2021 PROPOSED BUDGET

November 18, 2020

LIPA
Long Island Power Authority

STRATEGY

- ✓ **CLEAN:** Carbon-free, reliable energy
- ✓ **LEAN:** Electricity at the lowest possible cost
- ✓ **CUSTOMER-FIRST:** Focused on customer needs

STRATEGY TO BE CLEAN

MEETING STATE'S CLEAN ENERGY GOALS

Meeting LIPA's share of New York's aggressive climate goals means providing Long Island with **100 percent carbon-free energy by 2040, as well as reducing carbon emissions in transportation and heating through beneficial electrification.**

LIPA will need:

- 750 MW of distributed solar by 2025
- 30,000 heat pumps by 2025
- 180,000 EVs by 2025
- 375 MW of battery storage by 2030
- 1,125 MW of offshore wind by 2035

Clean Energy Scorecard

705 MW of **750** MW of distributed solar by **2025**

5,250 of **30,000** customer-sited heat pumps by **2025**

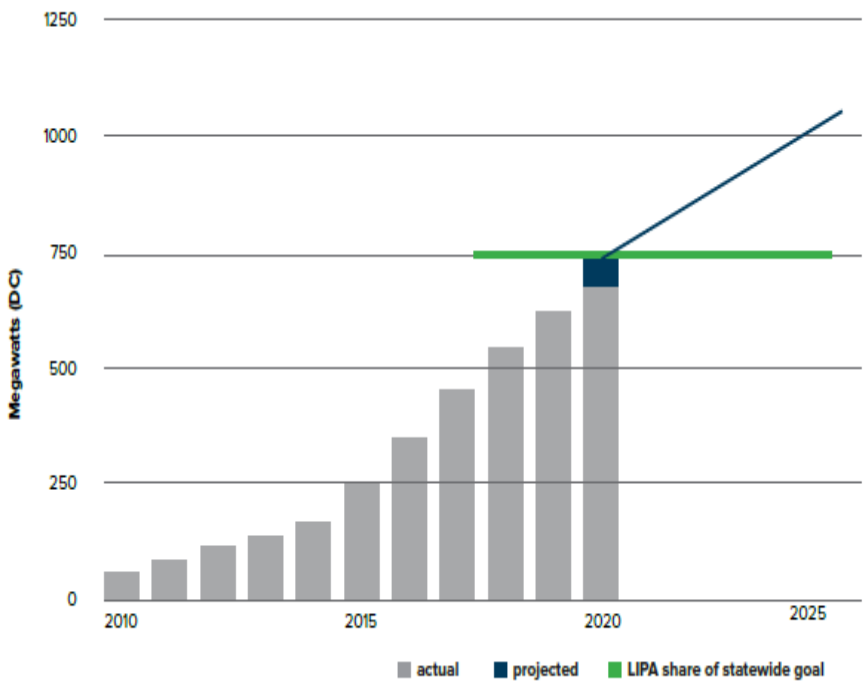
17,000 of **180,000** light duty electric vehicles by **2025**

12.8 of **375** MW of battery storage by **2030**

130 MW South Fork Wind Farm plus **82** MW NYSERDA credits towards **1,125** MW offshore wind by **2035**

SOLAR SUCCESS

Long Island Distributed Solar Capacity



BENEFICIAL ELECTRIFICATION PROGRAMS

LIPA's Electrification Program Highlights

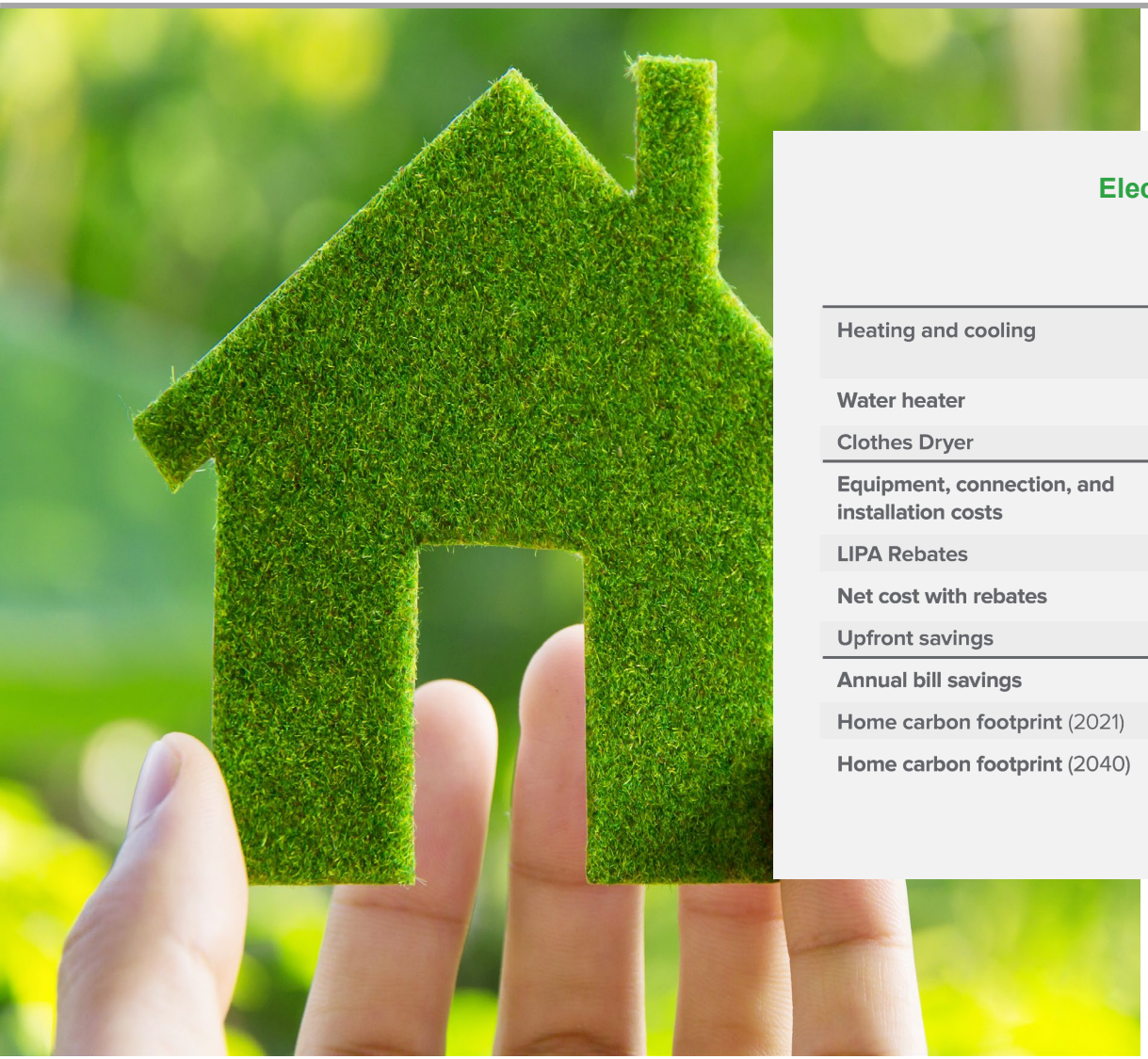
ELECTRIC VEHICLES

- 25 Percent **EV Overnight "Smart Charging"** Discount (continued from 2020) plus new time-of-day rate options (new in 2021)
- Complimentary infrastructure upgrades for over **275 public and workplace chargers** (new in 2021)
- $500 **EV Residential Charger Rebates**
- Demand incentives for **Fast Charging Stations**
- Up to $2,000 New York State **Drive Clean Rebate**

MODERN ELECTRIC HEATING

- 15 Percent **Electric Discount** for Winter Heating
- **Heat Pump Rebates**
  - > $2,500 to $2,800 for Oil and Gas Heat Conversions (+ 50% for low-income households)
  - > $3,600 for New Construction (+ 50% for low-income households)
  - > $750 for Hot Water
  - > $750 for Pool Heaters
- $8,000 Rebate for **Geothermal Systems**

BENEFICIAL ELECTRIFICATION: NEW SINGLE-FAMILY HOME ON LONG ISLAND



Electrification Saves Money

	Natural Gas	All-Electric Home (Green)
Heating and cooling	Gas furnace and central air conditioning	Cold climate heat pump
Water heater	Gas water heater	Heat pump water heater
Clothes Dryer	Gas	Heat pump
Equipment, connection, and installation costs	$22,973	$22,418
LIPA Rebates		$5,950
Net cost with rebates	$22,973	$16,468
Upfront savings		**$6,505**
Annual bill savings		**$765**
Home carbon footprint (2021)		**-21%**
Home carbon footprint (2040)		**-100%**

