

2017 INTEGRATED RESOURCE PLAN

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# PUBLIC COMMENT SUMMARY

# COMMUNITY OUTREACH

## PUBLIC ENGAGEMENT

- ▶ **FOUR PUBLIC HEARINGS**
- ▶ **JUNE 21 & JUNE 22**
- ▶ **110+ ATTENDEES**
- ▶ **48 COMMENTERS**

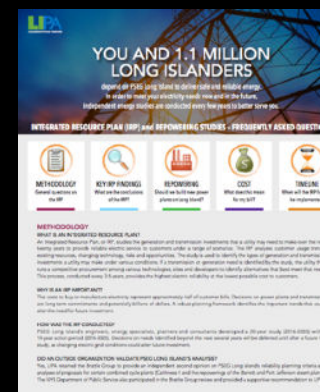
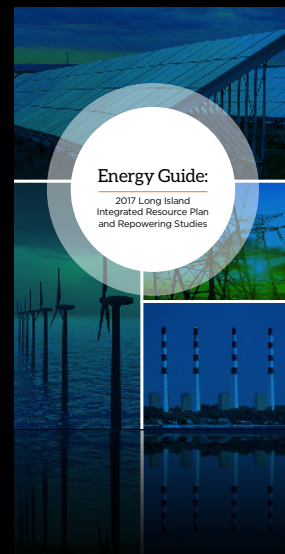


PRESS CONFERENCE @ SUFFOLK LEGISLATURE - JUNE 21

## REPORTS & GUIDES

### SUPPORTING DOCUMENTS:

- 2017 IRP SUMMARY ANALYSIS
- INDEPENDENT PLANNING REVIEWS
- REPOWERING REPORTS
- DPS OPINION
- POWER PLANT CONDITION ASSESSMENT
- GUIDES, CHARTS, PRESENTATIONS & FAQs



## GOVERNMENT & MEDIA

- ▶ **35+ STAKEHOLDER, COMMUNITY & ELECTED OFFICIAL BRIEFINGS**
- ▶ **50+ NEWS ARTICLES**





# COMMUNITY SUPPORT



**"THIS PLAN VALIDATES OUR CALL FOR A TRANSITION AWAY FROM ANTIQUATED ENERGY TECHNOLOGY TO A MODERNIZATION OF OUR ENERGY INFRASTRUCTURE"**

- ▶ **Adrienne Esposito, Executive Director**  
Citizens Campaign for the Environment



**"THE TIME IS NOW FOR FOR ALL PARTIES TO COME TO AN AGREEMENT ON BOTH THE FUTURE OF THE PLANTS AND THE TAXES BEING PAID BY ALL LONG ISLANDERS"**

- ▶ **Mitch Pally, CEO**  
Long Island Builders Institute



**"WHAT WE ARE WITNESSING HERE IS A HISTORIC GAME CHANGER ON HOW LONG ISLAND PRODUCES ITS ELECTRICITY"**

- ▶ **Gordian Raacke, Executive Director**  
Renewable Energy Long Island



**"WE APPLAUD THIS BOLD PROGRESS IN TRANSFORMING LONG ISLAND'S UTILITY INTO A MODEL FOR THE NATION."**

- ▶ **Lisa Dix, NY Senior Representative**  
Sierra Club



**"LIPA'S IRP PROVIDES AN EFFECTIVE ROADMAP THAT CUTS THE COST OF ENERGY & REDUCES OUR PROPERTY TAX BURDEN"**

- ▶ **Kyle Strober, Executive Director**  
Association for a Better Long Island



**"LIPA'S PLAN ENVISIONS SMART AND STRATEGIC INVESTMENTS IN RENEWABLE ELECTRIC GENERATION THAT WILL INCREASE RELIABILITY AND LOWER COSTS"**

- ▶ **Liz Gordon, Director**  
New York Offshore Wind Alliance



# COMMUNITY SUPPORT



**"I WANT TO COMMEND THE ENTIRE  
IRP PROCESS AND THE OUTREACH TO  
DESCRIBE ITS IMPORTANT FINDINGS"**

- ▶ Neil Lewis, Executive Director  
LI Sustainability Institute



**"LIPA'S PLAN IS ILLUMINATING, SHOWING  
US THAT BY TAPPING INTO THE GREAT  
POTENTIAL OF OFF-SHORE WIND, LONG  
ISLAND'S GRID WILL BE MORE EFFICIENT"**

- ▶ Anne Reynolds, Executive Director  
Alliance for Clean Energy New York



**"IT'S REFRESHING TO SEE A  
PLAN THAT VALUES THE PUBLIC  
INTEREST OVER POLITICS"**

- ▶ Sammy Chu, Executive Director  
US Green Buildings Council



**"CLIMATE CHANGE IS THE MOST CRITICAL  
ISSUE OF OUR GENERATION. LONG ISLAND IS  
TO BE COMMENDED FOR TAKING THE LEAD  
MOVING TOWARDS A RENEWABLE ENERGY"**

- ▶ Ling Tsou, Co-Founder  
United for Action



**"WE APPLAUD THE IRP AS A TRIUMPH IN  
THE FIGHT AGAINST CLIMATE CHANGE  
AND A BOLD MOVE TO ECONOMIC AND  
EFFICIENT RENEWABLES"**

- ▶ George Povall, Director  
All Our Energy



**"OFF-SHORE WIND REPRESENTS AN  
OPPORTUNITY FOR THE LABOR COMMUNITY TO  
GO TO WORK AND EARN A DECENT WAGE.  
WHEN LABOR THRIVES, LONG ISLAND THRIVES"**

- ▶ Dick O'Cane, President  
Nassau Suffolk Building Trades



# COMMUNITY SUPPORT



**"THIS IS THE BLUE PRINT WE NEED FOR ALL NEW YORKERS."**

- ▶ Kim Fraczek, Director  
Sane Energy Project



**"LIPA'S PLAN IS IS A CRITICAL PART OF THE EMPIRE STATE'S COMMITMENT TO GET 50% OF OUR POWER FROM RENEWABLE SOURCES"**

- ▶ Heather Leibowitz, Director  
Environment New York



**"FROM TURBINE CONSTRUCTION & MAINTENANCE & SUPPLY CHAIN JOBS, LARGE SCALE OFF-SHORE WIND DEVELOPMENT MEANS FORWARD PROGRESS"**

- ▶ Tim McCarthy, Business Representative  
IBEW 25



**"LONG ISLAND'S LEADERSHIP IN STARTING THE TRANSITION TO CLEAN ENERGY IS TO BE APPLAUDED, MAINTAINED AND REPLICATED."**

- ▶ Eric Weltman, Senior Organizer  
Food & Water Watch



**"WE MUST ACT NOW TO COMBAT CLIMATE CHANGE AND BUILD AND IMPLEMENT OFFSHORE WIND "**

- ▶ Lisa Tyson, Director  
Long Island Progressive Coalition



**"WE ARE EXCITED TO PUT OUR SKILLED WORKFORCE ON THE JOB FOR A NEW AMERICAN INDUSTRY – OFFSHORE WIND."**

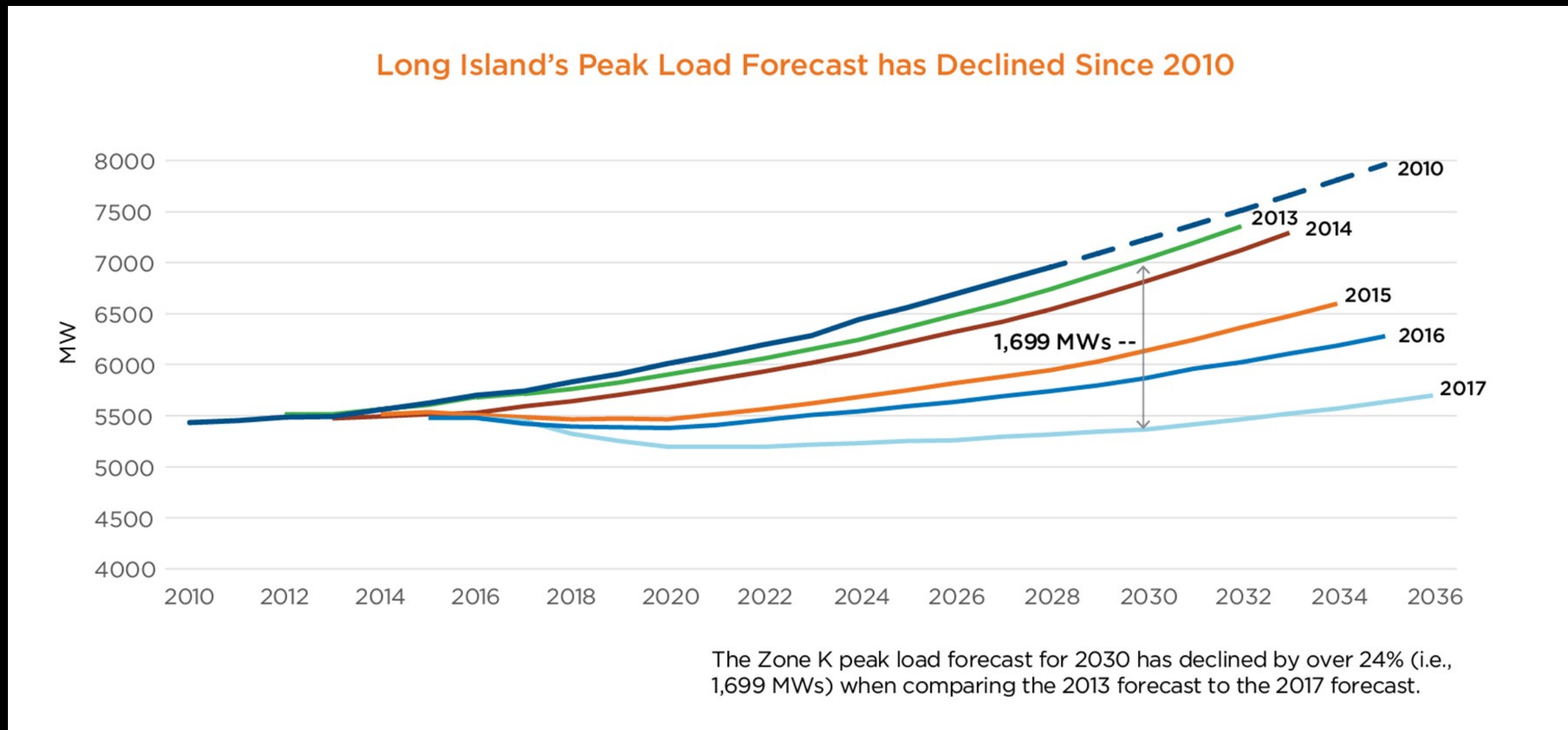
- ▶ John Durso, President  
Long Island Federation of Labor

