, THEREFORE, BE IT RESOLVED, the Board hereby adopts the Phase I Analysis; and

BE IT FURTHER RESOLVED, the Board finds that privatization is too costly for Long Island and Rockaways electric customers to merit investing additional staff time and funds to further develop the alternative; and

BE IT FURTHER RESOLVED, the Board hereby directs LIPA's CEO to further develop the Single-Provider Municipal model and Municipal Management model, as more specifically described in the Phase I Analysis, and report back to the Board in a Phase II Analysis Report no later than March 31, 2021.

Dated: December 16, 2020

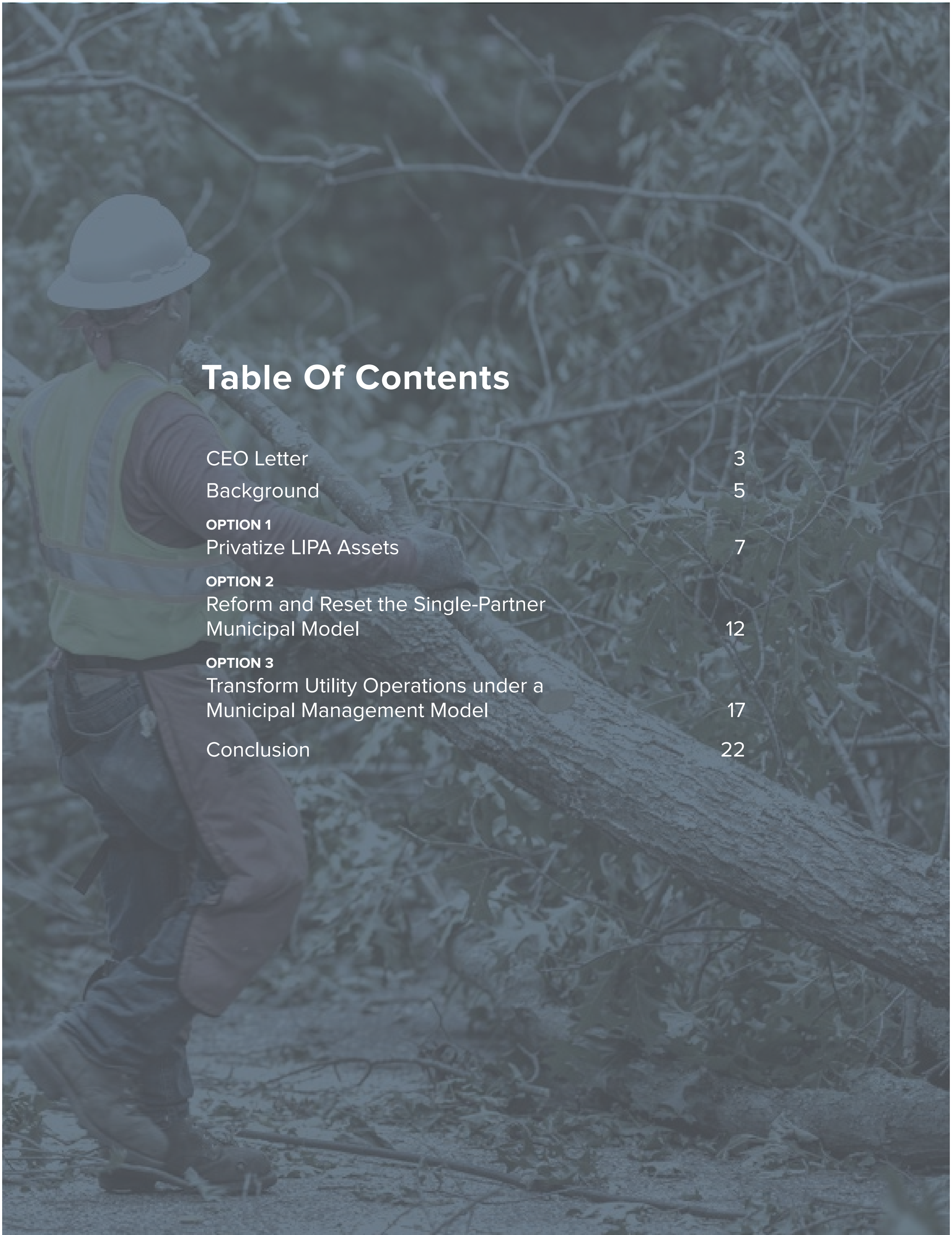
PHASE I REPORT

Options Analysis for the Management of LIPA Assets

Long Island Power Authority

For the Long Island Power Authority Board of Trustees

December 16, 2020



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CEO LETTER

Dear Customers and Stakeholders,

The LIPA Board of Trustees has a Vision for a Clean, Lean, and Customer-First utility for Long Island and the Rockaways. **The Board expects LIPA to deliver exceptional results**, including:

- **Outstanding customer satisfaction**, within the top 25 percent of utilities nationwide, as measured by a third party;
- A **highly reliable electric grid**, with better than 99.99 percent reliability;
- A transition to a **clean, carbon-free electric grid** by 2040; and
- The **lowest possible cost**, with rates at or below neighboring utilities in the New York metropolitan area.

In 2014, LIPA embarked on a new contract with a neighboring utility that would maintain an experienced, dedicated management team, located on Long Island, to deliver first-class service to LIPA's customers. In exchange, **LIPA has paid PSEG Long Island $469 million for management services over the past seven years**.

For nearly a half billion dollars, excellence was expected. Instead, following Tropical Storm Isaias in August, LIPA uncovered inattentive, unaccountable management that was not forthcoming about problems before, during, and after the storm. **In fact, LIPA's investigation identified that systemic management shortcomings were the root cause of PSEG Long Island's failures during the storm**.

On November 18, the LIPA Board of Trustees ordered PSEG Long Island to begin immediately implementing nearly 100 recommendations from LIPA's Isaias Task Force (Task Force) to improve operations and storm restoration. But the most significant recommendation was to **fundamentally change the way LIPA's assets are managed**. The Board, along with the New York Department of Public Service (DPS), asked LIPA staff to evaluate:

- Terminating LIPA's contract with PSEG Long Island; or
- Re-negotiating that contract to alter PSEG Long Island's management structure and incentives to provide alignment and accountability for LIPA's operations.

At its November meeting, the Board asked for an analysis of LIPA's alternatives. This report is the first phase of that analysis. **LIPA has attractive options, including one that could save customers $155 to $215 million over the remaining five years of LIPA's contract with PSEG Long Island and up to $815 million if that contract were extended, per its terms, for an additional eight years.**

The question facing the Board of Trustees is one of quality, price, and risk. Will a reformed relationship with PSEG Long Island deliver sufficient value to merit the premium LIPA pays for PSEG Long Island management? Or would these funds be better spent in customer-facing improvements to the electric grid that enhance service quality and reliability?