CLEAN ENERGY ACCOMPLISHMENTS AND GOALS

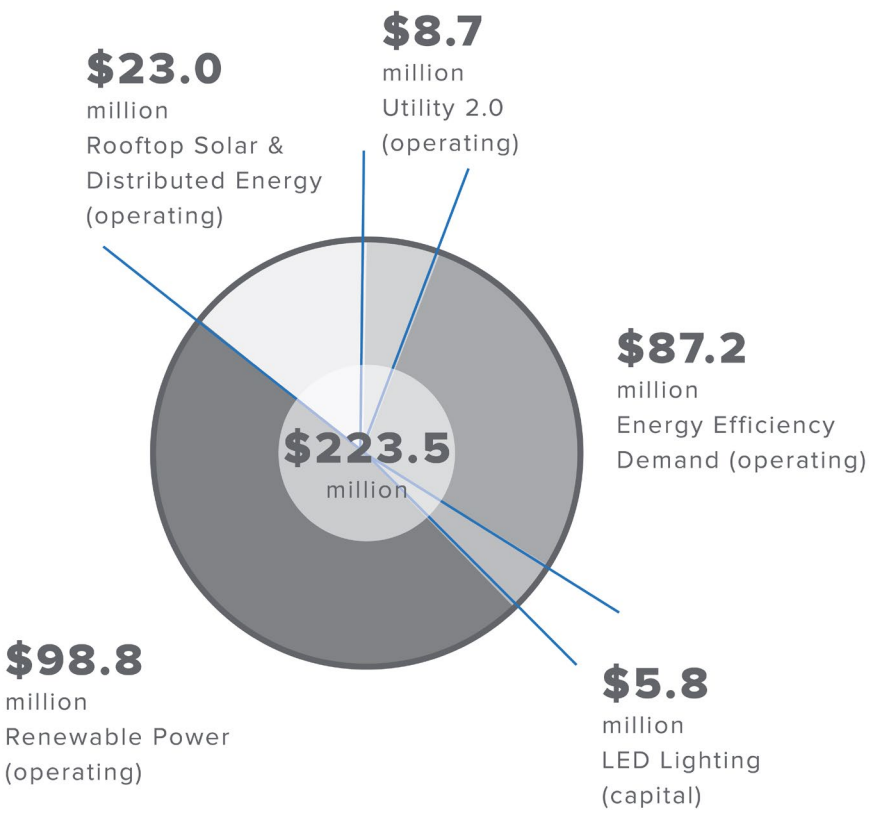
In 2020, LIPA advanced its clean energy goals by:

- Supporting the permitting of the transmission cable for **New York's first offshore wind project**
- Studying the transmission reinforcements required for **9,000 MW of offshore wind**
- **Retiring 68 MW of peaking units** at Glenwood Landing and West Babylon in 2020 and 2021
- **Studying the retirement of an additional 400 to 600 MW** of steam and peaking units by 2022
- Signing a power purchase agreement for **23 MW solar project in Calverton**
- Launching Solar Communities to expand **community solar access for low-income residents**

In 2021, LIPA will be:

- Updating the **Integrated Resource Plan** to determine the least cost mix of generation and transmission to ensure continued system reliability and an orderly transition from fossil fuels
- Issuing a request for proposals for **175 to 200 MW of utility-scale energy storage**
- Working with the NYSERDA to procure **100 to 200 MW of Renewable Energy Credits**
- Adding new capability for customers to **finance heat pumps** on their utility bill

2021 BUDGET FOR CLEAN ENERGY



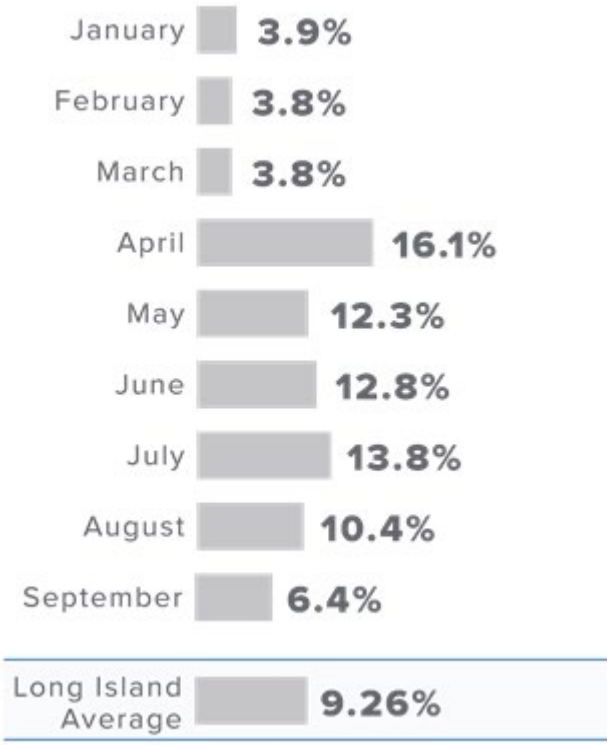
2021 Budget Continues Clean Energy Investments:

- **$98.8 million for utility-scale renewable purchases**, including energy from solar farms in Calverton, Kings Park, Riverhead, Shoreham, and Upton
- **$87.2 million for energy efficiency and distributed energy programs**
- **$23.0 million for residential and commercial solar and distributed energy systems**
- **$8.7 million for Utility 2.0 programs**, including new EV Make Ready Charging Infrastructure, residential EV charging rebates, EV fast charging stations, heat pump pilot program, and more
- **$5.8 million for new LED lighting**, to replace conventional light fixtures for our commercial customers

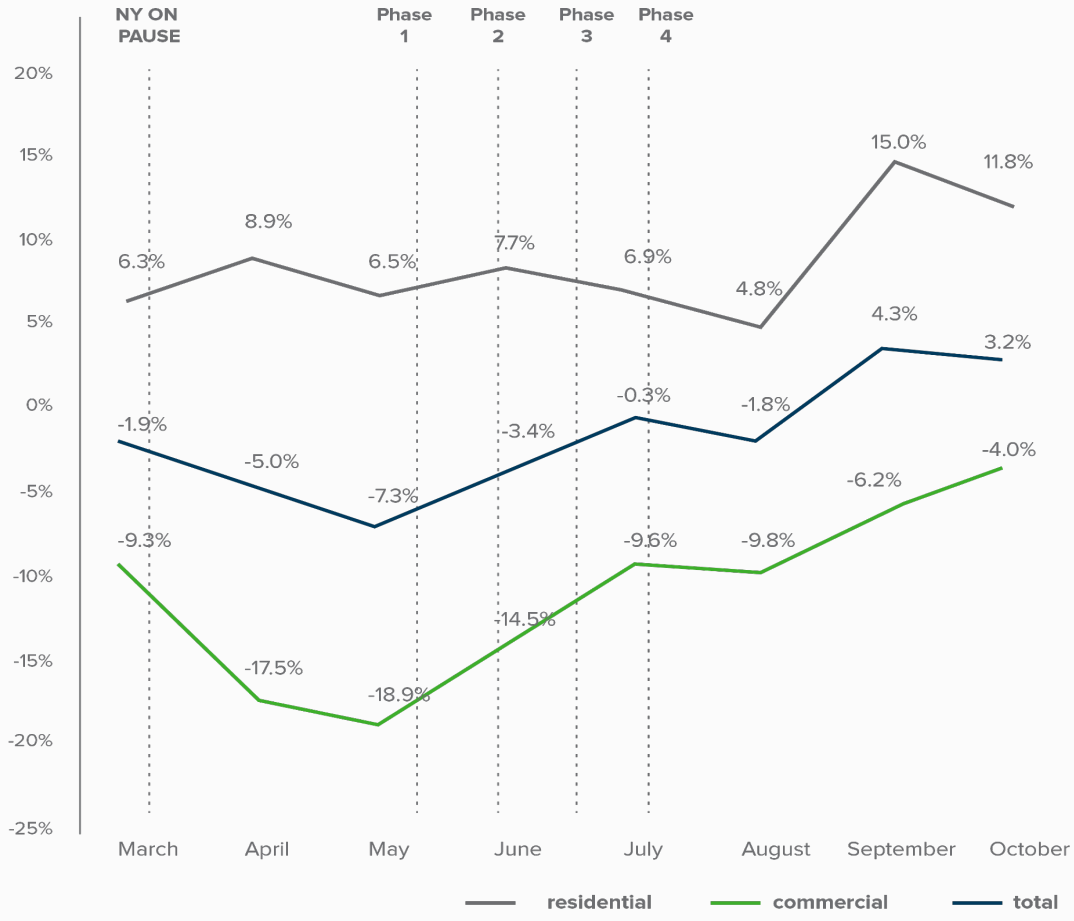
STRATEGY TO BE LEAN

COVID-19: UPDATE

Unemployment Rate on Long Island



Weather Adjusted Electric Sales: March – October 2020



COVID-19: BELT TIGHTENING

In May, to help customers manage their rising costs, LIPA and PSEG Long Island announced several **belt-tightening actions** for 2021, 2022, and 2023.

- Deferring **$60 million** of existing projects from the Capital Budget from 2021 and 2022 and **deferring $150 million** of new Capital initiatives
- Cutting **$15 million** from the Operating Budget and **deferring $80 million** of new operating initiatives
- Refinancing outstanding bonds for an estimated **$70 million** of present value interest savings
- Retiring **68 megawatts** (MW) of peaking plants and **400 to 600 MW** of steam generation between 2020 and 2022

$718 MILLION SAVINGS TO HELP MANAGE CUSTOMER BILLS

Why Do We Operate Lean?