2017 INTEGRATED RESOURCE PLAN

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# SUMMARY

# LONG ISLAND'S PEAK LOAD FORECAST SHOWS DRAMATIC REDUCTIONS

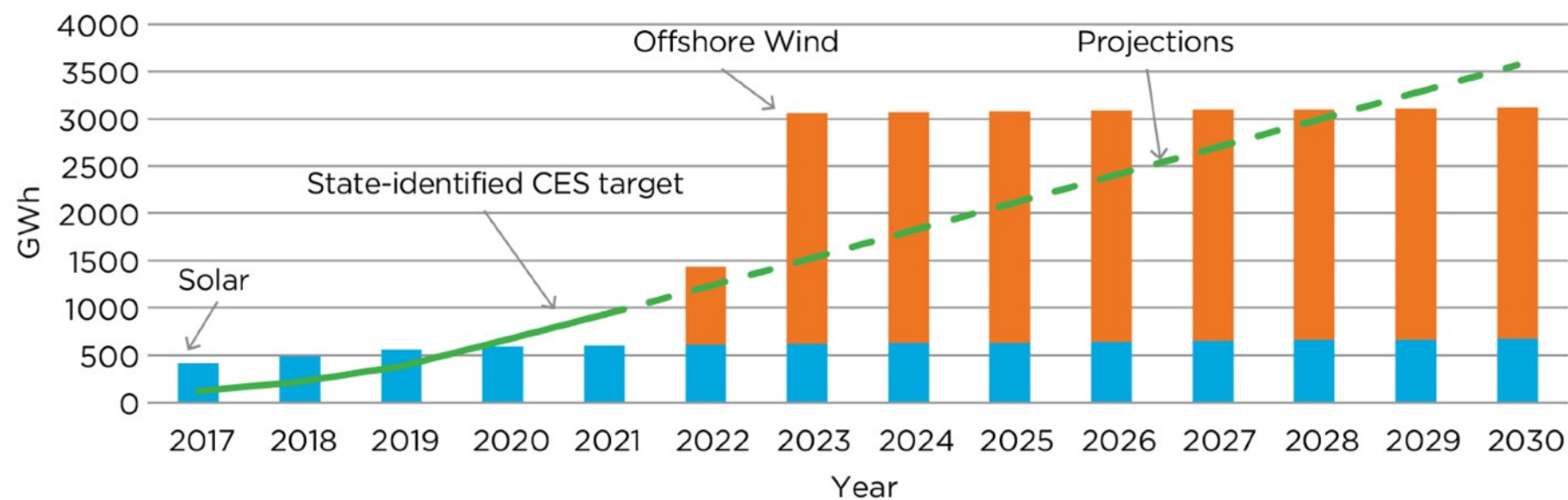


- ▶ FORECAST NEED FOR POWER PLANTS IN 2030 HAS DECLINED BY 1,700MW OR (24%)
- ▶ ENERGY EFFICIENCY & ROOFTOP SOLAR WILL REDUCE LOAD BY 950MW THROUGH 2030



# EXPANDING CLEAN ENERGY

LIPA's New Renewable Energy Generation to Meet 50x30 Clean Energy Standard



Note: The proportion of OSW and solar reflected in the graphic represents a planning assumption. Actual project selection will be based on competitive solicitations

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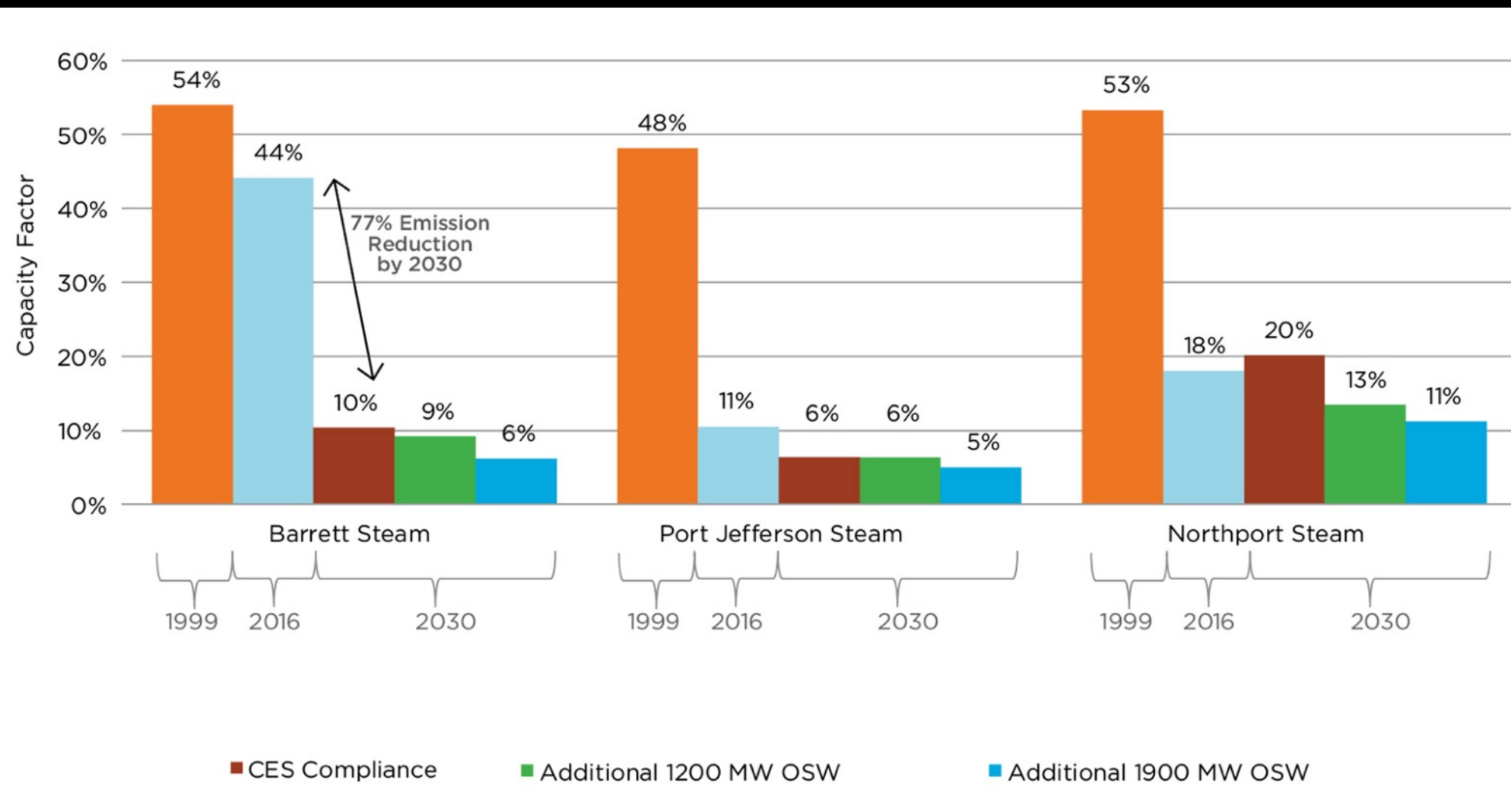
Note: The proportion of OSW and solar reflected in the graphic represents a planning



- ▶ NY'S 50 PERCENT RENEWABLE BY 2030 CLEAN ENERGY STANDARD REQUIRES LIPA TO ADD 800MW OF NEW RENEWABLE GENERATION
- ▶ LOAD IS EXPECTED TO BE REDUCED BY 950MW THROUGH 2030 AS RESULT OF ENERGY EFFICIENCY, ROOFTOP SOLAR, AND OTHER 'BEHIND THE METER' INITIATIVES



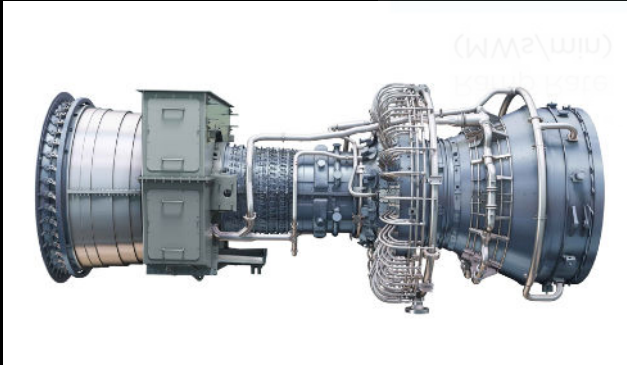
# RUN-TIME OF STEAM PLANTS FORECAST TO DECLINE



- ▶ RENEWABLES REDUCE USAGE & EMISSIONS OF FOSSIL FUEL PLANTS
- ▶ BUILDING NEW BASELOAD COMBINED-CYCLE PLANTS PROVIDE TOO FEW BENEFITS & RAISE CUSTOMER COSTS BY UP TO \$5 BILLION

# NEW GENERATION FLEET FOR LI'S FUTURE ENERGY GRID

Characteristic	Existing PSA Units		New Units			
	Steam Units	Combustion Turbines	Combined Cycle	Peaking Units (Simple Cycle)		
				Large Frame	Small Frame	Area
Cold Start Time	26 - 30 hours	10-30 minutes	3 - 4 hours	10 min	10 min	≤ 10 min
Time (hours)	16	1	4	No technical minimum limit		
Ramp Rate (MWs/min)	2 - 4	NA	15 - 40	50 - 100+	25	25
Heat rate (Btu/kWh)	10,000 - 11,300	13,000-16,500	6,600 - 6,800	8,000 - 8,200	9,700	8,900 - 9,500



▶ MODERN PEAKING UNITS, BATTERIES & DEMAND RESPONSE PROVIDE MORE FLEXIBLE RESOURCES AND SUPPORT RENEWABLES

▶ BASELOAD COMBINED-CYCLE PLANT



# PUBLIC COMMENTS & STAFF RESPONSE

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**WERE THE ECONOMICS OF  
REPOWERING POWER PLANT  
INDEPENDENTLY VERIFIED?**