Let's be clear – we're asking PSEG Long Island to re-compete for LIPA's business and put its best foot forward. If PSEG Long Island wishes to continue as LIPA's Service Provider, the company needs to demonstrate how it will provide value commensurate with its management fees.

There are no perfect contracts. It is impossible to anticipate all the needs and changing circumstances that may arise over time. **That's why the most important component of any business partnership is the commitment**

by the parties to make the relationship work each day. Good partners are open and honest about business problems and straightforward in addressing issues as they arise.

Like a marriage, it is simply more important to have the right partner than the right contract. The right partner can make any contract work, and the wrong partner will prove disappointing even under the best of circumstances.

That means we are not just asking PSEG Long Island to re-compete for LIPA's business today, but to compete for it every day and truly be a partner to LIPA and the electric customers of Long Island and the Rockaways. The choice facing the Board is a continual option – one that can be revisited at any time in the pursuit of excellence for our customers.

We look forward to reviewing PSEG Long Island's best proposal and seeing demonstrated progress in addressing the nearly 100 recommendations adopted by the Board on November 18. Simultaneously, we will continue to pursue other alternatives to our relationship with PSEG Long Island for the Board's consideration.

Time is of the essence in fixing the issues identified by LIPA's Task Force investigation. We need to go well beyond the utility basics that were lacking during the storm to fulfill the Board's Vision for a best-in-class utility for our customer-owners.

Thomas Falcone

December 16, 2020

BACKGROUND

On November 18, 2020, LIPA's Isaias Task Force issued a 90-Day Interim Report to the LIPA Board of Trustees, elected officials, and stakeholders concluding that, based on extensive analysis, **PSEG Long Island mismanagement was the root cause of its poor response to Tropical Storm Isaias**.

In response, LIPA's Board of Trustees adopted nearly 100 recommendations from the 30-Day and 90-Day Task Force Reports to improve PSEG Long Island's operations and storm response. **The Task Force's main recommendation was to change the way LIPA's assets are managed to provide greater alignment and accountability to Long Island operations**.

The purpose of this report is to present to the LIPA Board and stakeholders an initial framing and analysis of the range of possible restructuring options for management of LIPA's assets. The recommendations will be further refined and developed and, to a degree, depend on the outcome of negotiations with PSEG Long Island. **A final report will be presented to the Board of Trustees no later than March 2021** reflecting the best available terms that PSEG Long Island has offered for a renegotiated Operations Services Agreement (OSA) contract as of that time, as well as a comparison of those terms to other alternatives available to LIPA.

The options considered in this report are summarized below and depicted in Figure 1.

- **Option 1: Transfer LIPA's Assets to a Private Utility** – This would require the sale of LIPA's assets to an existing investor-owned utility (IOU) or spin-off of an independent self-managed LIPA to private investors.
- **Option 2: Reform or Reset the Single-Partner Municipal Model**. There are several paths to modify this Public-Private Partnership (P3) model:
    A. Change the OSA with PSEG Long Island to deliver better results for LIPA's customers and greater assurance that PSEG Long Island is focused on Long Island's interests.
    B. Forge a new contract with another P3 partner that may or may not be an IOU.
- **Option 3: Transform Operations Under a Municipal Management Model** – This would require that LIPA end the current contract with PSEG Long Island for utility management and PSEG Long Island's ServCo subsidiary becomes a direct subsidiary of LIPA, as is permitted under the OSA. LIPA would then be fully responsible for utility operations but would also engage private sector partners to co-source or contract selected activities (e.g. information technology (IT), business services, etc.) to leverage economies of scale, best-in-class knowledge, ideas, and operational excellence.

The choice of capital structure – private or public ownership – is a financing decision. However, the selection of sourcing models in Options 2 and 3 are best understood as a continuous spectrum of opportunities. For example, LIPA could selectively rebid certain services provided by PSEG Long Island in Option 2 to other providers while maintaining core responsibilities with a single provider or could take responsibility for core utility operations in Option 3 but selectively source activities using third parties.

This continuum gives LIPA a unique opportunity to blend municipal and private-sector participation in an organization that is focused on serving the interests of Long Island electric customers. Nevertheless, each of the options have unique properties that are worth exploring. Figure 1 highlights the attributes of each alternative under consideration.

FIGURE 1:
Overview of Structural Options

Private Ownership

1. Privatize LIPA

- Sale of LIPA's assets to a private, investor-owned utility
- Higher financing costs, greater tax burden, and ineligibility for federal disaster grants would either raise customer bills by $32 per month or require unrealistic levels of synergy savings and service cuts

Public Ownership

2. Reset the Single Partner Municipal Model

"Smarter Single Source"

- Integrate lessons learned from the PSEG Long Island experience
- Stronger contractual protections and the ability to unbundle parts of the contract away from the Service Provider
- Service Provider subject to LIPA Board policy and directives and more granular Service Level Agreements and performance metrics

3. Bring Operations under a Municipal Management Model

"Integrated Services"

- ServCo becomes a direct LIPA subsidiary with 2,500 employees
- LIPA plays an active management role and acts as the integrator of services, aligning incentives and accountability

Sourcing Continuum

Reform the Contract with PSEG	*Terminate Contract and Seek New Partner*	*Municipal Management with Selective Sourcing*
• Reform the contract and reset the relationship with PSEG Long Island	• Reset the relationship with a different partner that is better equipped to deliver	• Core strategic functions are managed in-house • LIPA outsources or co-sources select non-core functions based on tradeoffs of benefits, costs, and risks

OPTION 1

Privatize LIPA Assets

Long Island's electric service was originally provided by an IOU. LIPA purchased the privately-owned Long Island Lighting Company (LILCO) in 1998. The purpose of that transaction was to access the lower financing costs available to a public power utility. The transaction resulted in a 20 percent reduction in customer bills.

Since then, LIPA has analyzed and reconsidered privatization three times – in 2005, 2011, and 2013. In each instance, LIPA rejected the privatization option due to the impact on cost for electric customers. As part of our due diligence, **LIPA staff revisited the privatization option a fifth time and again finds no evidence that would change the conclusion that privatization would significantly raise customer bills**. The rationale to continue as a public authority is familiar and straightforward and echoed in other large public power utilities who have explored privatization alternatives in recent years and decided to remain public.

Public ownership reduces Long Island customer bills by an estimated $32 per month for a typical residential customer. Conversion into a private IOU would significantly raise financing costs, which would ultimately be passed on to customers in the form of higher bills or reduced investments in customer satisfaction, reliability, and clean energy.