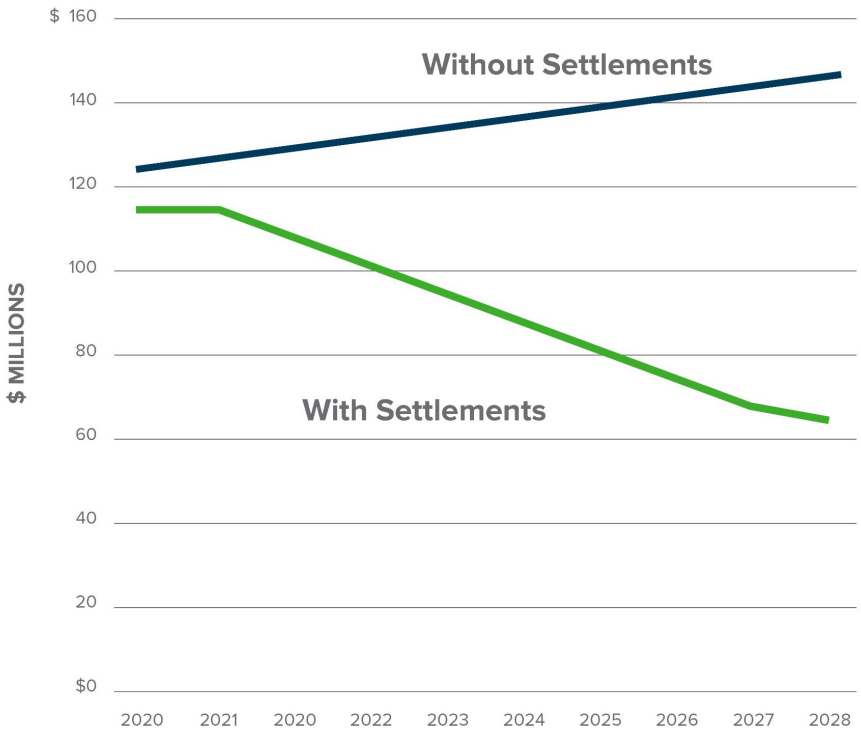
- **Goal:** reduce cost in less-value areas and invest in customer-facing initiatives
- **Savings:** LIPA Initiatives will save customers **$718 million** in 2021
- Amounts to 20% of electric bills – **nearly *$32 a month*** for an average residential customer

Customer Savings in 2021 from Operating Lean

	Millions
Discontinuing investment in combined cycle plants	$353
LIPA Reform Act 2% Tax Cap	$213
Refinancing existing debt	$30
Renegotiating expiring power purchase agreements	$48
Investing in cost-effective energy efficiency	$19
Power plant property tax savings	$13
Reduction to gas transportation costs	$12
Smart Meter savings	$11
Operating savings and improved productivity	$10
Power plant pension and retirement savings	$8
Power plant retirements	$1
Total	**$718**

POWER PLANT SETTLEMENTS

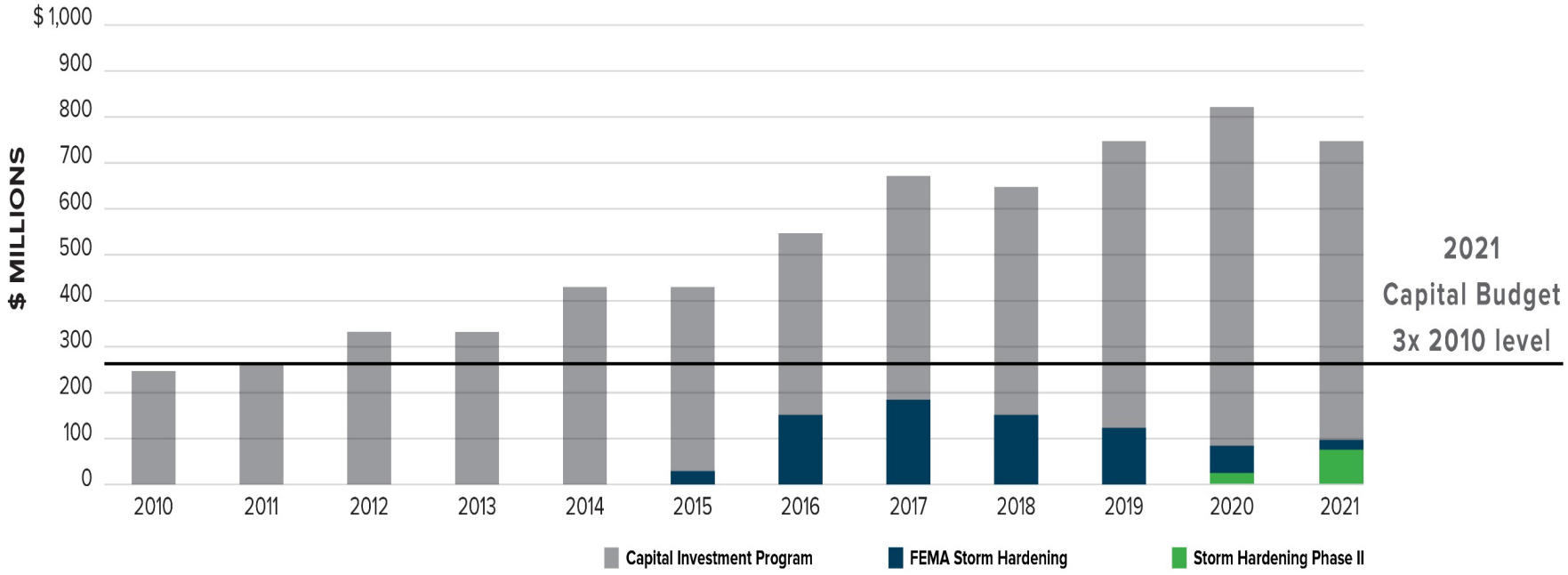
Power Plant Tax Settlements Will Save $364 Million Through 2028*



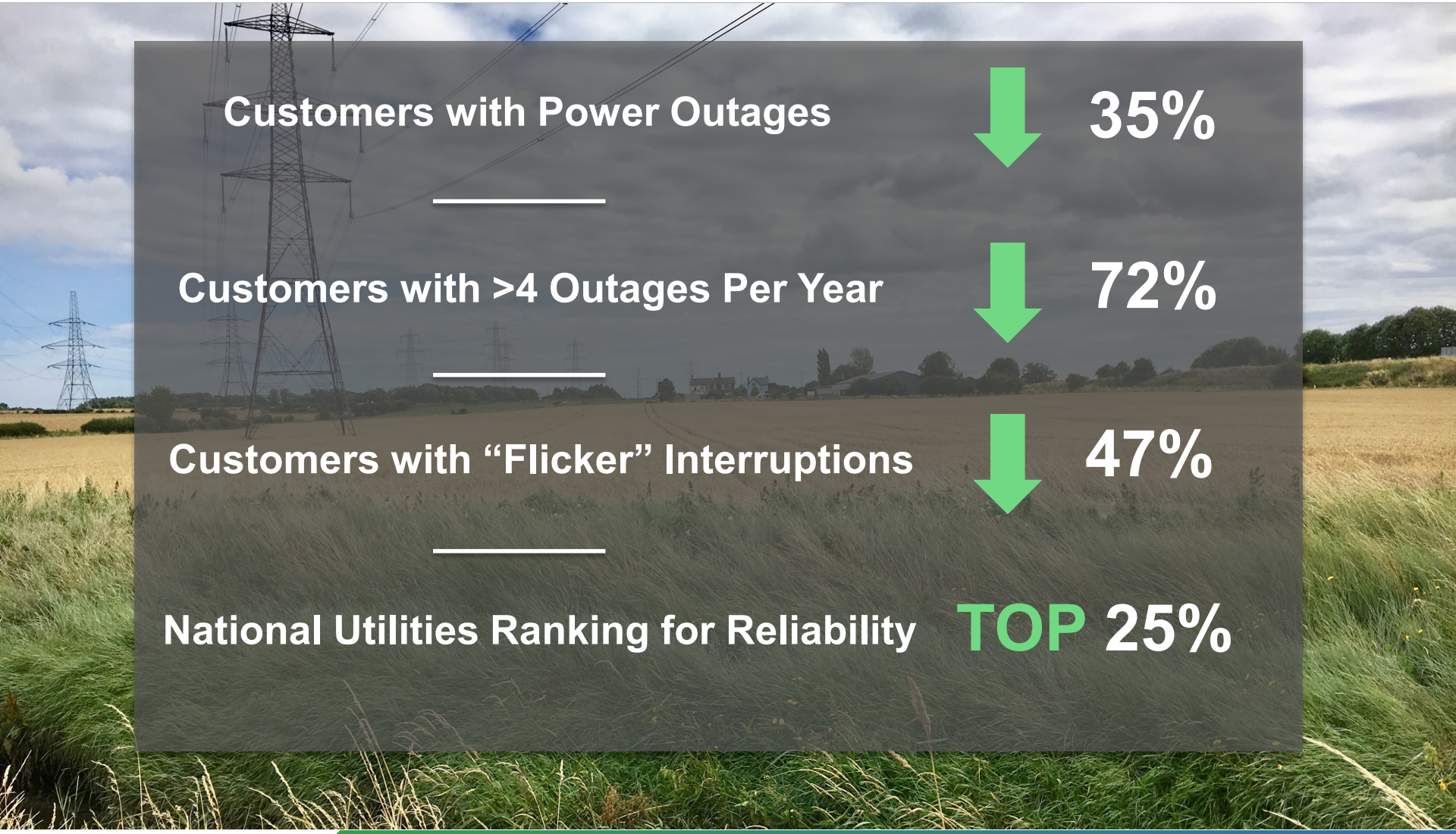
[1] Savings from the Port Jefferson Power Station and Northport Power Station settlements