**YES. AN INDEPENDENT SECOND OPINION  
BY THE BRATTLE GROUP VALIDATED THE  
COSTS ASSOCIATED WITH REPOWERING.**

**THE PROPOSED BASELOAD POWER  
PLANTS WOULD INCREASE CUSTOMER  
BILLS BY UP TO \$5 BILLION.**

# PUBLIC COMMENTS & STAFF RESPONSE

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**HOW DO YOU KNOW IF THE EXISTING STEAM PLANTS WILL CONTINUE TO OPERATE RELIABLY?**

**RCM TECHNOLOGIES CONDUCTED AN INDEPENDENT CONDITION ASSESSMENT OF NATIONAL GRID GENERATION AND CONCLUDED THAT WITH REASONABLE CAPITAL AND O&M EXPENDITURES THE PSA STEAM UNITS WILL CONTINUE TO OPERATE RELIABLY THROUGH THE LIFE OF THEIR CONTRACT.**

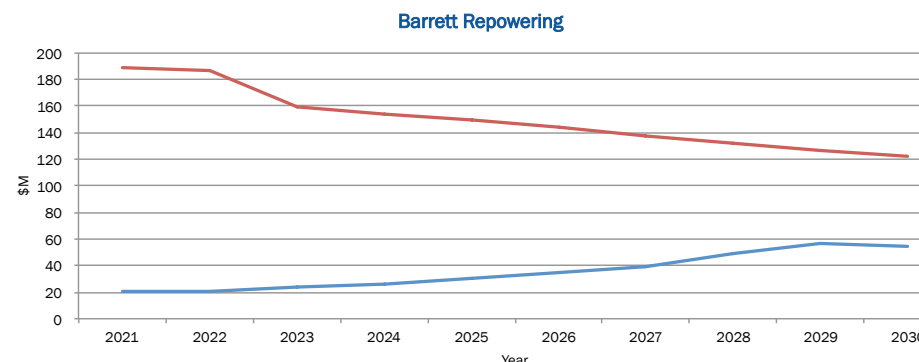


# PUBLIC COMMENTS & STAFF RESPONSE

THE IRP DOES NOT TAKE INTO ACCOUNT THE REDUCED OPERATING COSTS FROM PLANT EFFICIENCIES.

THE IRP DID ACCOUNT FOR OPERATING EFFICIENCIES AND CONCLUDED THAT REPOWERING THE PLANTS OR BUILDING NEW COMBINED CYCLE PLANTS IN ANOTHER LOCATION DO NOT PAY FOR THEMSELVES WITH FUEL SAVINGS.

— COSTS  
— BENEFITS



# PUBLIC COMMENTS & STAFF RESPONSE

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THE ADVANTAGE OF A REPOWERED BARRETT PLANT IS THAT IT WOULD BE BUILT AT A HIGHER ELEVATION WHICH PREVENTS IT FROM FLOODING SUCH AS DURING SUPERSTORM SANDY.

THE EXISTING BARRETT STEAM PLANT WAS NOT FLOODED DURING SANDY, BUT THE SUBSTATION WAS.

THAT SUBSTATION HAS SINCE BEEN ELEVATED.



# PUBLIC COMMENTS & STAFF RESPONSE

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**WILL THE IMPACT ON THE FISHING COMMUNITY BE CONSIDERED WHEN PLANNING TO BUILD OFFSHORE WIND FARMS?**

**YES.**

**NYSERDA'S OFF-SHORE WIND MASTER PLAN WILL EVALUATE FISHERY IMPACTS & ADDRESS THE CONCERNS OF THE FISHING COMMUNITY.**

# PUBLIC COMMENTS & STAFF RESPONSE

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**DID PSEG LONG ISLAND CONSIDER THE FACT THAT THE WIND DOES NOT BLOW ALL OF THE TIME?**

**YES.**

**PSEG LONG ISLAND APPLIED A STANDARD OPERATING PROFILE FOR OFFSHORE WIND PROJECTS. THIS IS SIMILAR TO ASSUMPTIONS USED BY THE NEW YORK INDEPENDENT SYSTEM OPERATOR.**

# PUBLIC COMMENTS & STAFF RESPONSE

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**INCREASING RENEWABLES WILL INCREASE DEPENDENCE ON IMPORTED-FOSSIL FUEL ENERGY SOLD BY OFF-ISLAND COMPANIES.**

**ADDITIONAL RENEWABLES DISPLACE EXISTING GENERATION, BUT DO NOT INCREASE DEPENDENCE ON IMPORTS.**



# LIPA STAFF RECOMMENDATIONS

- ▶ **MEET** NEW YORK'S 50 X 30 GOAL WITH 800MW OF CLEAN ENERGY & 950MW OF ENERGY EFFICIENCY & ROOFTOP SOLAR
- ▶ **PARTNER** WITH NYSERDA TO REDUCE THE COST OF OFFSHORE WIND DEVELOPMENT
- ▶ **STUDY** LONG ISLAND'S PEAKING GENERATION FLEET & INTEGRATE BATTERIES AND DEMAND RESPONSE TO SUPPORT INTERMITTENT RENEWABLE GENERATION
- ▶ **RUN** COMPETITIVE SOLICITATIONS AMONG MULTIPLE SITES, TECHNOLOGIES AND DEVELOPERS TO OBTAIN THE LOWEST COST AND BEST SOLUTIONS FOR CUSTOMERS TO MEET ANY FUTURE NEEDS
- ▶ **DECLINE** TO MOVE FORWARD WITH REPOWERING STEAM PLANTS OR BUILDING NEW COMBINED CYCLE PLANTS
  - ▶ SPECIFIC PROPOSALS PROVIDE TOO FEW BENEFITS AT TOO MUCH COST TO CUSTOMERS
- ▶ **MONITOR** AND UPDATE IRP BASED ON EXPERIENCE AND TRENDS

## **FOR CONSIDERATION**

July 26, 2017

**TO:** The Trustees

**FROM:** Thomas Falcone

**RE:** 2017 Integrated Resource Plan and Repowering Studies for the E.F. Barrett and Port Jefferson Power Plants, including (i) Summary of Public Comments from DPS and (ii) Staff's Responses and Recommendations

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### **Requested Action**

None requested.

### **Background**

Utilities conduct integrated resource plans ("IRPs") to identify long-term resource needs and to assess available options for meeting those needs. Notably, IRPs were introduced in the 1970's to integrate the evaluation of the major categories of options in resource planning: demand-side management, generation, and transmission. LIPA's last such plan, known as the Electric Resource Plan, was issued in 2010. In 2015, PSEG Long Island assumed responsibility for long-range power supply planning and began developing a new IRP.

### **Scope of the IRP**

During the development of the 2017 IRP, PSEG Long Island conducted outreach with stakeholders to discuss the scope of the effort and to take input on scenarios and assumptions. In addition to incorporating stakeholder input, the IRP addressed other important developments.

First, in June 2015 the New York State Legislature enacted an amendment to the LIPA Reform Act that required LIPA and PSEG Long Island to conduct feasibility studies of repowering the legacy steam plants owned by National Grid (the "Repowering Studies"). The studies for E.F. Barrett and Port Jefferson plants were to be completed by April 2017, per the law, while the study for Northport plant is to be completed by April 2020.

Second, the IRP re-examined the need for and cost effectiveness of the proposed approximately 700 megawatt ("MW") Caithness II combined-cycle power plant, for which contract negotiations had been suspended in 2014, pending the completion of the IRP.

Third, during the summer of 2016 the New York Public Service Commission adopted the Clean Energy Standard ("CES"), requiring utilities under its jurisdiction to use renewable energy to meet at least 50% of overall state-wide energy requirements by 2030 ("50x30"). LIPA Staff requested that PSEG Long Island analyze the impact of the CES on the IRP.

Finally, in January 2017, the Governor of New York announced a goal to develop 2,400 MWs of offshore wind by 2030. LIPA Staff requested that PSEG Long Island also assess the impact of this initiative on the Long Island electric grid as part of the IRP.

### **IRP Issuance**

The IRP was initially issued by LIPA Staff on April 19, 2017 and consists of approximately 325 pages of information and analysis, including the:

- *2017 Integrated Resource Plan: PSEG Long Island Analysis Summary*;
- *Energy Guide: 2017 Long Island Integrated Resource Plan and Repowering Studies*, including LIPA Staff's Recommendations;
- *IRP and Repowering Studies - Frequently Asked Questions*;
- *Repowering Feasibility Study of the Port Jefferson Power Station*;
- *Repowering Feasibility Study of the E.F. Barrett Power Station*;
- *Condition Assessment of National Grid Electric Generation Assets*, by RCM Technologies, an independent provider of technology and engineering services, which was included as an appendix to the Repowering Studies;
- *LIPA Generation Planning Review: Caithness Long Island II, and E.F. Barrett and Port Jefferson Repowerings*, an independent second opinion prepared for LIPA by the Brattle Group;
- Letter from the Department of Public Service ("DPS") dated April 18, 2017 regarding the Brattle Group review; and
- *DPS Public Statement Hearings*, a presentation summarizing the IRP and Repowering Studies, which was presented at the below described DPS-sponsored public comment hearings.

### **IRP Findings**

The IRP presented several findings, notably:

- System load growth projections have declined significantly since 2010 and continuation of LIPA's energy efficiency and rooftop solar programs is expected to reduce projected peak loads by 950 MWs by 2030. The forecasted 2030 peak load is now about the same as the load was in 2016.
- The existing fleet of on-Island power plants has been well maintained and can be expected to continue to operate reliably at least through the expiration of the Power Supply Agreement with National Grid in 2028, as confirmed by the RCM Technologies Condition Assessment.



- No new on-Island power plants are needed to meet the capacity requirements of the New York Independent System Operator until 2035, assuming 800 MWs of renewable resources are added by 2030 to meet the CES and that existing generation on Long Island remains in service.
- Proposed combined-cycle plants to replace the E.F. Barrett and Port Jefferson steam plants, as well the proposed Caithness II plant, would each impose a substantial net cost increase, in aggregate totaling approximately \$5 billion, after consideration of the savings in fuel, capacity, and the avoided fixed and variable costs of the existing steam plants.
- Compliance with CES and the addition of substantial amounts of offshore wind resources will cause a significant decline in the energy production of the steam plants, as well as any replacement plants, further eroding the economics of repowering;
- Neither the old steam plants nor new combined-cycle plants are particularly well-suited to compensate for the expected changes in load patterns and the intermittency of renewable generation;
- Replacement of legacy peaking plants is likely to better meet changing system needs.