LIPA's Lower Cost of Capital

Utilities are heavy asset businesses, and the cost of capital is a significant component of the cost to customers. LIPA's capital, projected to be $10.3 billion in 2022, is 89 percent financed by tax-exempt debt capital of $9.1 billion. The remainder is deferred grants and retained customer funds (i.e. equity). LIPA's interest cost is expected to be 3.87 percent in 2022, as shown in Figure 2. As a public power utility, all LIPA funds are retained and reinvested in the electric grid. By its nonprofit nature, there are no dividend payments to equity investors and no corporate taxes, which are significant cost savings compared to private utilities.

FIGURE 2:
LIPA's Cost of Capital

LONG ISLAND POWER AUTHORITY
PROJECTED CAPITAL STRUCTURE & INTEREST COST FOR 2022
(millions of dollars)

Projected Debt	$ 9,146
Net Equity Position	$ 1,206
Total Capital	$ 10,353
LIPA's Interest Expense	$ 354
LIPA's Debt Cost	**3.87%**

By comparison, Con Edison, a privately-owned New York electric utility, has a cost of capital that is twice LIPA's interest expense (see Figure 3). This simple comparison suggests that if privatized, LIPA's cost of capital would more than double.

FIGURE 3:
Cost of Capital for a New York IOU
(Con Edison)

	Capital Share	Approved Rate
Deposits	1.1%	2.45%
Debt	50.9%	4.63%
Common Equity	48.0%	8.80%
Total Capital	100.0%	6.61%
Income Tax Adder	26.1%	1.49%
Cost of Capital		**8.10%**

Applying the higher cost of capital of private utilities to LIPA, we estimate that public ownership saves customers roughly $447 million per year in financing costs (see Figure 4). Putting it another way, were LIPA to privatize, electricity costs to consumers would go up by nearly half-a-billion dollars just for the increased financing costs. This is the same reason LIPA bought LILCO in 1998 – to secure these savings for customers.

FIGURE 4:
LIPA's Financing Savings as a Public Power Utility

COMPARISON OF PUBLIC UTILITY INTEREST EXPENSE VERSUS PRIVATE UTILITY COST OF CAPITAL
(2022 projection)

All Dollars in Millions	
LIPA Pro-Forma Rate Base	$9,886
IOU Cost of Money	8.10%
LIPA Cost at IOU Cost of Money	$801
LIPA Actual Interest Expense	$354
Financing Savings from Public Ownership	**$447**

LIPA's Access to Federal Disaster Recovery Grants

In addition to benefiting from lower financing costs, **LIPA is also eligible for federal disaster recovery and storm hardening grants that are not available to privately owned utilities**.[1] These grants result in **significant savings** to customers.

Over the past 10 years, **LIPA has received over $1.7 billion dollars in disaster recovery grants** from the Federal Emergency Management Agency (FEMA) and other sources, **averaging $160 million per year** (see Figure 5). This level of subsidy would not be available to a privately-owned LIPA and would have to be recouped by higher cost to customers.

FIGURE 5:
LIPA Federal Disaster Recovery and Storm Hardening Grant Proceeds

Year	Significant Storm(s)	Grant Proceeds (in millions)
2010	March Nor'easter	$51
2010	Winter Storm	$6
2011	Hurricane Irene	$155
2012	Superstorm Sandy	$1,314
2013	Winter Storm Nemo	$11
2017	March Blizzard – Stella	$4
2020	Tropical Storm Isaias	$220
	Average of $160 million per year	**$1,760**

Higher Estimated Cost for an Average Residential Customer

Another way to look at the impact of the higher cost of capital and loss of federal grants of a private utility is to observe its effect on customer bills. **For an average residential customer, the additional cost of privatization is an estimated $32 per month in 2022 and would grow over time**.

Privatization's Potential Synergies are Insufficient to Offset the Higher Costs

There are benefits to accessing scale economies and best practices available from other firms, which are often referred to as "synergies." These synergies are sometimes posited to be more valuable than the lower financing costs of public ownership.

Figure 6 shows the pool of expenses where synergies might be possible. Certain categories of expense do not lend themselves to synergies. Power supply costs, taxes, and payment-in-lieu-of-taxes (PILOTs) will generally be similar regardless of public or private ownership. Meanwhile, other categories of cost, such as financing costs, and storm recovery costs, will be higher under private ownership, as discussed previously.

[1] FEMA grants to pay for restoration after a natural disaster, and to mitigate recurring damage to infrastructure, are available only to states, their political subdivisions such as LIPA, and other tribal, governmental, or not-for-profit entities. See Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended. 42 U.S.C. §§ 5121 et seq.

Excluding these categories of cost, there remain $641 million in expenses available for potential synergy benefits – principally what is referred to as Operations and Maintenance expenses of PSEG Long Island and LIPA. **Clearly, it is unrealistic to postulate $450 to $600 million of expense reductions to offset the higher cost of capital and loss of federal disaster recovery grants from an expense pool of only $641 million.**

FIGURE 6:
Synergies Will Not Offset Higher Financing Costs and Loss of Federal Grants

LIPA Budget (in millions) less costs not subject to synergies	$3,754
Power Supply (electricity and commodity)	$1,776
Financing	$858
Taxes and PILOTS	$340
Pensions and Other Managed Expenses	$69
Storm Recovery	$70
Pool of Expenses Available for Synergies	**$641**

Public Sector Utilities Can Access Private Sector Efficiencies

There are multiple ways for a public utility to access the benefits of scale and the best practices of the private sector that are unrelated to ownership structure. After all, both private and public sector firms hire experts and third parties for this very purpose.

The choice of capital structure – private or public ownership – is a financing decision that can be divorced from the ability to access scale and private sector efficiencies.

Privatization Has Significant Transaction Costs

Privatization would require appropriate legislative authority, and the transaction costs would be significant. These costs are not captured in this analysis but add to the unfavorable economics of this alternative. For example, **it would cost an estimated $1.45 billion premium to early retire tax-exempt bonds issued through both LIPA and the Utility Debt Securitization Authority**, which would be required under a change in ownership, as well as additional costs to issue equity or sell LIPA to investors after a change of ownership. These transaction costs contribute no value to customers.

Even exploring privatization is costly in terms of the advisers and legal experts that would need to be retained and the significant investment of time and management attention. **Transaction costs for a recently failed evaluation of privatization by another public power utility was estimated to cost in excess of $13 million**.[2]

[2] Monroe, Nate, et al. (2020, August 31). Money & Power: The secret origins – and public collapse – of the campaign to privatize Jacksonville public utility JEA. Florida Times-Union. Retrieved from https://www.jacksonville.com.

In addition, even if privatization is ultimately abandoned, while it is being considered, LIPA would be unable to make the necessary representations about governmental ownership to issue new tax-exempt bonds or refinance already outstanding tax-exempt bonds on a long-term basis. This would impose higher costs on customers and preclude LIPA from refinancing bonds in today's low interest rate environment to reduce costs and save customers money.