STRATEGY TO BE CUSTOMER-FIRST

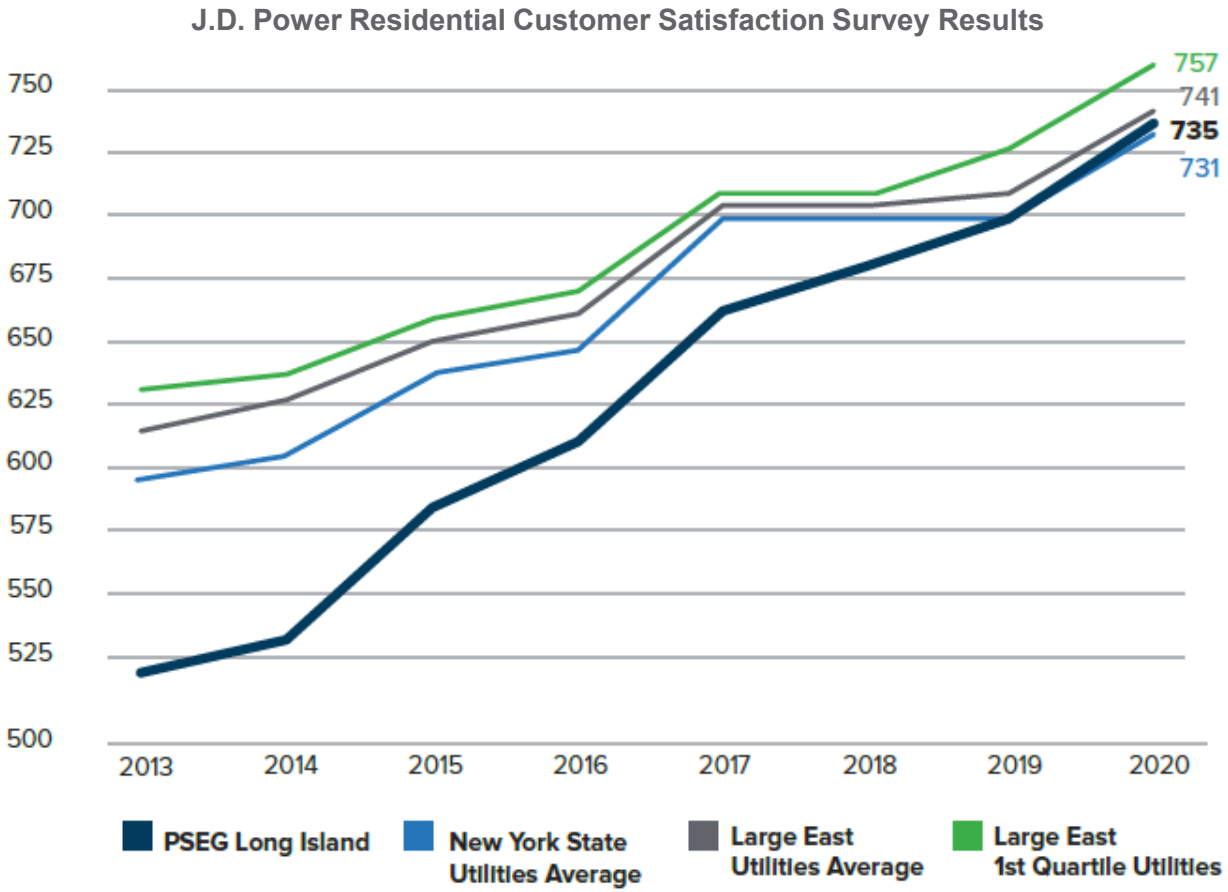
RECORD $4.2 BILLION INVESTMENT IN RELIABILITY SINCE 2016



RELIABILITY INVESTMENTS = REAL RESULTS



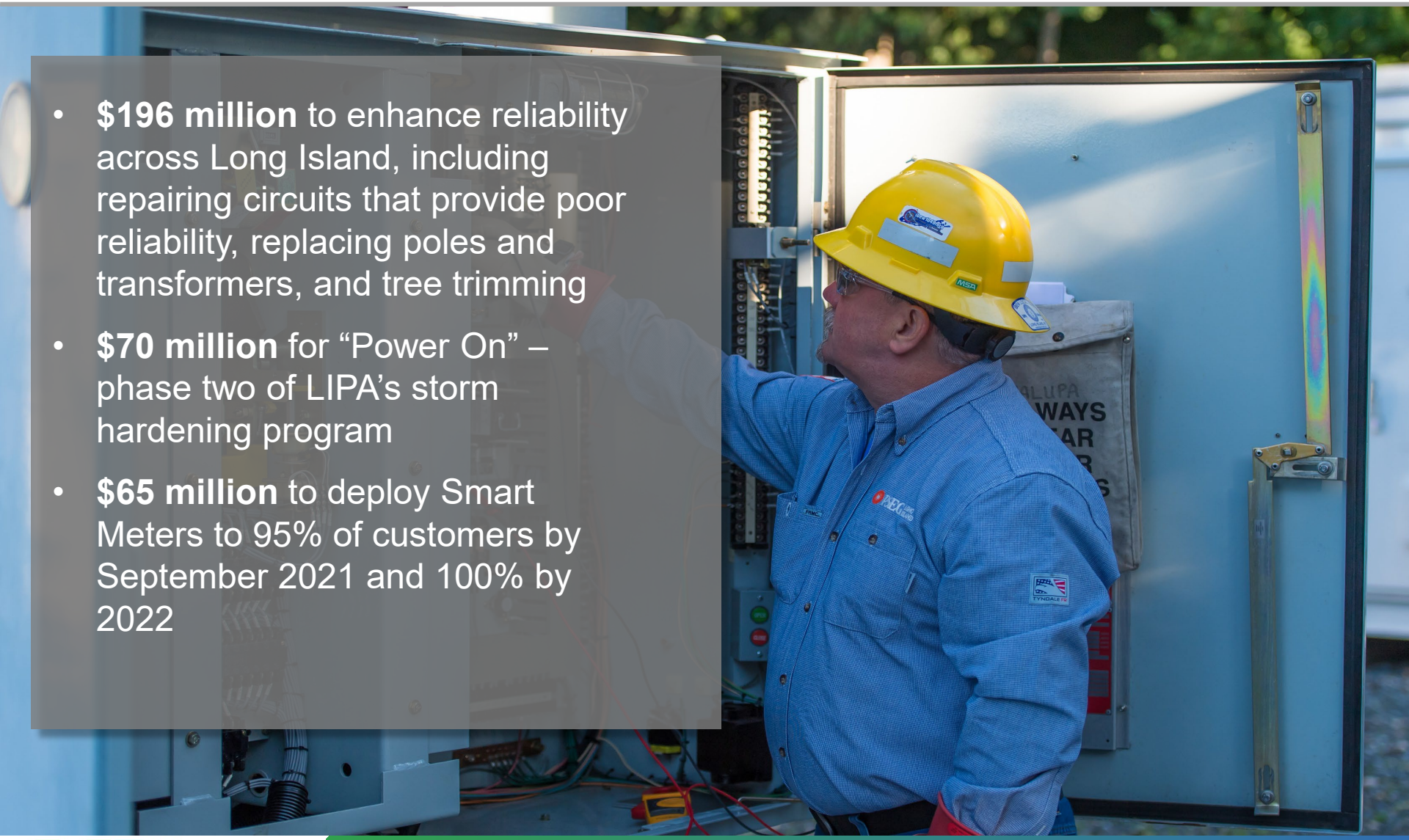
CUSTOMER SATISFACTION CLIMBS 42%



- Board Policy calls for top 25% customer satisfaction by year end 2022 – still work to do, especially after Tropical Storm Isaias

Source: J.D. Power Residential Customer Satisfaction for New York State and Large East Utilities

2021 BUDGET INVESTS IN CUSTOMER FIRST



- **$196 million** to enhance reliability across Long Island, including repairing circuits that provide poor reliability, replacing poles and transformers, and tree trimming
- **$70 million** for "Power On" – phase two of LIPA's storm hardening program
- **$65 million** to deploy Smart Meters to 95% of customers by September 2021 and 100% by 2022

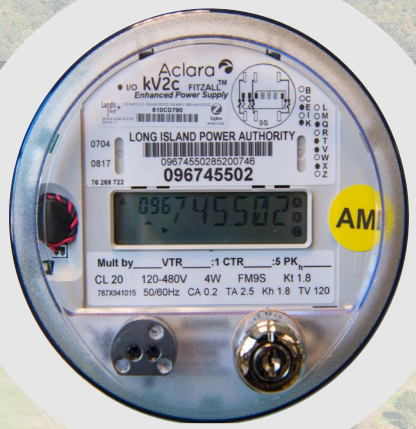
BUDGET BY THE NUMBERS

2021 BUDGET GOALS

LEAN

CLEAN

CUSTOMER-FIRST



2021 BUDGET BY THE NUMBERS

2021 Proposed Operating and Capital Budget

2021 OPERATING BUDGET ($ thousands)	
Operating Revenues	3,662,090
Grant & Other Income	58,674
Total Revenues and Income	**3,720,764**
Power Supply Costs	1,545,928
Delivery Costs	776,030
PILOTs, Taxes & Fees	569,727
Interest Payments	373,004
Debt Reduction & OPEB	456,074
Operating Budget	**3,720,764**
Fixed Obligation Coverage	
LIPA Debt Plus Leases	1.35x
LIPA & UDSA Debt Plus Leases	1.22x

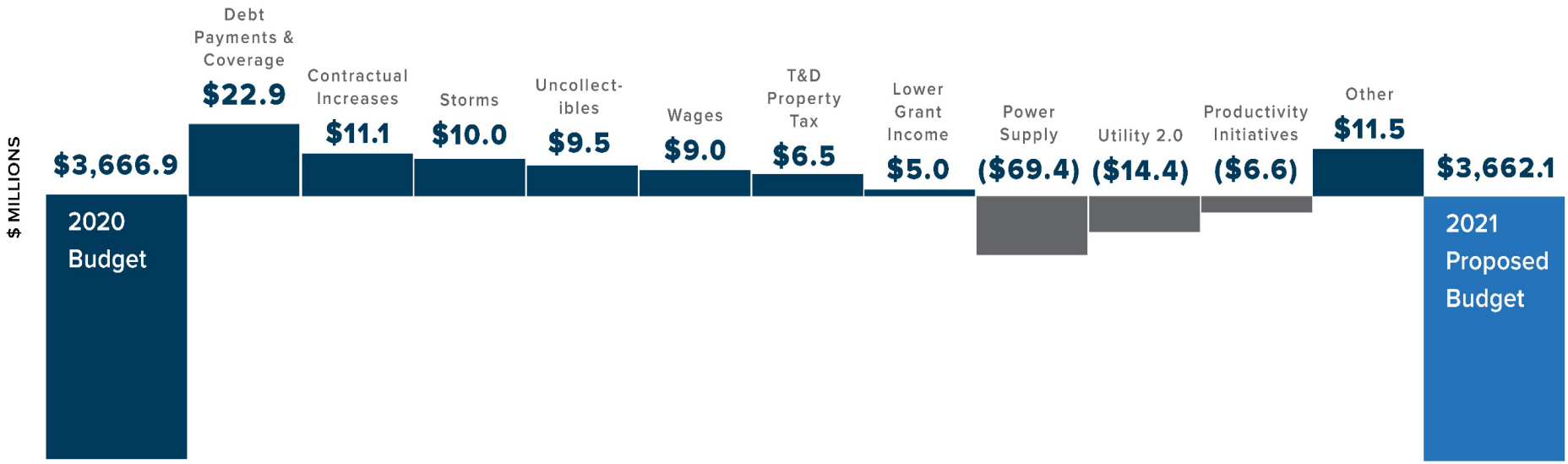
2021 CAPITAL BUDGET ($ thousands)	
Capital Projects	671,279
FEMA & PSEG Long Island Storm Hardening	94,414
Capital Budget	**765,693**
Funding from Operating Budget	192,330
FEMA Grant	21,973
Debt Issued to Fund Projects	551,390
Funding Sources	**765,693**
Percent of Capital Projects Funded from Debt	
Including FEMA Projects	72%
Excluding FEMA Projects	74%

Note: The Operating Budget shown is based on revenue requirements. Taxes on power supply have been reclassified to PILOTs, Taxes, and Fees.