The *LIPA Generation Planning Review* issued by the Brattle Group concluded with respect to PSEG Long Island's resource planning studies, i.e., the IRP and the Barrett and Port Jefferson Repowering Feasibility studies: "Our assessment is that these studies have reached the right conclusions." In particular, the Brattle Group found that:

- PSEG Long Island's decision to apply the planning criteria of the New York Independent System Operator (NYISO) was appropriate;
- There is no compelling reason for LIPA to proceed with the Caithness II project; and
- There is little likelihood that Caithness II or the repowering projects would be needed or economic, given the most likely market changes in the coming years.

Additionally, the DPS letter dated April 18, 2017 stated that the Brattle Group's conclusions regarding LIPA's adoption of the NYISO's resource planning criteria and the Brattle Group's analysis with respect to the need for Caithness II were reasonable.

### **IRP Staff Recommendations**

Along with the IRP, LIPA Staff issued a set of recommendations:

- Monitor annually energy and peak demand growth; and monitor the operating performance and budgets of the legacy power plants relative to IRP expectations;
- Evaluate opportunities for economies of scale in offshore wind by partnering with NYSERDA and other local utilities in procurement and interconnection to the electric grid;
- Maintain energy efficiency and renewable energy programs to reduce load by 950 MWs through 2030;

- Study the peaking generation fleet and its ability to accommodate the flexible operating profile required by greater amounts of renewable generation; and study selected retirements and modernization of peaking units;
- Cancel the 2010 Generation RFP, including Caithness II, with no award; and cancel further study of the current combined-cycle repowering proposals for Barrett and Port Jefferson; and
- Conduct technology-neutral competitive procurements (e.g., peaking plants, batteries, demand response, etc.) to meet future identified needs, including utilizing rights to the National Grid brownfield power plant sites to obtain bids by multiple developers; and conduct a repowering study of the Northport steam plant commencing October 2018 and to be completed by April 2020, as required by law.

### **IRP Public Comments and LIPA Staff Responses**

On June 21 and 22, DPS conducted four public statement hearings, at which 47 interested parties spoke or submitted written comments on the IRP. An additional 32 comments were submitted to DPS by mail, email and telephone. A summary of the public comments prepared by the DPS is attached to this memo along with a letter from the Chief Executive Officer of the DPS, dated July 25, 2017. A transcript of public comments is available in their entirety through the DPS' Document Matter Management website under [Matter No. 17-00696](#).

Nearly all the public comments were supportive of the IRP's reliance on renewable resources and energy efficiency to meet load and CES requirements instead of building new baseload power plants. A total of 48 commenters, consisting of environmental advocates, business and labor groups, and individuals, agreed with Staff's recommendations. Supportive comments, submitted through the DPS public comment period or by other means, included:

- *Gordian Raacke*, the head of *Renewable Energy Long Island*, called the IRP "...a historic game changer on how Long Island produces its electricity."
- *Roger Clayman*, *Executive Director of the Long Island Federation of Labor*, commented "[w]e are very much in favor of the plan and thank LIPA for this plan of moving forward with an offshore wind industry because we believe it will bring hundreds if not thousands of jobs – good jobs, union jobs to Long Island."
- *Lisa Dix*, representing the *Sierra Club*, stated that the Club "...applauds this bold and visionary plan...the first step in this transition of moving away from dirty, expensive, and unnecessary fossil fuels to the renewable energy economy now."
- *Adrienne Esposito*, *Executive Director of Citizens' Campaign for the Environment* ("CCE"), stated "[CCE] supports the LIPA plan. The advances in technology and the economies of scale have driven the cost of renewables to the point where it makes them the best choice for our needs over the next twenty years."

- *Mitch Pally, Chief Executive Officer of the Long Island Builders Institute*, supported the conclusions related to the legacy plants and fair taxes on such plants stating, “The time is now for all parties to come to an agreement on both the future of the plants and the taxes being paid by all Long Islanders.”
- *Sammy Chu, Chairman of the U.S. Green Building Council Long Island Chapter*, expressed “...enthusiastic support for the LIPA IRP...a plan to move us forward in a very smart and responsible way.”
- *Kyle Strober, Executive Director for the Association for a Better Long Island*, stated “LIPA’s IRP provides an effective roadmap that cuts the cost of energy and reduces our property tax burden.”
- *Neil Lewis, Executive Director of the Sustainability Institute at Molloy College*, stated in written comments that the institute “...applaud[s] the thorough multi-year process that was undertaken in order to develop the Integrated Resource Plan (IRP)...and we agree with the recommendation that LIPA should not enter into new, long-term power purchase (PPA) or capacity agreements for new (or the repowering of old) large, base-load fossil fuel power plants.”
- *Richard O’Kane*, representing the *Nassau-Suffolk Building Trades Council*, described the job opportunities that will come from development of offshore wind, noting that “...[t]his project will also generate jobs in the manufacturing and assembly industries and scientific industries as well.”
- *Liz Gordon, Director of the New York Offshore Wind Alliance*, stated “LIPA’s plan envisions smart and strategic investments in renewable electric generation that will increase reliability and lower costs.”

Several commenters took issue with Staff’s IRP recommendations, including to decline the E.F. Barrett and Port Jefferson steam plant repowerings, decline the Caithness II combined-cycle plant, or other aspects of the IRP. The public comments that reflect on Staff’s recommendations included:

- *Assembly members Murray and Thiele asserted that the IRP estimate of \$5 billion in additional costs associated with the three proposals is predicated on renewables being added at no cost.*
  - LIPA Staff Response: This assertion is incorrect. The \$5 billion estimate is the difference between the cost of the proposals and the costs that would be avoided by the proposals (principally, fuel and fixed costs associated with the legacy power plants). Since the amount of renewables was assumed to be the same (800 MWs by 2030) in either case, the cost of renewables does not affect the \$5 billion estimate.



- *Port Jefferson Mayor Garant questioned the assumed level of payments-in-lieu of taxes (“PILOTs”) associated with a repowered plant at Port Jefferson and recommended further study of the economics of repowering.*
  - LIPA Staff Response: Absent a commitment by the Village of Port Jefferson to a specific level of taxes, LIPA and PSEG Long Island reasonably assumed that the new plant’s PILOT would be at the same level as the existing plant. Moreover, the increased cost associated with the repowered plant is approximately \$100 million per year (see Port Jefferson Repowering Feasibility, Figure 5-1), so no amount of reduction in the PILOT would make the project economic.
- *Port Jefferson Trustee Bruce Miller cited a 2012 London Economics study that he claimed estimated \$200 million annual savings from repowering Port Jefferson. He also recommended that National Grid repower the plant or sell the property.*
  - LIPA Staff Response: Mr. Miller mischaracterized the results of the London Economics study. Although the study purported to estimate savings as a result of reduced prices in statewide energy and capacity markets of \$270 million and \$236 million, respectively, the study reported that only \$98 million and \$29 million, respectively, of these savings would accrue to Long Island customers, subject to two significant qualifiers: (1) “These wholesale market benefits are not permanent and would be expected to diminish over time”; and (2) “...however, commercial arrangements can prevent benefits from reaching ratepayers.” The study cites “hedges” as examples of such commercial arrangements. LIPA’s hedges are its power purchase agreements, including the National Grid Power Supply Agreement, that LIPA uses to meet the majority of its on-Island capacity requirements. So, relatively few repowering benefits would flow to ratepayers, while the cost of repowering – estimated by London Economics at \$77 million per year – would be incurred for the term of the contract.

Mr. Miller’s recommendation in the alternative to sell the National Grid property is consistent with the LIPA Staff recommendation to conduct competitive procurements to redevelop the legacy generation sites.
- *The Long Island Commercial Fishing Association requested that the Public Service Commission hold hearings on the impact of offshore wind development and noted that their members were not invited to participate in NYSERDA’s stakeholder process.*
  - LIPA Staff Response: The Director of DPS Long Island responded in a letter dated July 20, 2017 that fishery impacts will indeed be considered in NYSERDA’s Offshore Wind Master Plan and he extended an invitation for the association’s members to participate in NYSERDA’s stakeholder process to offer input on the Plan.

- *Mayor Murray of Rockville Centre, citing a theme in the IRP, described the need to add fast-start, low emissions generation to address the intermittency of renewable generation; and recommended a joint project with LIPA to develop a new peaking plant in Rockville Centre.*
  - LIPA Staff Response: Such an option is worth considering when PSEG Long Island conducts its study of peaking generation needs, though such a project would need to be procured through a competitive process.
- *John Cameron, Managing Partner of Cameron Engineering & Associates, LLP, who serves as Chair of the Long Island Regional Planning Council, challenged certain assumptions used in the Barrett repowering study and the IRP's analysis of repowering economics:*
  - *Mr. Cameron questioned the ability of the existing Barrett steam plant to operate reliably through 2030. He also asserted that "...the IRP fails to credit the reduced operating costs realized from tremendous increases in plant efficiencies..."*

LIPA Staff Response: The RCM Technologies Condition Assessment of the National Grid plants concluded that the existing steam plants could operate reliably at least through 2028 (the term of the Power Supply Agreement with National Grid) with "normal" maintenance. In this instance, "normal" means continued capital investments to repair and replace boiler and turbine components at various intervals, as has been done since 1998. The plants continue to operate reliably, and there is no known reason to assume such operation cannot be sustained. That said, the planned peaking unit study may identify opportunities to replace one or more existing steam plants or legacy peaking units with new peaking units.

Mr. Cameron's statement that the IRP failed to account for operating efficiencies overlooks the clear presentation of those benefits in each repowering report (e.g., Barrett Repowering Feasibility Study, Figure 5-1).

- *Mr. Cameron questioned the assumed contribution of offshore wind toward meeting peak loads, asserting that the wind doesn't blow at times of peak load and that LIPA assumed the full nameplate capacity of wind projects would be available.*

LIPA Staff Response: Mr. Cameron's assertion that LIPA assumed full output of offshore wind projects at time of peak is incorrect. PSEG Long Island applied a standard operating profile for offshore wind projects that takes account of the potential for reduced output at times of peak load, while crediting the fact that wind speeds 30 miles off shore tend to be greater and more consistent than on land. It should be noted that the New York Independent System Operator uses similar assumptions to administer the capacity market in New York.