Due to the high cost and limited identifiable benefit, LIPA staff recommends that the Board of Trustees focus on the remaining alternatives that show greater promise and that further detailed evaluation of privatization not be pursued.

OPTION 2

Reform and Reset the Single-Partner Municipal Model

The promise of LIPA's business partnership with PSEG Long Island was scale – that operating LIPA's assets jointly with a neighboring utility would deliver best practices and cost savings that more than made up for the PSEG profits built into the agreement. The thought was that it was worth paying a premium to a neighboring utility for outstanding management.

However, **divorcing control from ownership also creates problems**. **The agent makes business decisions on behalf of the asset owner but does not ultimately own the outcomes**. "Nobody ever washed a rental car," as the saying goes.

Every agreement to outsource management of assets to an agent must assess whether the benefits outweigh the risks, as well as evaluate the controls necessary to minimize the potential for misaligned incentives. Every such agreement should also be periodically revisited to ensure that the intended benefits are being realized.

The History of the Single-Partner Municipal Model

In 1998, LIPA purchased the electric transmission and distribution (T&D) assets of LILCO. The power plants and gas utility assets of LILCO were merged with Brooklyn Union Gas, forming KeySpan Corporation, which in 2006 became part of National Grid USA. As part of that 1998 transaction, LIPA contracted with then KeySpan to operate LIPA's T&D system day-to-day. At the time, LIPA had less than a dozen employees and the transaction was primarily a financing arrangement – with lower-cost financing reducing customer bills but few changes in day-to-day operations.

In 2010 and 2011, with the pending expiration of the National Grid management contract, the LIPA Board of Trustees reconsidered the business structure, which was reviewed yet again in 2013 after Superstorm Sandy.

Those evaluations recognized various principal-agent problems. For example, the October 2011 study by **the Brattle Group found "a third-party provider of ServCo [i.e., the manager of LIPA's assets] inherently faces somewhat limited and under-specified incentives to serve LIPA's interests unequivocally (i.e., a "principal-agent problem")**."

The OSA gave wide operational discretion to PSEG Long Island based on three critical expectations:

- That PSEG would deploy high-quality operational and technical expertise to serve LIPA and its customers, employees, and other stakeholders on time and as needed;
- That partnering with an established industry player would generate significant operational and efficiency benefits – resulting from PSEG's scale and reserve capacity; and
- That PSEG's name on the truck (accountability to the customer) and Balanced Scorecard (i.e., performance incentives) would align the Service Provider with LIPA's interest as the asset owner and minimize principal-agent issues.

The OSA provided LIPA with audit and oversight rights but few other controls to minimize agency risks, such as detailed Service Level Agreements (SLAs) or the right to pre-approve budgetary changes and key decisions.

PSEG Long Island's Performance Since 2014

Since 2014, Long Island electric utility operations have improved in many ways:

- Increased customer satisfaction by 42 percent;
- Improved system-wide reliability by 35 percent;
- Hardened over 1,000 miles of Long Island's electric grid;
- Procured over 1,000 megawatts of clean energy; and
- Achieved four upgrades of LIPA's credit ratings.

These accomplishments are real and PSEG Long Island deserves credit but not all of it. Since 2016, the LIPA Board of Trustees has invested over $4.2 billion in Long Island's electric grid – a record amount and three times the annual level of investment under the prior National Grid management contract. **Improving reliability and customer satisfaction in the face of unprecedented investment is not necessarily evidence that PSEG Long Island has delivered outstanding management of LIPA's assets**.

The Isaias Task Force's 90-Day Report revealed widespread, systematic, and serious deficiencies in operational and management performance. **The failures during Isaias were preventable, not aberrations. They were management failures**. When customer needs were most acute, nearly half the customers were left underserved. When LIPA needed PSEG to activate its reserve capacities in New Jersey, that reserve capacity proved unavailable. And since Isaias, PSEG Long Island's efforts to rectify the faulty IT and telephone systems have remained inadequate.

LIPA has also found that the incentive-based compensation intended to reduce agency risks had the unintended effect of encouraging "Balanced Scorecard Blinders" – the excessively narrow focus on a limited set of customer, operational, and financial metrics. The limited set of 27 metrics, which must be mutually agreed upon by LIPA and PSEG Long Island each year, has not proven to be a representative measure of the Service Provider's performance. PSEG Long Island provides LIPA with several dozen complex, disparate, and specialized services, and experience has demonstrated that **the Balanced Scorecard is simply too narrow to adequately capture the job the Service Provider has been hired to perform**.

These Balanced Scorecard Blinders were exacerbated by matrixed-management structures with Newark, New Jersey-based PSEG managers in charge of key operational areas (including the information technology that failed during the Isaias). **These managers have little accountability for Long Island operations and none to the LIPA Board of Trustees**.

The assumption that PSEG Long Island would be aligned with LIPA's interests because their name is on the trucks and their pay varies with Balanced Scorecard results proved to be wrong. The performance metrics are not sufficiently representative of the overall quality of management and the Service Provider demonstrably does not act in the owner's best interest in areas not regularly visible to customers.

Principal-Agent Problems Are Typical in Sourcing Agreements

Academics and analysts long ago identified the "principal-agent problem" where one entity entrusts another to carry out activities on its behalf. These arrangements inevitably fail unless the incentives and motivations of the agent are aligned with the best interests of the principal.

As described in Figure 7, **the academic literature identifies several broad categories of agency costs inherent to outsourcing agreements. The LIPA-PSEG contract signed in 2013 in retrospect was a high-trust arrangement with inadequate provisions for verification and course-correction**.

There is no perfect contract. A high-trust agreement could work with the right business partner. The right partner can make any contract work, and the wrong partner will prove disappointing even under the best of circumstances. However, in the current set up, LIPA has very limited ability to ensure appropriate and timely service to LIPA's customers and lacks contractual levers to proactively address root causes of failure before they occur. Meanwhile, **PSEG Long Island has disappointed as a partner and demonstrated that it should not be trusted with significant discretion without verification controls**.

FIGURE 7 :
Common Manifestations of Principal-Agent Problems[3]

- **Insufficient effort**. Shirking responsibilities, overly focusing on short-term results, or making decisions without adequate due diligence.
- **Self-dealing**. "Gold plating" without respect to cost to reduce the risk of the agent failing a contract standard or performance metric.
- **Entrenchment**. Making decisions that increase the cost to the owner to switch to a new provider, such as advertising their own brand, deploying proprietary or integrated information technology systems rather than "plug and play" equipment, or matrixing management responsibilities and functions in ways that are challenging to later untangle.
- **Poor Risk Management**. Taking risks the owner would not knowingly take, despite the fact that the responsibility and risk are ultimately the owner's and not the agent's.