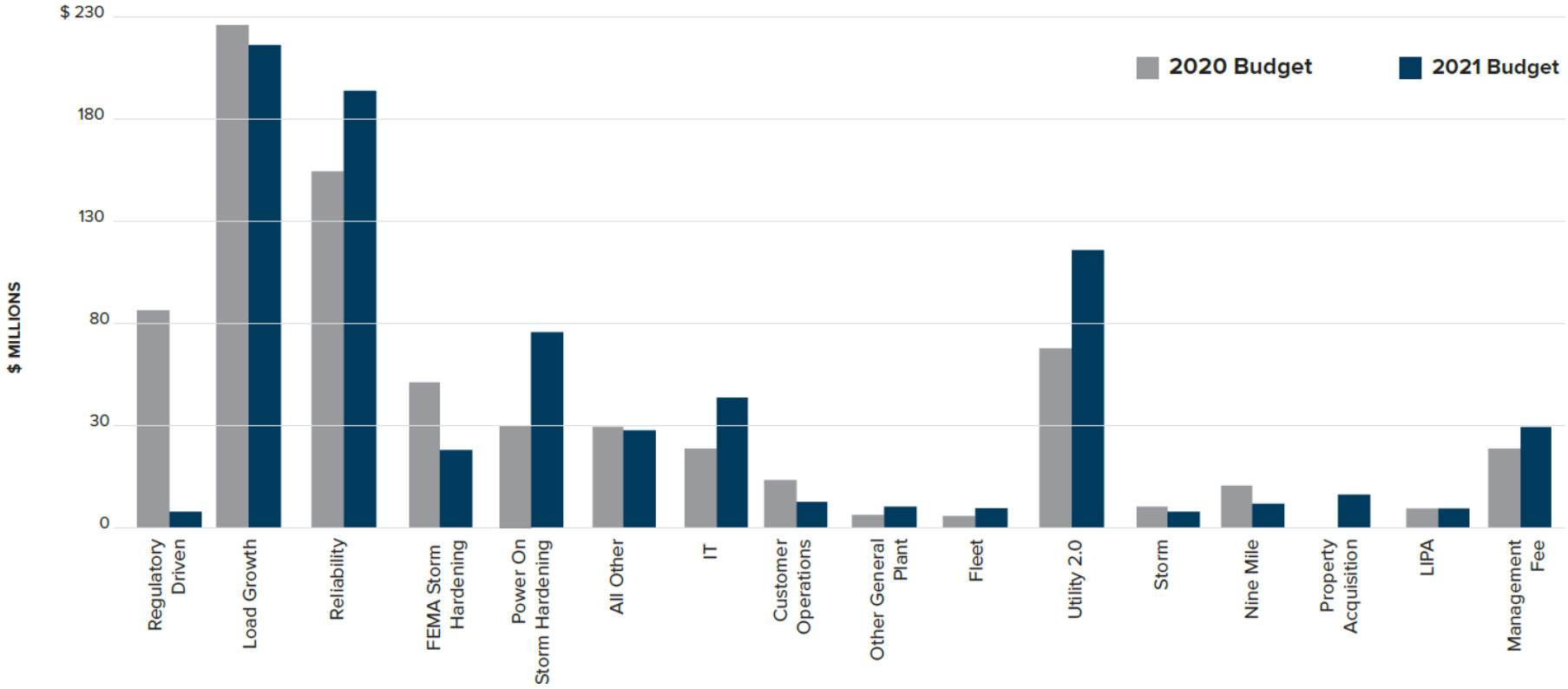
CHANGES IN 2021 OPERATING REVENUES

The 2021 Operating Budget includes Operating Revenues from customers of $3.7 billion

- $4.8 million decrease from 2020

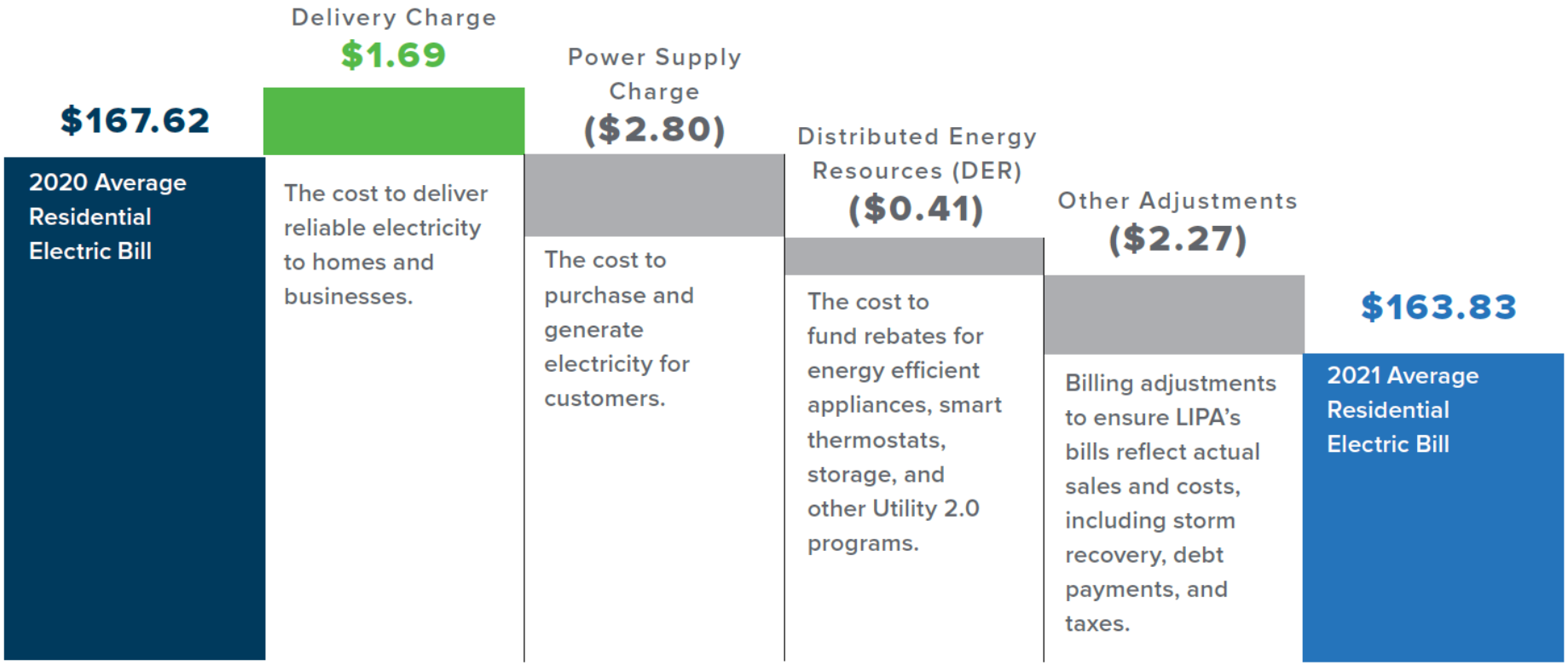


$766 MILLION 2021 CAPITAL BUDGET

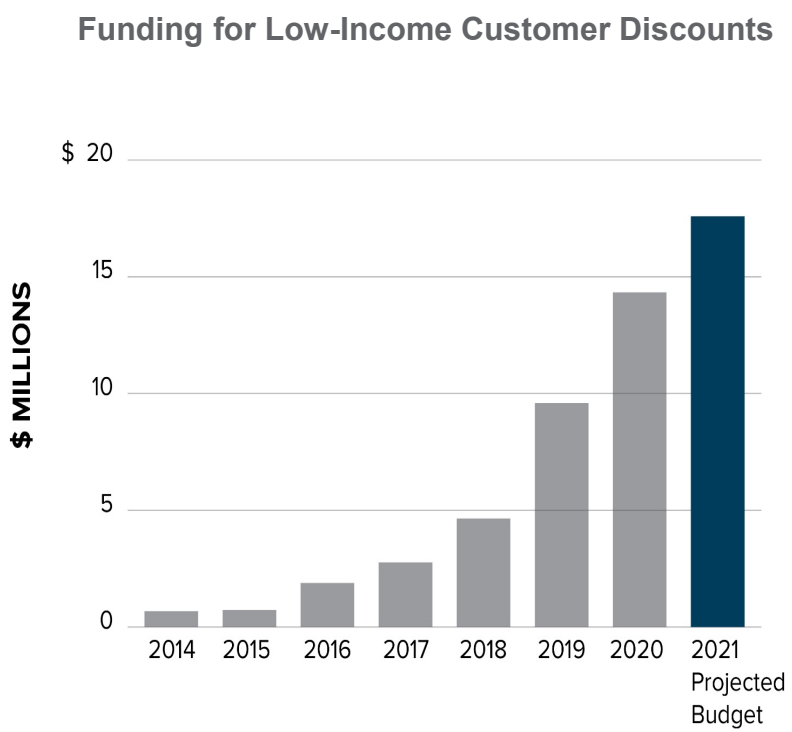


- Compared to 2020, the Capital Budget is decreasing by $36 million
- The most significant change is a $95 million decrease for regulatory driven projects due to the completion of the Western Nassau Transmission Project