- *Mr. Cameron questioned the projected reduction in NOx emissions caused by reduced operation of E.F. Barrett. He asserted that atmospheric NOx causes nitrogen pollution of local waterways, such as Hempstead Bay.*

LIPA Staff Response: PSEG Long Island modeled the emissions from E.F. Barrett using detailed data on the performance of the existing units at both high and low loading levels. The stack height of the existing Barrett units was designed to minimize local impacts. During the recent study of repowering, air modeling studies confirmed that the existing units do not violate air quality standards and have minimal local impacts.

- *Mr. Cameron asserted that the IRP did not properly assess the thermal impacts of once-through cooling on Hempstead Bay.*

LIPA Staff Response: Although the IRP did not explicitly address thermal impacts, reduced operation of the existing steam plants will reduce those impacts, at a much lower cost than repowering.

- *Mr. Cameron noted that a new plant would be built at a higher elevation than the existing plant.*

LIPA Staff Response: The existing E.F. Barrett steam plant was not flooded during Super Storm Sandy. The substation serving the station was flooded and has since been elevated to meet current flood standards. Constructing a new plant would provide a marginal increase in resiliency at a substantial cost to customers.

- *Increased penetration of renewables increases dependence on imported fossil-fueled energy sold by off-island companies.*

LIPA Staff Response: Additional renewables displace existing generation, but do not increase dependence on imports. The electricity market is operated to minimize cost across the region, so customers can benefit from lower cost supplies when they are available.

- *The IRP did not consider repowering at reduced capacity, if all of the existing capacity is not needed.*

LIPA Staff Response: The IRP did not identify a need for reduced capacity. It assumed that existing capacity would be maintained. However, the E.F. Barrett repowering report addressed the potential economics of a smaller plant in the event that reduced capacity is found to be appropriate.

Additionally, the LIPA Staff recommendation includes a study of peaking plants, which includes the potential to replace at a future date legacy steam or peaking plants with new peaking plants, batteries, or demand response programs that better meet future operating conditions, at the most appropriate plant sites and through a competitive bidding process.

- *The IRP should consider the vulnerability of plants to physical and cyber-attacks.*

LIPA Staff Response: LIPA and PSEG have an ongoing program to address such issues, though the subject was not discussed in the IRP.

- *On July 18, 2017, the Suffolk County Legislature submitted a letter seeking “...a better understanding of the economic and environmental cost/benefits relating to the draft Integrated Resource Plan.”*

LIPA Staff Response: LIPA and PSEG staff are ready to meet with the Legislature to address the matters contained in its letter.

### **Conclusion and Next Steps**

LIPA Staff reviewed the public comments and concluded, for the reasons provided above, that none of the comments warrant a change in Staff’s recommendations. Accordingly, Staff intends to carry out its recommendations, none of which require action by the Board. The recommendations are consistent with the proposed Board Policy on Resource Planning, Energy Efficiency, and Renewable Energy, which will be considered by the Board at the July 26, 2017 meeting.

#### **Attachments:**

- (i) Letter from John Rhodes, CEO of Department of Public Service, dated July 25, 2017
- (ii) Summary of IRP Public Comments by the Department of Public Service



## Department of Public Service

125 East Bethpage Road, Plainview, NY 11803  
[www.dps.ny.gov/longisland](http://www.dps.ny.gov/longisland)

**John B. Rhodes**  
Chair and  
Chief Executive Officer

**Thomas Congdon**  
Deputy Chair and  
Executive Deputy

**Paul Agresta**  
General Counsel

**Kathleen H. Burgess**  
Secretary

July 25, 2017

Sent Electronically and via US Mail

Thomas Falcone  
Chief Executive Officer  
Long Island Power Authority  
333 Earle Ovington Blvd.  
Uniondale, New York 11553

Re: Matter No. 17-00696 - In the Matter of Long Island Power Authority and PSEG  
Long Island LLC Integrated Resource Plan.

Dear Mr. Falcone:

I am pleased to provide a summary of the public comments received by the New York State Department of Public Service (DPS or the Department) concerning the Integrated Resource Plan (IRP or Plan) prepared by PSEG Long Island LLC (PSEG LI or Service Provider), and provided by the Long Island Power Authority (LIPA) to the Department on April 24, 2017. The public comments provide important input to be taken into account to inform the IRP process. The IRP included several supporting documents including: 2017 Integrated Resource Plan: PSEG Long Island Summary Analysis; LIPA Generation Planning Review of Caithness Long Island II and E.F. Barrett and Port Jefferson Repowering's by The Brattle Group; Department of Public Service letter regarding The Brattle Group's review; Repowering Feasibility Studies of Port Jefferson Power Station and E.F. Barrett Power Station; and condition assessment of National Grid Electric Generation Assets by RCM Technologies.

The purpose of the IRP includes forecasting future load and energy use in the LIPA service territory, identifying supply and demand side resources to meet load, and evaluating alternative resources that could deliver reliable energy to customers. The IRP considers many factors, among others: supply diversity, system resiliency, compliance with federal and State regulatory policy, environmental impact and the cost of various repowering proposals. A summary of the comments is attached. All



comments are available in their entirety through the Department's Document Matter Management [website](#)<sup>1</sup>.

The LIPA Reform Act (LRA), signed into law on July 29, 2013, provides for oversight of LIPA and PSEG LI by the Department to ensure the provision of safe and adequate transmission and distribution services at rates set at the lowest level consistent with sound fiscal operating principles. In accordance with these responsibilities, DPS established a public comment period and scheduled four public statement hearings on Long Island to ensure a full opportunity for public input with respect to the IRP. Two public statement hearings were held in Nassau County and two in Suffolk County. A total of 47 speakers provided comments. In addition, other forums were made available which included mail, email and telephone. Thirty-two comments were received via those means.

The majority of the comments were generally supportive of the IRP, however, comments also raised concerns which should be taken into account. Many comments commended LIPA for reaching the point where renewable energy is encouraged, rather than expanding the use of fossil fuels, citing renewable energy as being cleaner and less expensive than other forms of generation. Many urged LIPA to move forward with the use of renewable energy more quickly. Specific factors cited in support of the IRP include: the movement away from fossil fuels which reduces air pollution and greenhouse gas emissions and mitigates the potential harm from climate change; the increase in reliability and mitigation of potential harm from future storms; job growth associated with the introduction of alternate forms of power, in particular wind; meeting future energy needs by soliciting competitive bids; and the potential for Long Island to lead the State in the area of clean energy in furtherance of the Clean Energy Standard (CES)<sup>2</sup> that this plan represents.

Comments expressed concern with respect to the IRP on environmental, economic and reliability grounds. Comments include: an absence of specific project and cost data; economics and benefits of repowering should be reconsidered against the cost of renewables particularly with respect to the harm to host communities that would result if existing electric generating plants on Long Island were to be removed from the local tax base and need for a fund to mitigate the effect on these communities; potential harm to the fishing industry should be considered in planning for offshore wind development; reliability issues that should be considered with increasing reliance on renewable energy rather than repowering existing plants; potential harmful effects on the environment of nitrogen formation should be considered with respect to continued operation of existing power plants; and greater weight should be afforded reliability and efficiency gains that would result from repowered plants. Comments also expressed dissatisfaction about a lack of transparency in PSEG LI's distributed resource procurement process and expressed concerns that green space should not be traded for solar power.

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<sup>1</sup> See Matter No. 17-00696.

<sup>2</sup> See Case 15-E-0302.

In addition, a number of comments urged caution in the implementation of the IRP with regard to social issues, such as ensuring that low income individuals were not disadvantaged as compared with others, and also that the possibility of terrorism and cyber-terrorism affecting the electric system should be addressed. Comments also expressed the need for a clearer breakdown of interim renewable energy goals for 2030 in furtherance of the CES and implementation of a mix of renewables rather than predominantly wind. It was also pointed out that the 400 MW renewable goal set by the LIPA Board of Trustees was not yet reached and suggested that LIPA look at other entities that had developed integrated distributed energy resource plans. The Mayor of Rockville Centre, a Long Island community served by its municipal electric company, requested that construction of peaking generating plants in that community be explored. In addition, comments were made with respect to areas less directly related to the IRP, such as the need for a "people's commissioner" and "utility consumer advocate," and that the Indian Point nuclear plant should not be shut down.

Several members of the Suffolk County Legislature jointly provided comments. The comments address a broad range of issues relating to, among other things, peak load forecasts and renewable electric supply for compliance with the CES, offshore wind generation, simple cycle peaking units, and LIPA load reduction. The comments seek clarification regarding resource planning in relation to electric demand issues, and note the need for additional information relating to the IRP's recommendations relating to offshore wind generation and the peaking units. In addition, the legislators seek a greater partnership in overall resource planning.

We would like to thank LIPA and PSEG LI for the work that has gone into development of the IRP to date and provide these public comments to be considered, addressed, and incorporated as may be appropriate into the IRP and future electric resource planning.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John B. Rhodes".

John Rhodes  
Chief Executive Officer,  
Department of Public Service

cc: David Daly, President and COO, PSEG LI  
Jon Mostel, Secretary, LIPA Board of Trustees  
Guy Mazza, Director, DPS Long Island