To address the principal-agent problems highlighted by Tropical Storm Isaias, LIPA, as the principal, would have to have complete and timely access to information on what the agent is doing and this will require a drastically reformed OSA. LIPA would need the tools and capacity to ensure prompt course correction on the part of PSEG Long Island, or another provider, and to take meaningful and decisive corrective action if the agent fails to perform or fails to maintain readiness and reliability.

The 90-Day Isaias Task Force Report had numerous examples of the principal-agent problem. For example, on September 3, 2020, **a month after the storm, PSEG Long Island sent LIPA and the DPS a letter signed by a senior New Jersey executive that stated that the telephone and OMS systems that failed were repaired and stress-tested**. To quote from the letter:

- "PSEG Long Island **repaired the OMS** by rolling back to the previous version…"
- "PSEG Long Island performed a stress test scenario resulting in more than 1 million customers impacted… **results of the test include the ability for the system to handle over 1 million transactions with a success rate of 99%** and sub-second average transaction response times."
- "PSEG Long Island completed a stress test scenario of the Intrado HVCA Service [telephone system] on August 31, 2020. **The test successfully modeled over 168,000 calls over a 2-hour period**…"

[3] See Geis, George S., Business Outsourcing and the Agency Cost Problem

The Task Force's subsequent investigation found that the telephone and OMS systems were neither repaired nor adequately stress tested as of September 3 or even to this day. The 90-Day Report found:

- "PSEG Long Island has **not yet identified the root cause of the OMS failure**." (Id, p. 27).
- "OMS Version 5.5, which is currently deployed… **continues to display symptoms of instability**… Version 6.7, which is the latest version and currently being tested, **continues to fail various stress tests**." (Id, pg. 28).
- "PSEG Long Island's HVCA redesign effort has been slow and mired with false starts. Frequent back and forth with the various vendors, lack of clear objectives and requirements, and poor vendor management has dragged on since Isaias with still no new design executed that customers can confidently rely on in the event of another storm… **the most recent load and volume test that PSEG Long Island conducted failed part way through the test**." (90-day Report p. 18).

Moreover, **the cost to investigate PSEG Long Island's misleading September 3 representations was extremely high, amounting to hundreds of staff and consultant hours and millions of dollars** – all to monitor the performance of only two of the many IT systems PSEG Long Island maintains for LIPA.

Principal-agent problems are inherent in any outsourcing relationship. Now that Tropical Storm Isaias has put in high relief how these problems manifest in the LIPA-PSEG relationship, it remains to be seen whether both parties can work together in good faith to restructure the OSA contract to control agency risks and deliver value to Long Island customers. If this proves impossible, LIPA should move forward with another alternative.

Shared Corporate Services in the PSEG-LIPA Relationship Should Be Unbundled

LIPA has been unable to identify meaningful cost synergies from the shared services provided by PSEG from New Jersey, such as IT. From the perspective of LIPA management, **the quality of various shared corporate services has ranged between medium to low**, depending upon the function. For example, budgets, managed from Newark, are "numbers on a page" rather than strategic investment decisions supported by detailed work plans. Asset management, cited as deficient in both 2013 and 2018 management audits as well as a 2020 LIPA review, remains an ad-hoc maintenance program rather than a strategic program to manage the life-cycle cost of LIPA's large asset base. The Isaias Task Force has documented the many deficiencies in IT and emergency management through nearly 100 recommendations. In any case, **the inadequacies of these shared services, such as the IT that failed during Isaias, are unacceptable**.

Given the track record, it is abundantly clear that many management and corporate services should not be shared, and that mission-critical functions must be brought home from PSEG's New Jersey headquarters to Long Island.

The rationale justifying shared services was that managers, expertise, and special functions can be shared across organizations or divisions, reducing overall costs. **Given PSEG Long Island's failure to respond to and recover from Tropical Storm Isaias, the Isaias Task Force has found that most of this sharing simply does not work**.

The Path Forward to a Successful P3 Relationship

The LIPA Board of Trustees has mandated immediate implementation of nearly 100 specific recommendations from the Isaias Task Force to improve operations. While these operational improvements are implemented, on a parallel track, **LIPA needs to carefully determine what institutional architecture will best serve electric customers in the long run**. There are several important implications of continuing with a Single-Partner arrangement, whether with PSEG Long Island or another provider:

- **LIPA must establish far more rigorous and expansive metrics of performance, readiness, and reliability**, in many cases in the form of highly specific SLAs for each scope of services. These metrics will also need to be continuously monitored and evaluated by LIPA with significant penalties imposed if there is a failure to meet performance and readiness targets. Furthermore, LIPA needs to carefully re-evaluate reimbursable services (the so-called affiliate or shared services);
- In evaluating performance measures that are linked to PSEG Long Island's management incentive compensation, **qualitative measures** of performance and other controls must be included to limit agency risks and ensure accountability for the entirety of the scope of services provided;
- **PSEG Long Island management must abandon the current matrix management construct and be laser focused on Long Island**, providing best-in-class satisfaction, reliability, and clean energy;
- LIPA must not be forced to rely on the Service Provider to do everything. **The redesigned OSA must allow for independent procurement of various management and corporate services** ranging from IT, procurement, business services, and legal services. **In the event of poor performance, these services should be "unbundled" from the current contract and carved out to the best available provider.** Such unbundling, if pursued, must be carefully managed and designed to minimize coordination and transaction costs borne by LIPA, while at the same time protecting the rights and benefits enjoyed by workers under current union contracts. **A bundled contract of unrelated services awarded to a single service provider has the potiential to result in too little accountability for disparate and unrelated services**;
- The revised OSA must include additional controls to mitigate the types of principal-agent risks discussed earlier. These controls should include: (a) **strengthening contract termination triggers,** (b) **strengthening contract provisions to prevent high switching costs from one service provider to another,** (c) **enhancing the LIPA Board's perogative to compel PSEG Long Island's compliance with Board Policies and directives, and** (d) **larger variable compensation and penalties** (for example, 50 percent or more of compensation);
- **PSEG Long Island must become fully transparent.** For the contract to be successful, a relationship of trust, reinforced by verification, must prevail; and
- LIPA must ensure adequate staff and technical expertise to provide oversight and direction.

It will be critical for LIPA and PSEG Long Island to diligently work toward resetting their relationship, including new contractual terms. **A new contract is necessary but not sufficient to ensure mutual success in this path forward**. Contracts, by their nature, are necessarily incomplete and contractual provisions will not address every type of agency risk. Major steps will have to be taken to re-establish trust.

The first step will be for both parties to prioritize the "reset" and present PSEG Long Island's best contract terms to the LIPA Board and stakeholders by March 2021. These reset contract terms can then be evaluated relative to LIPA's best alternative to the Single-Partner model.