ELECTRIC BILLS TO DECREASE



HELPING LOW- AND MODERATE-INCOME CUSTOMERS



Increasing Funding for LMI Customers

- LIPA has increased annual funding for bill discounts from $0.6 million in 2014 to **$17.6 million in 2021**
- In addition to offering bigger discounts, LIPA also prioritized expanded outreach to increase customer participation. Customer participation has **nearly tripled** from 14,500 customers in 2014 to over 41,250 today

2021 BUDGET MAINTAINS FISCAL SUSTAINABILITY

- LIPA has achieved four credit rating upgrades since 2013
- Operating Budget targets 1.35x fixed obligation coverage

Financial Policy

LIPA's Credit Rating Upgrades

	2013 Ratings (Outlook)	2019 Ratings (Outlook)
Moody's Investors Service	**Baa1 (Negative)**	**A2 (Stable)**
Standard and Poor's	**A- (Negative)**	**A (Stable)**
Fitch Ratings	**A- (Negative)**	**A (Stable)**

2021 PROPOSED BUDGET
VIRTUAL PUBLIC COMMENT SESSIONS

Virtual Public Comment Sessions

Wednesday, November 18

- 2:00 p.m. - 3:00 p.m.

Thursday, November 19

- 10:00 a.m. - 11:00 a.m.

How the Public Can participate in the Budget Process

Virtual Session Video Conferencing Details: Posted prior to the first session in the *Next Meeting* section of LIPA's website

Sign up to Speak: Email to tariffchanges@lipower.org with **(1)** your name, **(2)** your organization (if any), and **(3)** which public comment session you will be attending (Wednesday or Thursday)

Submit written comments on the Proposed Budget to tariffchanges@lipower.org by December 1, 2020

LIPA
Long Island Power Authority

Powering Long Island's Energy Future

2021 Proposed Budget

customers
1,023,221
residential
116,560
commercial

2020 peak demand
5,269
megawatts

energy requirements
20,104,072
megawatt hours

generating capacity
5,757
megawatts

distribution system
9,000
miles overhead
5,000
miles underground
189,000
transformers

transmission system
1,400
miles

substations
30 transmission **152** distribution

2021 proposed budget

$3,720,764,000 OPERATING

$765,693,000 CAPITAL

TABLE OF CONTENTS

SECTION I

Board of Trustees **3**

Executive Management **4**

Budget Message **6**

Budget by the Numbers **28**

SECTION II

LIPA's 2021 Proposed Budget

MISSION STATEMENT

LIPA is a not-for-profit public utility with a mission to enable clean, reliable, and affordable electric service for our customers on Long Island and the Rockaways.

LIPA
Long Island Power Authority

BOARD OF TRUSTEES

Ralph V. Suozzi
Chairman of the Board

Mark Fischl
Vice Chairman of the Board, Chair, Oversight & Clean Energy Committee

Elkan Abramowitz
Chair, Governance, Planning, & Personnel Committee

Sheldon L. Cohen
Chair, Finance & Audit Committee

Drew Biondo
Trustee

Mathew C. Cordaro, Ph.D.
Trustee

Peter J. Gollon, Ph.D.
Trustee

Laureen Harris
Trustee

Ali Mohammed
Trustee

GOVERNANCE MODEL

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

The Trustees serve for staggered four-year terms. The LIPA Reform Act of 2013 requires that all Trustees reside on Long Island or in the Rockaways and have relevant utility, corporate board, or financial experience. Trustees are not compensated for their service.

STRATEGIC DIRECTION BY THE BOARD

The Board has defined LIPA's mission as enabling clean, reliable, and affordable electric service for our customers. The Board has adopted a series of policies related to LIPA's mission, operations, and governance. For each Board Policy, the Board has specified required performance reports by management that allow the Board to monitor the Authority's performance relative to its policies.

For more information about the Board's Policies, please visit lipower.org/mission.

LIPA
Long Island Power Authority

EXECUTIVE MANAGEMENT

Thomas Falcone
Chief Executive Officer

Anna Chacko
General Counsel

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

Tamela Monroe
Chief Financial Officer

Bobbi O'Connor
Chief Administrative Officer, Secretary to the Board of Trustees

Rick Shansky
Senior Vice President, Operations Oversight

Kenneth Kane
Senior Advisor for Oversight

Justin Bell
Vice President, Public Policy and Regulatory Affairs

Michael Deering
Vice President, External Affairs

James Miskiewicz
Deputy General Counsel

Kathleen Mitterway
Vice President, Audit

Donna Mongiardo
Vice President, Controller

Barbara Ann Dillon
Director of Human Resources and Administration

Jennifer Hayen
Director of Communications

Thomas Locascio
Director of External Affairs

OUR VISION: CLEAN, LEAN, AND CUSTOMER-FIRST

An electric utility for Long Island and the Rockaways that is focused on our customers' needs, providing clean, reliable energy, at the least possible cost.

LIPA
Long Island Power Authority

SECTION 1

BUDGET MESSAGE

BUDGET MESSAGE

Dear Customer-Owners and Stakeholders,

Each year, LIPA's Budget Message covers the major topics affecting service to our customer-owners, including our performance, oversight of our vendors, and plans for delivering value to consumers during the coming year.

As we prepare LIPA's Budget for 2021, the world continues to manage through a health crisis that affects our customers, employees, and the economy. Our thoughts go first to those most affected by COVID-19 and our front-line workers who have been providing essential services throughout the pandemic.

Thomas Falcone
Chief Executive Officer

Despite these challenging times, LIPA remains focused on our Board of Trustees' Vision for a Clean, Lean, and Customer-First electric utility for Long Island and the Rockaways. The Board expects LIPA and PSEG Long Island to deliver exceptional results, including:

- **Outstanding customer satisfaction**, as measured by a third party, among the top 25 percent of electric utilities in the country by 2022;
- A **highly reliable electric grid** that is within the top 25 percent of peer electric utilities – equivalent to fewer than one power outage a year per customer or 99.99 percent reliability;
- Meeting **New York's aggressive climate goals**, including 70 percent renewable energy by 2030 and a carbon-free electric grid by 2040; and
- Providing **electric service at the lowest possible cost**, with rates that are comparable to or below our neighboring utilities in the New York City metropolitan area.

Those familiar with the troubled history of electric service on Long Island know how ambitious these targets remain. Most significantly, **PSEG Long Island missed the mark in its response to Tropical Storm Isaias in August 2020**. However, we are learning lessons from that storm and continue to advance on each of the Board's expectations, as I will describe below.

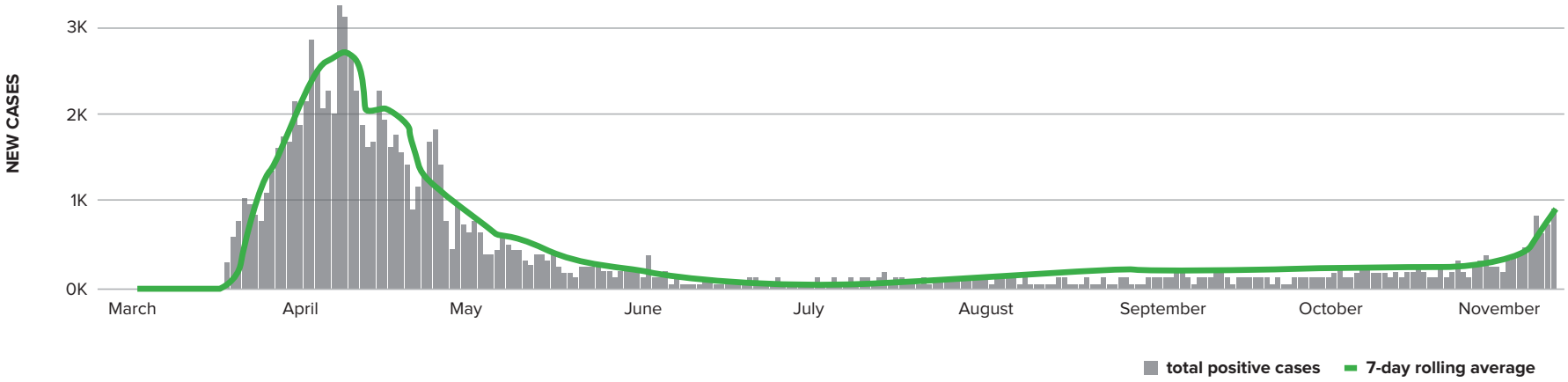
LIPA
Long Island Power Authority

IMPACT OF THE COVID-19 PANDEMIC ON LONG ISLAND AND THE ROCKAWAYS

The New York metropolitan area was hit hard by COVID-19 at the beginning of the pandemic and continues to feel its effects, with more than 106,000[1] confirmed cases on Long Island to date. Under the leadership of Governor Andrew M. Cuomo and his *New York State on Pause* executive order, all non-essential businesses were closed on March 22, 2020, and new infections peaked in early April, as shown in Figure 1. This Pause reduced the new infection rate by 97 percent between March 22 and May 26, and despite a recent uptick, infection rates remain well below pre-Pause levels.