Attachment

DPS Summary of Comments from the LIPA IRP June 22 and DMM 2017-- Point by Point	
I urge LIPA and PSEG to incorporate as much renewable energy as possible. Fossil fuels are not the future. Conservation, solar, wind and other technologies will provide us with cleaner and cheaper electricity.	Dan Kreisberg
I am in favor of LIPA's plan to include solar, wind and renewable choices for our energy sources.	Deborah Cosher
My wife and I moved back to Long Island to start on a family. On behalf of our two year old daughter, you have my full support for any plans to transition our power supply to renewable resources like wind and solar instead of fossil fuels. The economic and environmental advantages of this move will help to ensure Long Island remains the kind of wonderful place to grow up for her that it was for us.	Sean McDonough
LIPA states that scuttling the [Port Jefferson] power plant [repowering] plans will save ratepayers \$5billion. However, that would only be true if they were able to find a way to generate 800-megawatts of energy at no cost to the ratepayers. Their numbers won't add up. LIPA's Deepwater Wind Proposal is expected to produce 90 megawatts of power at a cost of \$1.62 billion. At similar rates, the cost of generating another 710MW of energy through similar projects will push the total cost to the ratepayers far above \$5 billion. How can anyone comment on proposed clean energy projects without any details of exactly what the projects will be and how much they will cost? We suggest that the Department of Public Service hold off on these hearings until LIPA can put forward an actual plan that consists of details pertaining to the subsequent increased cost for ratepayers and how these projects will be implemented.	Assemblymen Dean and Fred Thiele
The Village of Port Jefferson has been a willing host community for power plants for many decades. We have seen two steam units retired and gas turbine peaker units added. We have been working for years with elected officials, Keyspan and LIPA to replace Units 3 & 4, and to address the plant tax issues. We have reduced taxes by 10% already on the existing steam units.	Port Jeff Mayor Mar Garant
A repowering study was mandated by NYS Senate Bill 2008-B and Assembly Bill 3008-B and required LIPA to evaluate engineering, permitting, environmental issues and feasibility of repowering the PJ steam units. A critical statement in the analyses assumes the same high tax rate for a new combined cycle facility as the current plant. This is not realistic since for a new plant there would be appropriate PILOT payments would be set. It concludes that the new plant is feasible and superior to the current steam plant. The report is totally lacking in the assumptions for gas supply costs, cost of plant and other factors to allow anyone to do an independent analysis of the economics.	Port Jeff Mayor Mar Garant
These studies assume LIPA/PSEGLI can reduce the peak load by 950 MW by 2030 and that the 800 MW of offshore wind comes on line. With wind and solar one needs storage batteries, converter stations and transmission inter-ties, or a whole set of peaking generators sitting by when the wind does not blow or the sun does not shine. All these cost implications are avoided by LIPA /PSEG in their studies.	Port Jeff Mayor Mar Garant
They represent that "electric costs in cents/KWHr for the new efficient combined cycle plant would be similar to renewables costs". Fundamental flaws here are that the old high tax rate is assumed for the repowered units and by definition, with all the renewables coming online, the run time (capacity factor), for the new repowered unit would be reduced from 80% or more. This biases the low cost of new plants by holding down run time and driving up the cost per KWHr. The playing field is not even here since the public has no current idea of the total cost of solar and wind power, given the issues of storage, capital, inter-ties and back up generation. We do believe that renewables are an important part of the portfolio going forward coupled with energy efficiency in all the equipment we use in homes and businesses and with the addition of an efficient combined cycle plant at Port Jefferson.	Port Jeff Mayor Mar Garant

We firmly believe that the recommendation for LIPA to cancel any further studies of repowering the steam units is premature and does not provide a realistic balance between renewables. The newer combined cycle plant that could be reducing emissions and providing a 50% improvement in heat rate- allowing the old steam plant at Port Jefferson to be retired early.	Port Jeff Mayor Mar Garant
The Village of Port Jefferson believes that the economics of repowering Port Jefferson should be looked at further, factoring in more realistic taxes and considering the early retirement of the steam units.	Port Jeff Mayor Mar Garant
We also recommend that PSEG/LIPA make available the true fully loaded costs of the pending renewables so the playing field is fair and defined. LIPA keeps stressing that they seek the most efficient, economical and environmentally sound sources of electricity but have refused to provide the data to support their decision to install significant renewable energy sources at unknown impact to customer bills as compared to a repowered Port Jefferson.	Port Jeff Mayor Mar Garant
The Sustainability Institute at Molloy College applauds the thorough multi-year process that was undertaken in order to develop the Integrated Resource Plan (IRP). In our view, the LIPA reorganization legislation and contracts are serving their intended purpose by improving customer service and system reliability while controlling costs and achieving goals set for energy efficiency and renewables. We acknowledge the Long Island office of the DPS for providing oversight, to ensure that LIPA/PSEG Long Island is operating in a manner consistent with the highest standards for utilities.	The Sustainability In at Molloy College
we agree with the recommendation that LIPA should not enter into new, long-term power purchase (PPA) or capacity agreements for new (or for the repowering of old) large, base-load fossil fuel power plants.	The Sustainability In at Molloy College
The LIPA Board of Trustees should vote to formerly adopt the IRP as a statement of policy regarding the next 10 years of power generation needs.	The Sustainability In at Molloy College
The LIPA Board of Trustees should vote to set annual clean energy goals for the years 2018 – 2030, for both renewables and efficiency, that are consistent with the New York State Clean Energy Standard and New York State Energy Plan. A process should be established where progress in achieving those annual clean energy targets (both renewables and efficiency) would then be reported at public meetings of the LIPA Board of Trustees and also provided to the DPS-Long Island office to enhance confirmation of the data and transparency of the process.	The Sustainability In at Molloy College
Lastly, as the IRP is implemented, there will be a need to ensure that the integration of renewables into the electric grid is accomplished with a balanced portfolio of renewable energy and efficiency technologies (residential solar, utility-scale solar, geothermal, demand reduction, in addition to offshore wind). A balanced, diversified and distributed renewable energy generation portfolio represents the best way to meet the clean energy goals.	The Sustainability In at Molloy College
IRP condemns Long Islanders to the most expensive power in the United States and to lower air quality. Port Jefferson is strategically well suited to enhance air quality with an efficient combined cycle plant that would reduce the use of power from dirty inefficient plants and peaker plants	Bruce Miller
Port Jefferson commissioned the London Economics study that documents a savings to all Long Islanders of \$200 million per year (perhaps more by this time) can be had by repowering Port Jefferson with a modern combined cycle plant (see study attached). A plant of this type would be the cleanest burning fossil plant and the most efficient, and thus highly competitive with the Caithness plant in Yaphank .	Bruce Miller

Governor Cuomo brought PSEG to Long Island because LIPA was untruthful, corrupt and, essentially, ungovernable. LIPA has made statements full of platitudes about being responsible to the rate payers and not Port Jefferson Residents. LIPA has never been responsible to its ratepayers. LIPA began its existence by permitting KeySpan Energy to take \$3 billion off Long Island shortly after Governor Mario Cuomo negotiated the Shoreham settlement. (See attached). In 2013 LIPA negotiated a settlement with National Grid to shift the burden of clean-up of brown field sites from National Grid to the ratepayers. This is not a corporation that is looking toward the best interests of rate payers. More recently, LIPA's board declared that LIPA could no longer go bankrupt. In the event of bad management practices, all costs of recovery would be paid by the rate payers. Again, LIPA is not a rate payer friendly utility.	
First: The high cost of electricity is not due to the taxes paid to municipalities and school districts as LIPA States.	Bruce Miller
Second: Port Jefferson residents are not greedy and hungering for continued subsidies. We want LIPA to negotiate in good faith - they are not. Our school boards in Port Jefferson, continuously subsidized the education of surrounding districts for a wide radius despite the bitter objection of a minority of our tax payers.	Bruce Miller
Third: We at Port Jefferson are requesting in the strongest possible terms that you cause LIPA to cease and desist with these false statements that are only public relations ploys that LIPA uses to shift blame away from its long history of mismanagement and that shifts the focus to municipalities and school districts. Technically, school districts do not pay certiorari awards retroactively; they pay only going forward after losing a dispute. The county (Suffolk) does pay retroactively. I estimate that the certiorari costs to Suffolk are potentially \$600 million plus dollars and rising. THIS IS A SHOREHAM LEVEL CATASTROPHE IN THE MAKING! A corrupt organization like LIPA may not have any particular care in bankrupting all of Suffolk County but you should and we believe you represent Governor Cuomo cares as well. (See the attached Cambridge Economics study regarding the loss of economic potential to all of Suffolk County - attached.)	Bruce Miller
Port Jefferson has negotiated in good faith and reduced its tax revenue from the Port Jefferson plants by 10%. LIPA has only hard-balled their response and has not even offered the precedent set in the Shoreham settlement or the removal of the Rocky Point properties from the tax roles.	Bruce Miller
The currently approved Rhode Island wind initiative, unfortunately, requires very little New York oversight. We have gotten cost estimates from experts that the cost of Rhode Island wind will be ten times that of a repowered Port Jefferson plant per KWh.	Bruce Miller
We know people in the Hamptons do not like overhead lines - they have frequently stated this. I have seen no evidence of the cost of underground cable from Amagansett to the Shinnecock in LIPA's cost analysis. This will probably bring the cost of completion well over 2 billion dollars.	Bruce Miller
We at Port Jefferson are very environmentally conscious. (We greatly resent LIPA's characterizations to the contrary.) We have joined with local civics and environmental organizations to support roof-top and parking lot solar, and have formally communicated with Governor Cuomo in this regard. Long Island's grid is 100% effective and can support 107% of Long Island's power needs. However, Large solar farms that LIPA is approving are expensive and not cost friendly to ratepayers. They harbor hidden costs of additional and not needed infrastructure. This parallel, solar farm infrastructure is an unconscionable cost to rate payers. I am paying taxes to Brookhaven Town, Suffolk County and New York State to preserve open land and farmland and LIPA is destroying open land with its decision making. A small combined cycle plant in Port Jefferson would balance generation when the wind was not blowing or the sun is not shining.	Bruce Miller



LIPA needs to stop whining about taxes. It agreed to these taxes at its inception when shareholders in LILCO received full value for their previously depressed stock. A previous CEO, Richard Kessel affirmed this commitment in letters to Sen. LaValle and Flanagan. Essentially, what they advocate is socialism or crony capitalism.	Bruce Miller
Finally, the corrupt environment of securing 20 year contracts for electricity has been devastating to Long Island Ratepayers. This does not exist in the rest of New York or the rest of the United States. The power plant in the harbor of Port Jefferson is a public resource. The PSC can no longer permit its value to be withheld from Long Island rate payers. The PSC must demand that National Grid must repower or sell this property. LIPA has the authority to do this.	Bruce Miller
Our industry contributes \$55 million to the NY economy. We at LICFA implore you to not approve the IRP as it is currently written. We request the Commission to conduct a series of field hearings at several of the fishing ports of Long Island that would be affected by the Integrated Resource Plan (IRP) of PSEG and LIPA, including Montauk and Shinnecock, before any further decisions of the commission are made. Commercial fishing communities are having their livelihoods destroyed by the push for offshore wind "green" energy. NYSEDA organized a stakeholder group to produce a report, but fishermen were not invited to be part of the stakeholder group. LIPA/PSEG and NYSEDA have completely ignored our pleas.	Long Island Commer Fishing Association
NYSEDA organized a stakeholder group to produce a report, but fishermen were not invited to be part of the stakeholder group.	Long Island Commer Fishing Association
They reference Appendix G of the CES regarding mortality to the benthic community, where fish live, breed and migrate: "Siting of offshore turbines may permanently displace habitat for a range of animals, including but not necessarily limited to, finfish, reptiles, amphibians, crustaceans, insects, invertebrates, snails, clams and plants." Pile driving noise that can cause mortality to endangered marine mammals, whales and sea turtles due to injury or disturbance causing them to become disoriented, and risk boat collisions. Normal post construction windmill operations noise between 90 to 115 dB at frequencies that are detectable by marine mammals and fish, interfering with their ability to communicate and may cause them to avoid traditional breeding grounds which ultimately can lead to long term detrimental population effects.	Long Island Commer Fishing Association
Offshore wind is costly, unreliable, and requiring back up from fuel sources 24/7, it is ultimately an industrial assault on the oceans.	Long Island Commer Fishing Association
I am a strong advocate for renewable energy. The village recently received a NYSEDA Grant under the NY Prize program for the design and business planning for a microgrid. We support the Governor and the State's goal to obtain 50 percent of the energy requirements form renewable sources by 2030. As well as the Governor and LIPA's plan to install over 2,400 megawatts of offshore wind.	Mayor Francis Murr; Rockville Centre