OPTION 3

Transform Utility Operations under a Municipal Management Model

LIPA is a municipal utility that has outsourced most of its business functions in a bundled contract to a single Service Provider, PSEG Long Island. Figure 8 includes a selected list of services that LIPA has retained either PSEG Long Island or other firms to provide. As shown in the table, in some cases LIPA has outsourced a service to PSEG Long Island, which PSEG Long Island has then in turn retained another firm to provide, in whole or in part.

FIGURE 8:
Selected Scopes of Service Outsourced By LIPA

Services LIPA Has Outsourced to PSEG Long Island	Services PSEG Long Island Has In Turn Retained Other Firms, In Whole or Part, to Provide	Services LIPA Sourced to Other Providers
T&D System Operations	Engineering	Power Plant Development
Power Supply Planning	Capital Construction	Power Plant Operations
Information Technology*	Tree Trimming	
Business Services*	Energy Efficiency Programs	
Call Centers	Legal Services	
Customer Offices	Debt Collection	
Customer Billing and Payment	Advertising and Marketing	
Government Relations	Commodity Hedging Advisory	
Communications	Insurance Brokerage	
Fuel Procurement		
Energy Market Trading		
Procurement		
Facilities		
Fleet		
Records Management		
Human Resources		

* At points these services were outsourced by PSEG Long Island to other providers.

The key question is what are the benefits and costs of bundling most of LIPA's business functions into a single contract?

The benefit of bundling disparate services, rather than using multiple firms, is responsibility for the end-to-end service from a single provider. For example, under the OSA, PSEG Long Island is the name and face to the customer. At the time the contract was entered into, this was perceived as a significant means to encourage accountability to Long Island electric customers.

The cost of having a single service provider is that rarely is that provider the best-in-class or lowest-cost firm for all services. Bundling into a single contract, by definition, means accepting that the provider will do some things well and other things less well. It is essentially a view that the sum is greater than the parts.

Meanwhile, having a single provider of such disparate services as IT and tree trimming significantly raises the entrenchment of that provider – the cost of switching is much higher, and the accountability for individual services is much lower.

Notably, bundling is not required to access scale and efficiency benefits. LIPA could, for example, retain certain functions in house, while hiring the best-in-class firms to manage each of IT, human resources, and facilities. Specialized firms exist to provide each of these services, and many companies use these firms, providing access to scale benefits, private sector efficiencies, and best-in-class techniques.

The Municipal Management Option

The municipal management model is an alternative to LIPA's present arrangement with PSEG Long Island. **The main change in the municipal model is that the 18 management positions now provided by PSEG Long Island would be employed by LIPA. Additionally, the ServCo subsidiary that now employs 2,500 employees dedicated to serving LIPA would become a LIPA subsidiary under LIPA management**.

In this model, **while all strategic and of core functions would be carried out by LIPA's own management and ServCo employees, LIPA could also selectively and flexibly assemble and deploy best-in-class expertise from the private sector when and where required**. LIPA's line of oversight and management of key external providers would be direct and proactive with clearly specified accountabilities and standards – and commensurate rewards and penalties depending on performance. Thus, there would be a healthy and productive role for the private sector.

The key difference is that products and services that are now contracted out to one provider would be competitively contracted to appropriate providers based on their specific and relevant domain expertise. The responsibility to optimize vendor quality and alignment would rest with LIPA management, who would be held accountable for the performance of the system as a whole by the LIPA Board of Trustees. Competitive subcontracting can still allow a significant percentage of the workload to be performed by the private sector, but this will be determined from the vantage point of how to best serve LIPA and its customers.

LIPA would need to establish and model a collaborative, transparent, and problem-solving culture and management protocols that all key private sector partners would be expected to adhere to. This would produce a more agile and responsive management and service delivery infrastructure, which would improve results for customers.

Another important distinction between this option and the current single-provider model is the nature, scope and depth of governance involved. Given its direct accountability for operations, LIPA would be equipped to be far more transparent and responsive regarding its performance, contracts, and finances than if all operations remains contracted out to a single entity that in turn subcontracts out large chunks of work.

Adopting this option would mean terminating the OSA with PSEG and bringing the ultimate accountability for performance directly and squarely to LIPA management. **Rather than paying PSEG Long Island $77 million in management fees and $20 million in affiliate service charges annually, the LIPA management team would design, integrate, and bear the costs of the entire delivery value chain.** LIPA would also ensure that utility functions – irrespective of whether carried out in-house or by contractors – are delivered seamlessly, cost-efficiently, and in the best interest of customers. As illustrated in Figures 10 and 11, **this model has been successfully executed by numerous public power and cooperative utilities, many of whom are ranked among the best utilities in the country for customer satisfaction and reliability**.

Transitioning to a Municipal Management Model

The 2013 agreement with PSEG Long Island was designed to preserve the option to municipalize LIPA operations at a later date if it was deemed more suitable. LIPA has the flexibility to terminate the OSA with minimal disruption to operations. The Authority already owns the T&D assets that PSEG Long Island has been managing, and there are mechanisms in place to bring the 2,500 dedicated ServCo employees under LIPA's direct management with minimal disruption to operations. During such a transition, LIPA would need to **maintain employment security commitments and employee/retiree benefits under prevailing union contracts**. This was done by LIPA during the transition from National Grid to PSEG Long Island in 2014, and can be done again.

An orderly transfer of the 2,500 ServCo employees from PSEG Long Island management to LIPA management would need to be carefully executed. **Throughout its history LIPA has benefited from a strong, professional, and hard-working Servco workforce. A LIPA with municipalized operations would vigorously invest in its people in order to develop and reinforce the skills required of a highly successful 21st century utility**.

Transitioning to a fully integrated LIPA would require appropriate legislative authority and an expeditious but managed transition of T&D operations from PSEG Long Island to a reorganized LIPA. The legislative changes would need to occur in the form of amendments to LIPA's enabling statute. Such legislative changes would be preceded by consultations with and through the support of key local, regional, and state stakeholders including the Governor, the State Legislature, and labor unions.

Furthermore, the public has a right to a clear and transparent process. LIPA's transition plan and timetable would need to be expeditious, based on a clear identification of functions where transition would be difficult and thus require careful planning and oversight. One such area would be the decoupling of certain IT systems from PSEG Long Island.

LIPA staff has also considered at a high level some of the other organizational prerequisites for managing the transition and assuming the operational responsibilities implied in this model. **The current LIPA management organization would need to be reinforced by adding approximately a dozen management positions. Additionally, ServCo would need to add approximately 20 to 30 full-time equivalent positions to provide the shared service functions currently based in PSEG in New Jersey**. Recruiting and on-boarding the best mix of talent and keeping the organization sufficiently lean and coherent would be crucial determinants of success.