The pandemic and business closures have had a significant economic impact throughout our region, including on electric sales. The unemployment rate on Long Island increased from 3.8 percent in February to over 16 percent in April.[2] Commercial electric sales were off by as much as 18 percent on a weather-normalized basis in April and May, compared to the prior year. Offsetting those declines, residential electric sales increased by as much as eight percent during the peak period when businesses were closed and customers remained at home.

FIGURE 1
COVID-19 Infection Rate on Long Island



[1] Suffolk and Nassau County Departments of Health and New York State
[2] New York State Department of Labor

With nonessential businesses re-opening in phases between May 27 and July 8, unemployment and electric sales have started to revert to trend (see Figures 2 and 3), although this will likely take several years.

FIGURE 2

Unemployment Rate on Long Island during 2020

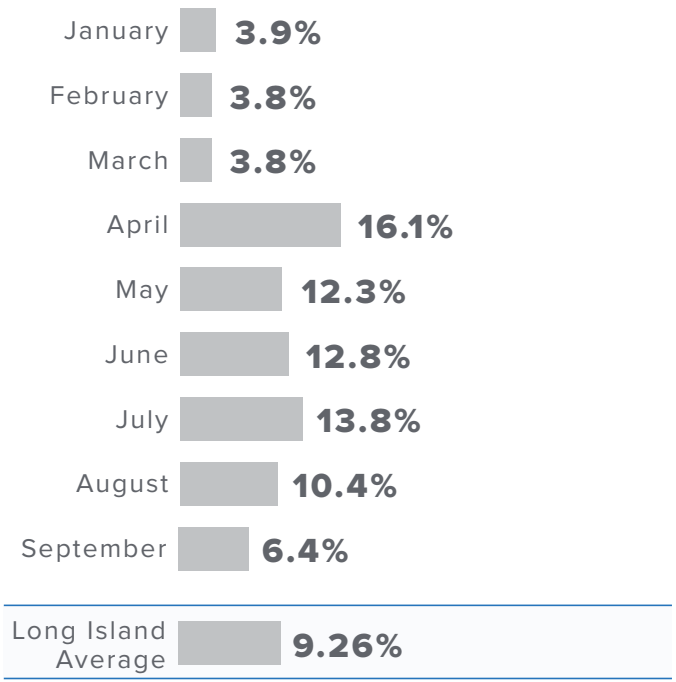
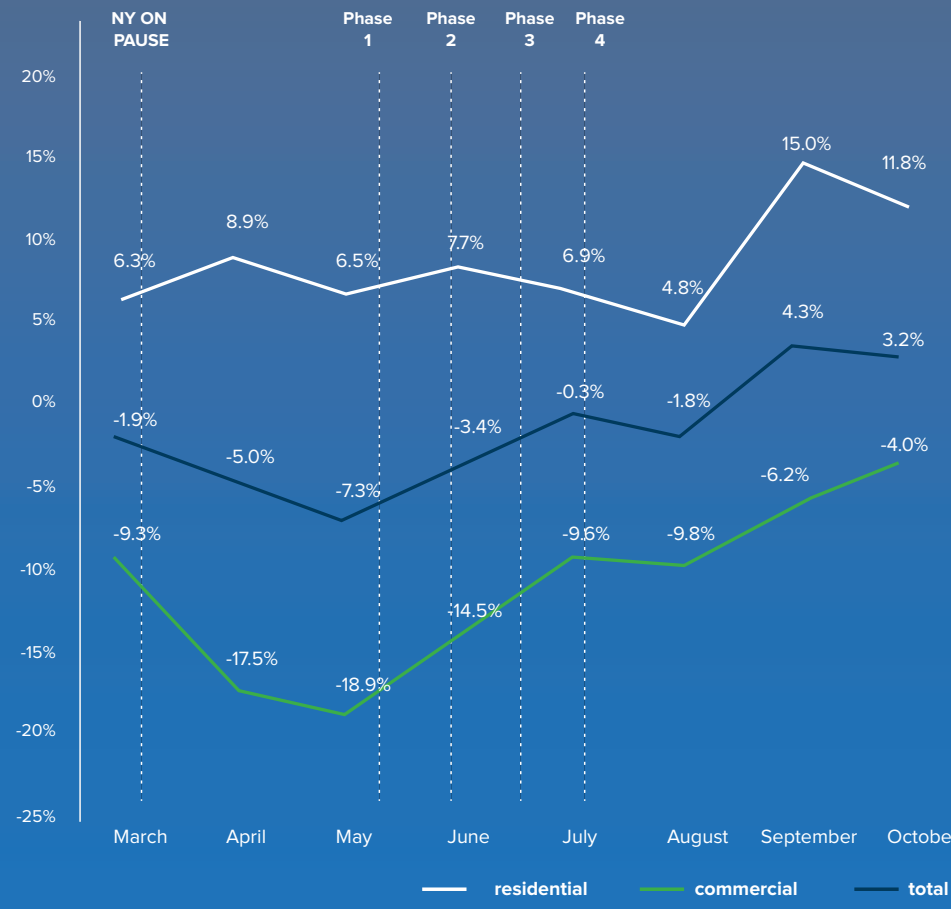


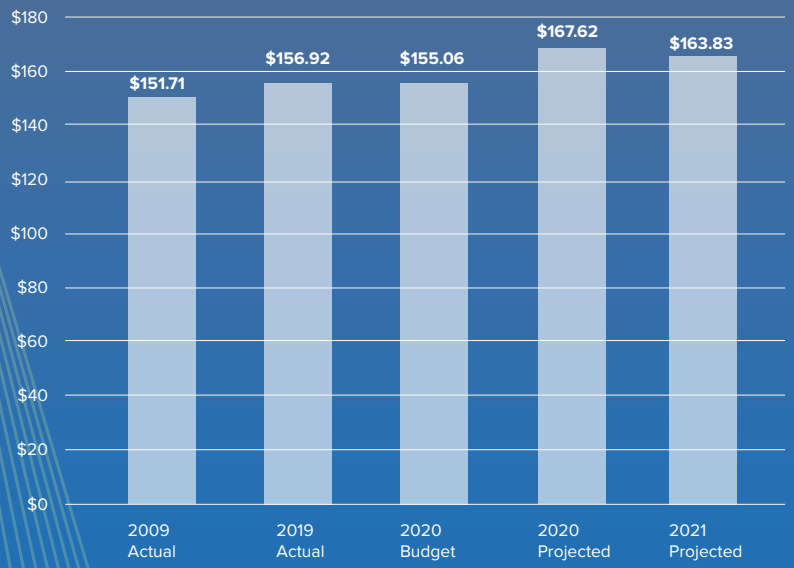
FIGURE 3

Weather Adjusted Electric Sales: March-October 2020



LIPA Long Island Power Authority

FIGURE 4
Average Electric Bills Remained Roughly Flat from 2009-2019



[3] 2020 Projected includes actual residential bills through the 3rd quarter of 2020 and projected through the 4th quarter of 2020.

The pandemic will continue to challenge LIPA and our customers in 2021, particularly in delivering on the Board's aggressive goals to provide a cleaner, more reliable, customer-focused utility to our customer-owners, while controlling the impact of costs on residential customer bills. Thus far, **we have successfully accomplished the Board's goals while holding the average residential customer bill to a roughly three percent increase between 2009 and 2019** — far below the rate of inflation — as shown in Figure 4.

However, with increased customer usage during the pandemic and a hotter than normal summer, residential electric bills have been higher in 2020, reaching an average of $168 per month, compared to LIPA's 2020 Budget of $155. **We project that electric bills will decrease in 2021 to $164 per month**, assuming continued elevated pandemic usage and typical weather.

In May, to help customers manage their rising costs, LIPA and PSEG Long Island announced several belt-tightening actions for 2021, 2022, and 2023, including:

- Deferring $60 million of existing projects from the Capital Budget from 2021 and 2022 and deferring $150 million of new Capital initiatives;
- Cutting $15 million from the Operating Budget and deferring $80 million of new operating initiatives;
- Refinancing outstanding bonds for an estimated $70 million of present value interest savings; and
- Retiring 68 megawatts (MW) of peaking plants and 400 to 600 MW of steam generation between 2020 and 2022.

LIPA Long Island Power Authority

With these and other measures (see Figure 13), **the LIPA Budget will remain flat from $3.74 billion in 2020 to $3.72 billion in 2021**.

In addition to the numbers, there is the human element. I am incredibly proud of LIPA and PSEG Long Island's 2,500 employees. Our essential staff has continued to report in person, every day, even during the times of greatest uncertainty, demonstrating their commitment to both our customers and community, while we all have also adjusted to new ways of working together.

LIPA BOARD HELPS CUSTOMERS DURING THE PANDEMIC

The LIPA Board of Trustees has continued to meet during the pandemic. To ensure that customers impacted by the coronavirus pandemic have access to essential electricity service, the Board has:

- Suspended customer terminations and late payment charges;
- Extended the grace period for low- and moderate-income customers to renew bill discounts;
- Suspended reconnection fees for commercial customers who choose to disconnect their electric service during pauses in business activity; and
- Eased repayment terms for customers entering into deferred payment agreements.