<p>Rockville Centre Electric is the oldest electric utility on Long Island. The village is served by 3 transmission lines that are owned by LIPA and operated by PSEG LI. Rockville Centre Electric owns and operates a small powerplant that is used to generate power when customer energy requirements exceed import capabilities during peak periods and during storms. Due to the variable and intermittent nature of solar and wind resources; additional fast start generation will be required. We believe that the supply side mix should include fast start generation sources with high energy and ultra-low emissions capabilities. We think our village can play a role--Our recommendation is that LIPA conduct a feasibility study to evaluate the installation of one or two peaking generators in the Village of Rockville Centre. The village would take some of the output and the rest would go to LIPA. There are a couple of potential sites that we recommend to be evaluated including the Rockville Centre Power Plant and a substation at the west end of the village, which have an existing gas supply and interconnection points. The recommended solution would help LIPA offer more affordable energy future for both their rate payers and Rockville Centre businesses and residents. This option will lower property taxes for the Long Island Power Authority's ratepayers because these fast start units would be installed on village and/or other utility owned property and would not be subject to property taxes, and it reduces need for older polluting generation.</p>	<p>Mayor Francis Murr: Rockville Centre</p>
<p>We are the country's largest independent wind company. We are in full support of the IRP presented by PSEG Long Island and LIPA. We applaud LIPA's efforts, its leadership, its forward thinking, and focus on cost effective renewables. Invenergy is committed to working towards a clean energy future with LIPA. Invenergy has developed, built, owns, and operates three wind farms in upstate New York and is currently building New York's second largest solar project here in Brookhaven. We have developed power projects almost to the order of 16,000 megawatts over 103 project in just the last 15 years. Governor Cuomo's 50 by 30 commitment is a critical initiative for New York State.</p>	<p>Craig Gordon, Inven</p>
<p>Recently we released a paper called, New York State and the Jobs of Offshore Wind Energy. This industry has potential to create thousands of jobs and careers right here in our backyard on Long Island. An offshore wind power plant brings significant potential for good paying jobs across 74 occupations including: construction trades such as carpenters, cement masons, laborers, electricians, elevator constructors, iron workers, operating engineers, pile drivers, pipe fitters, plumbers, and welders. Also, accountants, divers, engineers, health and safety experts, lawyers, technicians, operators. More than 300 local workers participated in the building of Block Island's wind power plant and that only had five turbines. The LIPA purchase from Deepwater Wind is a commendable start but continued leadership and action is needed. A long-term strategic plan for workforce development must be created and implemented.</p>	<p>Rosalie Drago, Work Development Institu</p>
<p>I represent over 59,000 men and women of the Nassau Suffolk building construction trades that are highly trained and skilled. Looking at wind projects as a great opportunity for our membership. The cost of training of the trades is \$35,000 to \$50,000 a person, at no cost to the contractor or LIPA. The tradespeople pay for that. Trained people know safety measures and avoid fatalities on jobs. This project will produce over 2,000 jobs. Long Island needs these jobs. We worked on the Long Beach Boardwalk and did it under-budget and on schedule.</p>	<p>Richard O'kane, Nas Suffolk Building Trac</p>
<p>In favor of clean energy due to concerns about climate change affecting LI's ecosystems and increasing vectors such as ticks, and health concerns such as her family's asthma and lyme disease.</p>	<p>Shay O'Reilly repres Rebecca Deegan</p>
<p>Representing 250,000 union members and their families on Long Island that support Long Island Power Authority's Integrated Resource Plan, due to construction jobs as well as manufacturing, scientific, and assembly jobs the industry can bring to Long Island. From a 300MW project at the Deepwater site our region can anticipate thousands of jobs, and the development of port facilities.</p>	<p>Bryan Stanton, LI Fe of Labor</p>
<p>Supports IRP and clean energy including wind due to all the benefits. Also supports use of battery storage technology to maximize the benefits of renewables.</p>	<p>Al Fredericks</p>

Agree with IRP and renewables. Plan lacks details and also should be setting goal of 100% renewables since other regions are doing so. Need to upgrade the grid to accommodate more renewables. LIPA/PSEG should put the CUNY map showing which roofs are appropriate sites for solar up on its website. In favor of more electric vehicle deployment. Suggest further RFPs on battery storage, geothermal, and wind.	Lilia Factor, Sierra Cl
We represent approximately 1,300 households on Long Island. Over half of the bird species in North American are climate endangered or climate threatened, so we need to address climate change. However, since 500 birds pass through the Atlantic Flyway, proper siting of wind is key. Developers should look at migratory routes, stopover sites, breeding and nesting sites, and areas where large numbers of birds congregate for feeding or in sensitive habitats such as wetlands. Must make sure projects conform with the Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and the Natural Environmental Policy act. We also oppose solar projects on wooded areas.	Jim Brown, South Sh Audubon Society
In favor of renewables; wife has asthma so wants cleaner air.	Joe Tonini, Sierra Cl
In favor of renewables and swift action on climate change.	Frances Mehling
In favor of renewables and swift action on climate change. CCE does not support repowering of old plants and the resident communities receiving tax benefits need to resolve this issue with LIPA sooner than later. CCE urges LIPA to approve 210MW of additional offshore wind as soon as possible.	Harry Somma, Citize Campaign for the Environment
In favor of solar on rooftops and parking lot carports- both publicly and privately owned lots, not on wooded areas.	Josh Lafazan, Candic the Nassau County Legislature 18th Dist
The older plants are too old to be kept running at all even at low capacity due to the amount of pollution they produce.	John Cameron, LI Re Planning Council
During the hottest days, wind will not blow. Battery Storage is not developed enough to store 400 MW of wind.	John Cameron, LI Re Planning Council
If full capacity of plants is needed to meet summer peaks, it should be stated in the IRP and the amortized capital costs of repowering and efficiency savings be stated. If full capacity is not needed, then reduced capacity alternates should be considered along with their reduced capital costs and efficiency savings.	John Cameron, LI Re Planning Council
Though the plan says a 35% reduction in GHG and 90% NOx reduction could be achieved by repowering, LIPA decided to continue to use the plant as is but just at a lowered usage. This logic is flawed b/c nitrogen is such a big problem in terms of smog formation and N deposition into waterways.	John Cameron, LI Re Planning Council
The release of heated water into surrounding waterways negatively impacts marine life. Current technology could address this.	John Cameron, LI Re Planning Council
IRP fails to credit the reduced operating costs due to increased efficiency of repowered plants. Also, level of reliability is assumed to be the same as a new combined cycle plant for the next 20 years	John Cameron, LI Re Planning Council
Resiliency—Barrett is 2 feet below required elevation and new plant would be 4 feet higher than current elevation.	John Cameron, LI Re Planning Council

LIPA is trying to reduce its property tax burden while continuing to pollute local areas. They claim tax burden is 3x that of national average when it is actually 4x.	John Cameron, LI Re Planning Council
Loss of jobs and related revenues from not repowering plants which would mean local jobs. Areas that supply power through the cables benefit from the related economic activity.	John Cameron, LI Re Planning Council
Plan should evaluate vulnerability of plants to terrorism and also cyberterrorism.	John Cameron, LI Re Planning Council
Renewables being pitted against repowering is a false choice. Energy generated by repowered plants would offset the 44% forecasted to be needed from off-island sources in 2030, not the mandated 13% renewables needed. So while we may increase renewables we are also increasing dependence on off-island sources. We should still repower and do both in order to be equitable to affected communities.	John Cameron, LI Re Planning Council
Supports renewables and IRP's efforts to address climate change especially after damaging floods experienced in Hurricane Sandy	Doris Earl Muench
In favor of renewables and swift action on climate change. Urges LIPA to approve 210MW of additional offshore wind as soon as possible. Local industry will provide jobs. More programs needed to engage low income individuals in new clean energy opportunities, e.g. workforce development programs and low interest financing mechanisms	Ryan Madden, LI Prc Coalition
Supports renewables and IRP's efforts to address climate change especially after damaging floods experienced in Hurricane Sandy	Jerry Rivers
Local (LI) people and ordinary citizens should be included in every step of the decision making process. I'm urging Governor Cuomo to appoint peoples' commissioners to the Public Service Commission. In favor of renewables and swift action on climate change.	Peggy Lyons, Social J Committee, Garden Unitarian Universal: Congregation
Supports IRP. Opposes expansion of gas infrastructure in NY. We need to close fossil fuel plants, especially peaker plants. In favor of renewables, battery storage, and anaerobic digested gas. Wants a peoples' commissioner for the PSC.	Kim Fraczek, Sane E Project
Supports renewables and IRP's efforts to address climate change especially after damaging floods experienced in Hurricane Sandy	Nicolas Shearman (r Kim Fraczek)
IRP sets a great example. We call on Governor Cuomo to establish a renewable energy transition fund for communities that will be effected by the transition away from fossil fuel plants.	George Povall, All o Energy
Solar has grown tremendously over the past few years. I applaud LIPA and PSEG for being forward looking and a great partner to the solar industry along the way in making these things a reality. Supports community solar. PSEG must address issue of over-saturated substations.	Tara Bono, Empowe
New York State does not have an independent utility consumer advocate to protect the ratepayer so it is up to the Department of Public service to do that job. I support the CES goals, but we pay high rates and this is a problem especially for the senior population on fixed incomes. Supports EE programs but concerned about profit motivation of Lockheed Martin in contract with PSEGLI.	Sarah Anker, Suffolk Legislature
I support the recent New York State Assembly and Senate passing of the expansion of the Pine Barrens core region to include 800 acres located in Shoreham. I support renewables but not trading "green for green."	Sarah Anker, Suffolk Legislature