To mitigate transition risks, LIPA would need to develop ex-ante a strategy that clearly maps out what functions it would carry out in-house and what will be co-sourced or outsourced to third party management, while protecting the rights and benefits enjoyed by workers under current union contracts. To ensure aligned performance, LIPA would also need to specify sufficiently robust and verifiable performance metrics for each domain where outside partners are brought in. Clear management and course-correction mechanisms would also need to be designed to guide, illuminate, and expedite progress.

The LIPA Board of Trustees would need to play an important role in assuring the ultimate delivery of value to LIPA's customers, including meeting high customer satisfaction, reliability, and clean energy goals at affordable rates.

To test the financial and operational viability of the municipalization option, LIPA staff, with the assistance of outside consultants, has modeled the financial scenarios for such a transition. There are various uncertainties that need to be further investigated and validated, but **the bottom line finding is that a fully integrated LIPA is financially attractive**. These initial analytical results are summarized below.

Financial Impact of the Municipal Management Model

Based on a preliminary cost analysis, we expect **annual cost savings of $65 to $75 million under municipalization compared to the existing OSA contract** (see Figure 9). These savings primarily reflect elimination of the nearly $80 million per year PSEG Long Island management fee, approximately 60 percent of which is treated as an operating expense with the remainder capitalized. These management fees currently cover the costs of approximately 18 management positions in the PSEG Long Island management company.

Additionally, PSEG's New Jersey headquarters provides staff and systems support within IT, Human Resources, Procurement, Treasury, Legal, and other functional areas. **There would be savings of approximately $20 million per year of PSEG affiliate charges for these shared services, although these savings would be absorbed by hiring new ServCo employees or third parties to provide similar services**.

In total, we estimate approximately $3 to $6 million in additional annual labor costs.

We do not currently expect a significant change to any other operating expenses under a municipal model. Labor-related costs will directly transfer along with the ServCo staff. **With legislation, we believe there exist viable options to transfer existing ServCo employee benefits and retirement plans unchanged without significant additional cost to LIPA customers**.

A significant portion of O&M costs are non-labor, pass-through expenses (e.g. materials, services). To date, PSEG Long Island has not demonstrated any significant synergies within these cost categories, and we believe that LIPA operates on a sufficiently large scale to secure similar pricing on key material and service expenditures. In fact, **there may prove to be savings in non-labor costs as a structure with stronger LIPA oversight will encourage better cost performance than does the current set up with PSEG Long Island as an independent provider with full cost pass through to LIPA**.

We estimate that LIPA could incur **$85 million to $105 million in one-time transition costs** as part of a move to municipalization. OSA termination fees ($61 million)[4] and IT systems migration ($15 million) account for the vast majority of transition costs. The estimate includes additional costs ($17 million) for PSEG transition support, employee transition, rebranding, legal services, and other organizational transition costs.

The projected savings under municipalization are significant. The estimated reductions to LIPA's annual revenue and borrowing requirements, when compared to transition costs, imply a payoff period from municipalization of less than a year and a half. Assuming a transition in 2022, **municipalization could save**

[4] The termination fee is not owed to PSEG Long Island if it breached material obligations in the OSA, as we believe they have, so this amount is likely to be smaller.

LIPA customers in the range of $155 million to $215 million net of transition costs through the 2025 termination of the OSA contract. The OSA contains an 8-year extension. If such extension were exercised, **the total savings between 2022 and 2032 would be in the range of $675 to $815 million**.

The question facing the Board of Trustees is one of quality, price, and risk. Will a reformed OSA contract deliver sufficient value to merit the $675 to $815 million to be paid as a premium for PSEG Long Island management through 2032? Or would these funds be better deployed in customer-facing improvements to the electric grid to enhance service quality, reliability, and clean energy? The Board's direction has been to fully explore both options so as to make a comparison possible.

FIGURE 9:

Change in Annual Revenue Requirements under Municipal Management Model vs. PSEG Long Island Contract

Change in Annual Revenue Requirements under Municipal Model
US $ millions

	Base Case	Potential Range
Eliminate Management Fee (Operating expense)	-$47.9	(-$48.4 to -$46.5)
Replace ManageCo and Shared Positions	$4.4	($3.1 to $6.2)
Eliminate Carrying Costs On Capitalized Mgmt. Fee	-$1.1	(-$1 to -$1.2)
Contingent Cost Increases (e.g. Medical Benefits)	$5.0	($3.0 to $7.0)
Total Change in Annual Revenue Requirements	**-$39.5**	**(-$43.3 to -$34.5)**

Change in Annual Borrowing Revenue Requirements under Municipal Model
US $ millions

	Base Case	Potential Range
Eliminate Capitalized Management Fee	**-$31.3**	**(-$31.6 to -$30.4)**

Change in Headcount

	Base Case	Potential Range
LIPA Management	12	
ServCo	22	
Total	**34**	**31 to 37**

Municipal Management Can Produce Strong Results

There are three predominant forms of ownership of electric utilities in the United States – private IOUs, public power utilities (owned by governmental entities), and customer-owned utilities (known as cooperatives or co-ops).

Public power utilities and co-ops fare as well or better than private sector utilities in the measures that customers care about – customer satisfaction and reliability (see Figures 10 and 11). **Public utilities also tend to be leaders in the transition to cleaner sources of energy.**

To our knowledge, LIPA is the only public power utility that utilizes the Single-Partner municipal model. As described earlier, that business model was a result of LIPA's original purchase of LILCO in 1998. Meanwhile, public power utilities under municipal management provide electric service to approximately 48 million customers or 14 percent of the nation's electricity consumers. Co-ops serve an additional 13 percent of electric customers. The balance of electric customers are served by IOUs.

The J.D. Power Electric Utility Residential Customer Satisfaction Study from 2019 includes the 142 largest electric utility brands across the United States and represents more than 100 million households. While 68 percent of the utilities in the survey are IOUs, **64 percent (23 utilities) of the top performing utilities for customer satisfaction (those in the top 25 percent) are public power utilities and co-ops. Meanwhile, 81 percent (29 utilities) of the worst performing utilities (those in the bottom 25 percent) are IOUs.**

Similarly, there are 184 utilities in the nation with more than 100,000 customers according to the U.S. Energy Information Administration. Each of these utilities reports the average number of minutes per year their customers are without power. While 68 percent of the utilities in this survey are IOUs, **57 percent (26 utilities) of the top performing utilities for reliability (top 25 percent) are public power utilities and co-ops, while 80 percent (37 utilities) the worst performing utilities (bottom 25 percent) are IOUs.**

FIGURE 10:
Public Sector Utilities Have High Customer Satisfaction
(# of utilities)

Source: J.D. Power Electric Utility Residential Customer Satisfaction Survey, 2019; publicly owned includes both municipal and cooperative utilities.