It is vital that local jobs be used to build the renewable energy projects. Large renewable energy corporations from outside New York have constructed solar farms in my legislative district with little or no community benefit. These include sPower 60-acre solar farm. And also an Invenergy 180-acre solar farm. Local jobs would help offset the financial burden of the community.	Sarah Anker, Suffolk Legislature
In favor of IRP and related job creation. Transition plan is needed for workers given new types of energy being produced.	Roger Clayman, Long Federation of Labor
We are asking specifically that LIPA approve an additional 210MW of new offshore wind this year under an RFP it will consider next month, specifically in the site where Deepwater Proceedings Wind has made that proposal. This will allow the development of offshore wind energy in our region at a scale where we can see the development of thousands of construction, manufacturing, scientific, and assembly jobs associated with this	Roger Clayman, Long Federation of Labor
60,000 members in NY state. Supports IRP and CES, specifically 2.4GW of offshore wind. Support for action on climate change and green jobs. we support an additional 210MW of new offshore wind.	Lisa Dix, Sierra Club
Support moving away from fossil fuel plants-- property taxes are \$600 million a year to ratepayers. We need a transition for the communities receiving the benefits.	Lisa Dix, Sierra Club
Pro-renewables, reducing air pollutants and greenhouses gases, addressing climate change, fossil fuels are of the past (no repowering/new plants). Renewables good for environment and economy, green jobs.	Kevin Duggan, NYPIF
(see comments from Rosalie Drago above)	Ross Gould, Workforce Development Institute
IRP is historic tipping point report-- EE and RE are successfully stabilizing previous electric usage growth-- what we've been wanting to hear for years. Electricity from new or refurbished plants, large power plants, would cost as much or more than current renewable energy sources, and future renewables costs are expected to decline even further. Good news that more battery storage and grid upgrades will be needed instead of peaking plants. In favor of 2.4GW offshore wind goal. Looks like we are aiming for 100% - good idea.	Gordian Raacke, REL
80,000 members in NY State. Opposed to repowering old plants. We need new clean technology. LI is front line of effects of climate change so we have ethical obligation to address it.	Adrienne Esposito, C
Pro-renewables, will save ratepayers money.	Susan Brockman, All Energy
long time anti-Shoreham activist, opposed to nuclear power and in favor of renewables. Good to see the changes occurring in the right direction. This IRP is what we've been wanting to hear for years.	Peter Maniscalco, Sr Life
Stony brook student, concern about climate change and associated storms and rise of lyme disease. Renewables will bring green jobs.	Bridget Foley
In favor of 100% renewables, geothermal, eclectic vehicles, battery storage, action on climate change. Geothermal can help address summer AC peak loads- saves 40-50%.	Billii Roberti, Mothe Front
It is also important to consider carefully which peaking units should be modernized and which should be retired. I agree that the 2010-generation RFP should be canceled with no award.	Billii Roberti, Mothe Front
In favor of IRP, and new job creation associated with Deepwater wind project.	Frank Ippoliti, Millw Machinery, Local Un and the NYC District of Carpenters
thirty partner organizations including wind developers, environmental nonprofit groups, and academic institutions. Supports IRP, in favor of offshore wind and new job creation and economic investments associated with local projects.	Liz Gordon, NY Offsh Wind Alliance



Is an electrician and was public official during Sandy. Long Island faces 3 significant challenges: economic viability, environmental sustainability, and social equity-- this IRP addresses all. USGBC supports it. Great success to see load flat lining after years of EE and RE efforts. Repowering may be most immediate but is not a good long term solution— believes local host communities can come up with a better solution.	Sammy Chu, USGBC
(See written submitted comments above. ) We do have a better utility structure now than we did during Hurricane Sandy- things are operating much better. ( <i>Note: Neal was a LIPA Trustee 2009-2013 that voted in favor of PSEG during that time.</i> ) DPS did good job during rate case and DPS's role in ensuring that PSEG & LIPA are operating in a manner consistent with sound utility practice is important. Thank utility for transparency. This IRP is what we've been wanting to hear for years.	Neal Lewis, Sustaina Institute at Molloy C
Will the Integrated Resource Plan use the clean energy standard as its starting point and overarching basis? If so, that is good. As of a few years ago, renewables was not a key focus and was looked at as just a high cost premium product that might be pursued. I had previously been in favor of new plants because they are cleaner and more efficient but given the latest information, repowering and new fossil fuel plants does not make as much	Neal Lewis, Sustaina Institute at Molloy C
I did want to mention the criticism that's been raised about the lack of hard numbers in the plan and the competitive bid process. LIPA is following the right process. You can't predict future prices of renewables and so you can pick the best projects follow a competitive process and they are going to meet these goals in the most cost effective way.	Neal Lewis, Sustaina Institute at Molloy C
The plan should clarify annual interim goals leading up to 2030. Should be clearer what the plan is for the mix of renewables- how many MW of solar vs wind. I'd like to see more about that supply diversity and more about annual goals to ensure implementation. Supports solar carports as part of mix. Shouldn't all be wind. The 400MW goal set by Board several years ago has still not been reached.	Neal Lewis, Sustaina Institute at Molloy C
Supports renewables and action on climate change. Governor Cuomo should establish a renewable energy transition fund for communities that will be effected by the transition away from fossil fuel plants.	Karen Miller, All Our
Research shows that people with more money consume more energy, regardless of political affiliation. People tend to follow trends their friends/neighbors do, so we need leadership to show us the new ways of using energy. Federal government should stop oil subsidies. Supports plan and action on climate change.	Jean Boucher, Post-graduate student, Stony Broo
This IRP is what we've been wanting to hear for years. Given the illogical indifference to climate change and air pollution issues at the federal level, what we do in NY is very important in terms of leadership.	Bob Dibenedetto, Hi Planet.
I am a member of the Suffolk County Cancer Prevention and Health Promotion Coalition [task force] which is concerned with public health impacts on the citizens of Suffolk County. LI does not have as good air quality as it could have. 2.6 million people on this planet die every year from air pollution—from heart disease, stroke to COPD to respiratory infections and millions of cases of asthma and premature births. Not future- right now according to the World Health Organization 150,000 people die every year as a result of climate change. Clean energy is a win-win.	Bob Dibenedetto, Hi Planet.
Pro nuclear, do not shut down Indian Point	Charles Hersch
Move away from old technology towards clean technology is good. Issue with procurement process- PSEG's apparent inability to develop a competitive and fully transparent procurement process for distributed resources is a big problem. I wrote about this in the Utility 2.0 proceeding that was abruptly terminated in the middle. It was never really taken to completion in the manner that the Public Service Commission normally does.	Thomas Bjurlof
Though the electric industry is currently networked, this network may not be needed for energy so much in the future (due to residential renewables) as it is for reliability and resilience. that's where the distributed system comes in. I think that LIPA should probably begin to look at encouraging developments happening in California -- In particular, the Sacramento Municipal Utility District, SMUD, that has begun to develop an integrated distributed energy resource plan.	Thomas Bjurlof

Pro-renewables, reducing air pollutants and greenhouses gases, addressing climate change. Renewables good for environment and economy, green jobs.	George Ginsburg
50% renewable goal is great, but not enough. More renewables, solar, like they do in Germany.	Jim Gross
The worst offenders on the south fork are the McMansions - I do energy audits of residences. I've seen electric bills of \$1,000 or \$2,000 a month in a 6,000-square-foot house. There's no reason why we can't go into these super energy inefficient houses on the south fork of Long Island and start doing serious energy conservation.	Daniel Karpen
We also may have to change the rate schedule. While there is a mandatory time of day electric rates for the large users, it may be necessary to increase electric costs for the summer peak one or two dollars a kilowatt hour to discourage these homes from wasting electricity. LEDS are better than fluorescent light bulbs. We've got to require that all new houses built on Long Island be net-zero houses.	Daniel Karpen
Good that usage is going down. In favor of geothermal. Surprised that energy usage calculations predict a decline given the probably increase in electric vehicles and geothermal. Supports renewables and not building new fossil plants. Solar energy credits should remain as part of the account rather than being distributed at the end of anniversary year.	Charlie Avalos, Citizε Climate Lobby

**Matter No. 17-00696 - In the Matter of Long Island Power Authority and PSEG Long Island LLC Integrated Resource Plan**

Further Public Comments	
<p>Anbaric Development Partners, transmission business; One of Anbaric’s predecessor companies helped spearhead the development of the Neptune line. Anbaric believes the development of LI’s offshore resources needs thoughtful transmission planning and development of a cohesive offshore transmission system. Requiring each offshore project developer to apply for its own interconnection service, apply for the required permits and build its own “generator lead” is unwise. A well planned transmission system can achieve savings through shared transmission routes to shore and boosting competition. Germany, Texas, the United Kingdom have successfully developed large amounts of wind power in a short time period following this approach.</p>	<p>Anbaric Development Partners</p>
<p>I am vehemently opposed to any development of offshore windfarms in the NY bight . Fishing ports from Massachusetts to NJ rely on the waters off of Long Island for a significant part of their activity. The area is of particular importance for sea scallops, squid , summer flounder , scup , black seabass , monkfish , and skate as well as many other species .The various ports including Montauk and Hampton Bays landed a combined dockside value of \$980 million dollars of seafood in 2015. Existing, well paying jobs could be lost because of the loss of prime fishing grounds to offshore windfarms. Long Island already has a glut of power through at 2030. Every rooftop and parking lot should have solar panels installed instead.</p>	<p>Chris Scola, Fishing Vessel Rock &amp; Roll III</p>
<p><i>(Comments previously recorded)</i></p>	<p>Joe Schroeder, Suffolk County</p>
<p>I have serious concerns about climate change. Oil and coal are both nonrenewable and finite. When they spill into bodies of water (whether rivers, lakes, oceans) it impacts the fish we humans ultimately eat. Oil has been a factor in wars fought throughout history. Solar, wind, hydroelectric and geothermal energies have no supply limits.</p>	<p>Nancy Schulman</p>
<p>Opposed to National Grid cutting 350 acres of trees for a solar farm at Shoreham. The Shoreham lands should be designated as pine barren lands forever protected from development.</p>	<p>Patrick and Michele Dougherty</p>
<p>I support the build out of the solar farms. The green benefit from the solar farms will far outweigh the loss of the trees.</p>	<p>Sunil &amp; Vindhya Kamath</p>
<p>Say no to deepwater wind and their ocean destroying practices.</p>	<p>Wesley Peterson</p>