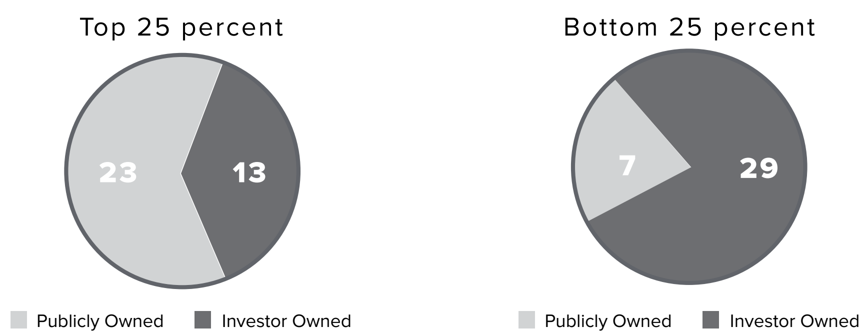
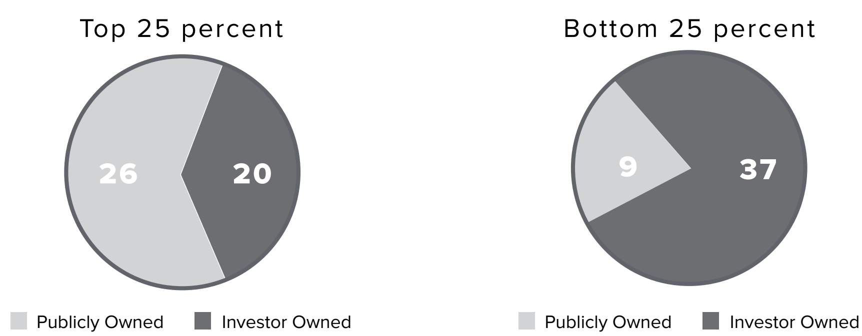


FIGURE 11:
Publicly Owned Utilities Have High Reliability
(# of utilities)

Source: U.S. Department of Energy, Energy Information Administration; utilities with greater than 100,000 customers; publicly owned includes both municipal and cooperative utilities.



Conclusion

The reform and reorganization of LIPA is currently moving forward in a two-stage process. The first stage is already underway: LIPA and PSEG Long Island are implementing the IT turnaround, the new Emergency Restoration Plan, and strengthening Long Island management, consistent with the nearly 100 recommendations adopted by the Board of Trustees at its November 18 meeting.

In the next stage, the LIPA Board of Trustees, stakeholders, and the State of New York will decide on the fundamental structure and governance of the reorganized LIPA. LIPA and PSEG Long Island will begin meeting to renegotiate the current OSA contract. **The best terms offered by PSEG Long Island will be presented to the LIPA Board and stakeholders, alongside an alternative plan, in March 2021**.

There are inherent risks or uncertainties involved in each of the options that will need to be mitigated. These issues will be explored in more depth in the next report.

The greatest risk is to continue the status quo – maintaining the current OSA contract and operational practices with PSEG Long Island despite their known weaknesses.

There are already compelling reasons for dispensing with Option 1 (Privatization) because even in the best of circumstances, it will not be possible to overcome the $500-$600 million of additional annual costs for financing and storm recovery.

For Option 2 (Single Partner Municipal), if a suitable agreement is forged with PSEG Long Island, there would remain some risks of performance failures that would need to be closely monitored. In pursuing a single partner other than PSEG Long Island, LIPA would have to consider whether a suitable partner is readily available, the lengthy procurement period, and the complexity of transition. Proposed terms resulting from a solicitation of a new partner would not be available for Board and stakeholder consideration for approximately a year.

In the case of Option 3 (Municipal Management), the most important risk is the timely recruitment of the new functional talent, and the smooth transition of ServCo employees, call centers, and other IT systems into a LIPA subsidiary.

Time is of the essence because the risk to Long Island customers still prevails. **LIPA and PSEG Long Island must make an earnest attempt to reach new OSA terms and reset the relationship by March 2021**. **That proposed contract can then be compared to the best alternative plan.**

Our preliminary estimates of the timeframe for each of these options is provided below in Figure 12.

FIGURE 12:
Estimated Timeframe for LIPA Transformation Options

Option	Timetable
Option 2A: Reset the Current Partnership with PSEG Long Island	6 to 9 months
Option 2B: Single Partner Model with a new Partner	24 to 30 months
Option 3: Municipal Management Model	12 to 18 months

How Did We Prepare this Report?

On November 18, 2020, the LIPA Board of Trustees instructed staff to develop and present options for better managing LIPA's assets. An exercise of this report's scope typically takes six to nine months; however, the issues and options are well understood, and the economics are straightforward.

To meet the Board's expectations, LIPA developed the study internally with an "all hands on deck" approach headed by Thomas Falcone, LIPA's Chief Executive Officer and a team of staff and consultants. The team rose to the occasion, devoting long hours towards developing the models, analyzing the data, and brainstorming the options. The Phase I report was developed in less than a month, without compromising on the quality and clarity of thinking. The core team of both staff and consultants are listed below.

Long Island Power Authority

Thomas Falcone
Chief Executive Officer

Tamela Monroe
Chief Financial Officer

Anna Chacko
General Counsel

Mujib Lodhi
Chief Information Officer and Senior Vice President of Customer Experience

Kenneth Kane
Senior Advisor for Oversight

John Little
Senior Advisor for Rates and Regulatory Affairs

Donna Mongiardo
Vice President – Controller

Gerard Ring
Director of Budget and Financial Oversight

Barbara Ann Dillon
Director of Human Resources and Administration

Alex Pozdnyakov
Assistant General Counsel

Joseph Wiener
Assistant General Counsel

Jen Hayen
Director of Communications

Michael Quinn
Senior Manager of Performance Assessment and Contract Administration

tieBridge, inc.

Osman Ahmad
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Robert Schofield
Labor and Employment Law

Evan Piercey
Labor and Employment Law

Cheiron, Inc.

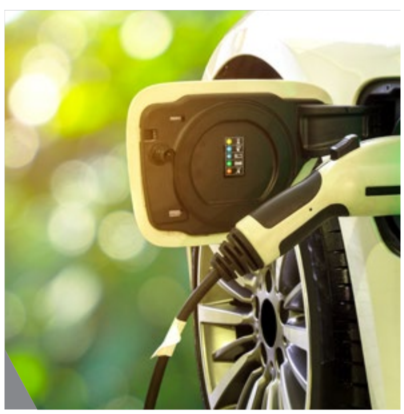
Gene Kalwarski
Pension Actuary

Michele Domash
Health and Welfare Actuary

PFM

Michael Mace
Public Finance Expert

Carolyn Brunch
Public Finance Expert



LIPA
Long Island Power Authority