By these actions, the Trustees have waived an estimated $9.4 million in payment-related charges. In addition, the Trustees increased bill discounts and set targets to enroll more customers in our discount programs—growing funding for customer bill assistance to a record $14.4 million in 2020—quadrupling the average funding level of the prior five years. **The 2021 Budget now proposes to further increase customer bill assistance to $17.6 million.**

FIGURE 5
Long Island's Largest Storms

Storm	Outages	Damage Locations
Superstorm Sandy 2012	**1.19M**	**37,000**
Hurricane Gloria 1985	**750K**	**18,730**
Tropical Storm Isaias 2020	**645K**	**22,986**
Tropical Storm Irene 2011	**523K**	**18,926**

Tropical Storm Isaias making landfall on Northeast
Source: National Oceanic and Atmospheric Administration

LEARNING FROM PSEG LONG ISLAND'S RESPONSE TO TROPICAL STORM ISAIAS

On August 4, Tropical Storm Isaias made landfall on Long Island. The storm moved swiftly with wind gusts of up to 70 miles per hour. **The resulting damage to the electrical system caused approximately 645,000 customer outages, making it the third-most damaging storm to affect Long Island's electric grid,** as shown in Figure 5. It took PSEG Long Island five days to restore 75 percent of customers and eight days to restore 99 percent of customers.

Significantly, on the afternoon of the storm, both PSEG Long Island's Outage Management System (OMS) and telephone system failed. The OMS and its feeder systems are complex, mission-critical information technology used to report power outages, assess damage, estimate customer restoration times, dispatch trucks, and communicate with customers, as shown in Figure 6.

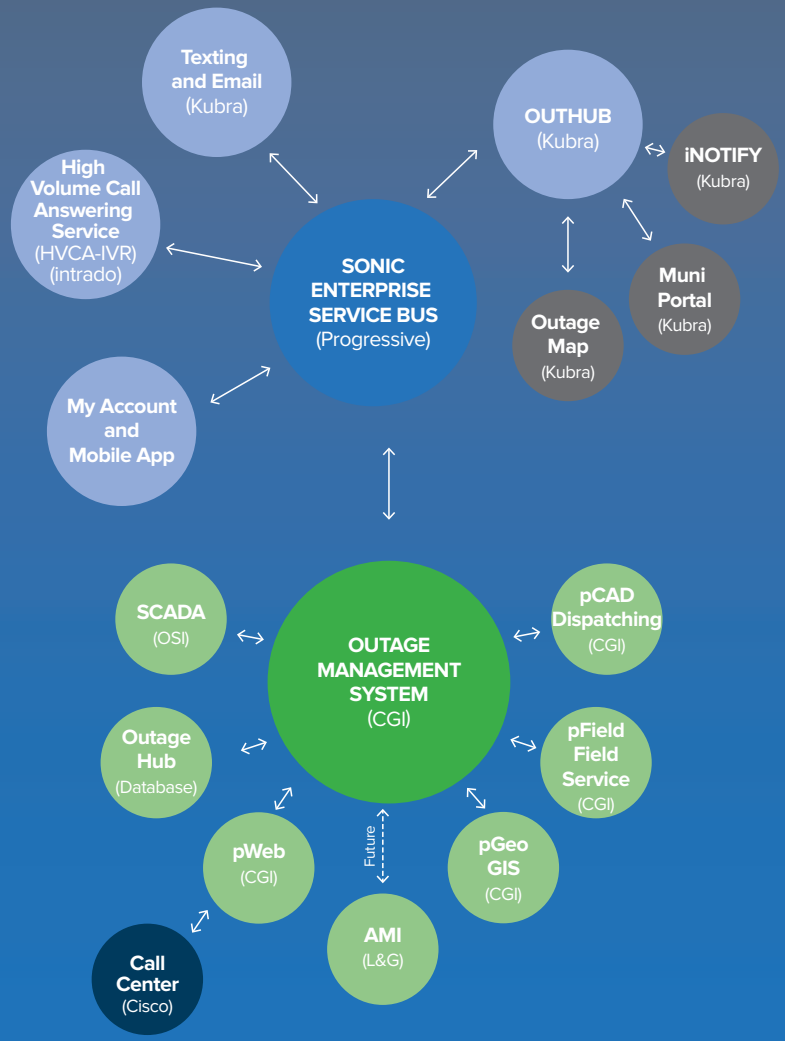
LIPA Long Island Power Authority

The failure of the OMS meant that customers could not communicate with PSEG Long Island via the customer website, mobile phone application, or text message. The malfunction also caused estimated restoration times to be sent to customers that were optimistic and inaccurate.

Large numbers of customers called PSEG Long Island's call center to report outages and obtain information. More than one million of those calls went unanswered, as the call center infrastructure was also overwhelmed. In short, **all of PSEG Long Island's critical technology systems and customer communication channels failed**.

On August 5, **the day after the storm landed, LIPA aggressively pursued its oversight function, formed an Isaias Task Force, and initiated an independent review of the root causes of PSEG Long Island's lapses during the storm**. The Task Force promised the LIPA Board of Trustees and the public 30- and 90-Day Reports and a final report with findings and recommendations within 180 days.

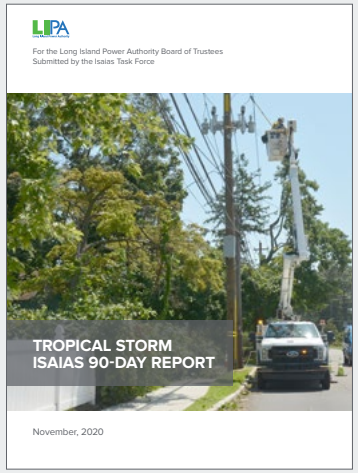
FIGURE 6
Architecture of PSEG Long Island's Outage Management System



The Task Force issued the first of its reports on September 23 and the second on November 18. Rather than repeat all of the Task Force's findings, which are publicly available, I will discuss its most important conclusion—the root cause of PSEG Long Island's problems during the storm was mismanagement. **No one can mitigate every risk, but PSEG Long Island could have prevented the information technology and communication issues experienced during this storm**.

LIPA has paid PSEG Long Island $467 million over the last seven years to provide management services, including to implement the OMS and telephone systems that failed. The Task Force has made specific recommendations to address these failures. **For nearly half-a-billion dollars, Long Island customers deserve best-in-class service and top-notch management.**

LIPA is now seeking the organizational and contractual changes recommended by the Task Force, as well as appropriate compensation for our customers. If we cannot reach agreement on acceptable reforms, or if there is a lack of progress to implement the Task Force's recommendations, LIPA will exercise its rights to terminate the PSEG Long Island contract.



30-Day and 90-Day Tropical Storm Isaias Reports are available at lipower.org

CLEAN, LEAN, CUSTOMER-FIRST

Despite the challenges of 2020, LIPA continues to advance the Board's Vision for a Clean, Lean, and Customer-First utility for Long Island and the Rockaways. Let me elaborate on what each of these mean, provide examples of what we have accomplished so far, and discuss what we have planned for 2021.

I. Our Strategy for a Changing Electric Grid: CLEAN

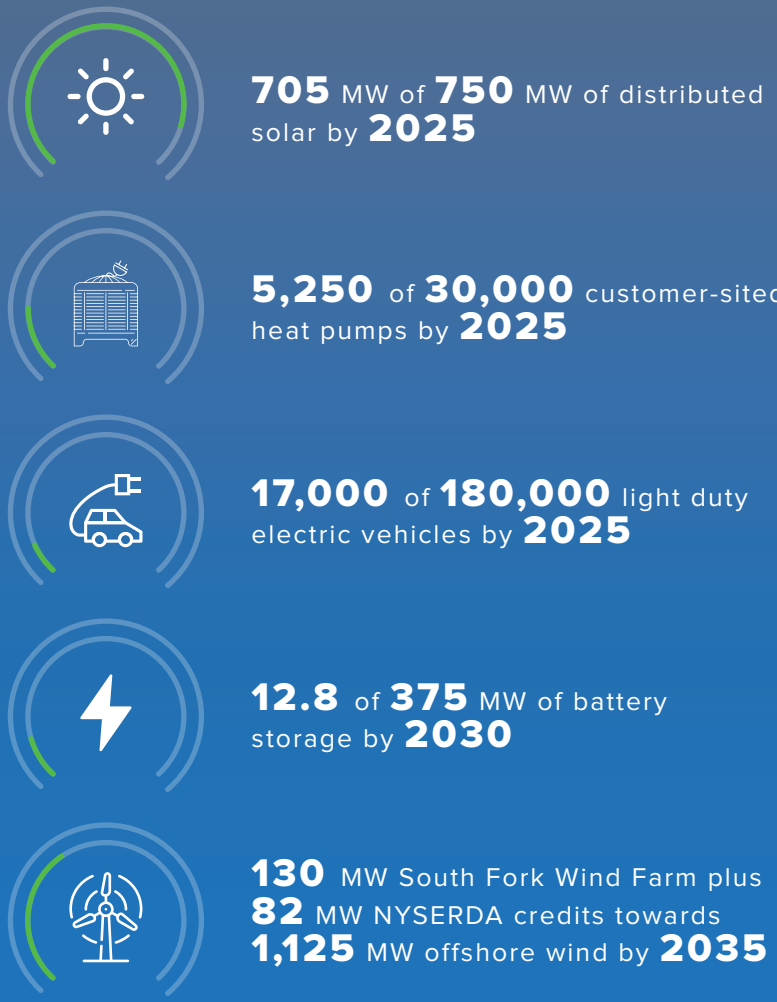
First, let's go over what it means for us to run our business **Clean**.

Clean means meeting New York State's aggressive climate goals and providing Long Island with 100 percent carbon-free energy by 2040. And, it means enabling other sectors of the economy, like transportation and buildings, to decarbonize through the use of electricity. To meet our share of New York's goals, LIPA will need:

- 750 MW of distributed solar by 2025;
- 30,000 customer-sited heat pumps by 2025;
- 180,000 light duty electric vehicles (EVs) by 2025;
- 375 MW of battery storage by 2030; and
- 1,125 MW of offshore wind by 2035.

Figure 7 shows LIPA's progress so far. While we are on track, we also still have a lot to accomplish.

FIGURE 7
Long Island's Clean Energy Scorecard



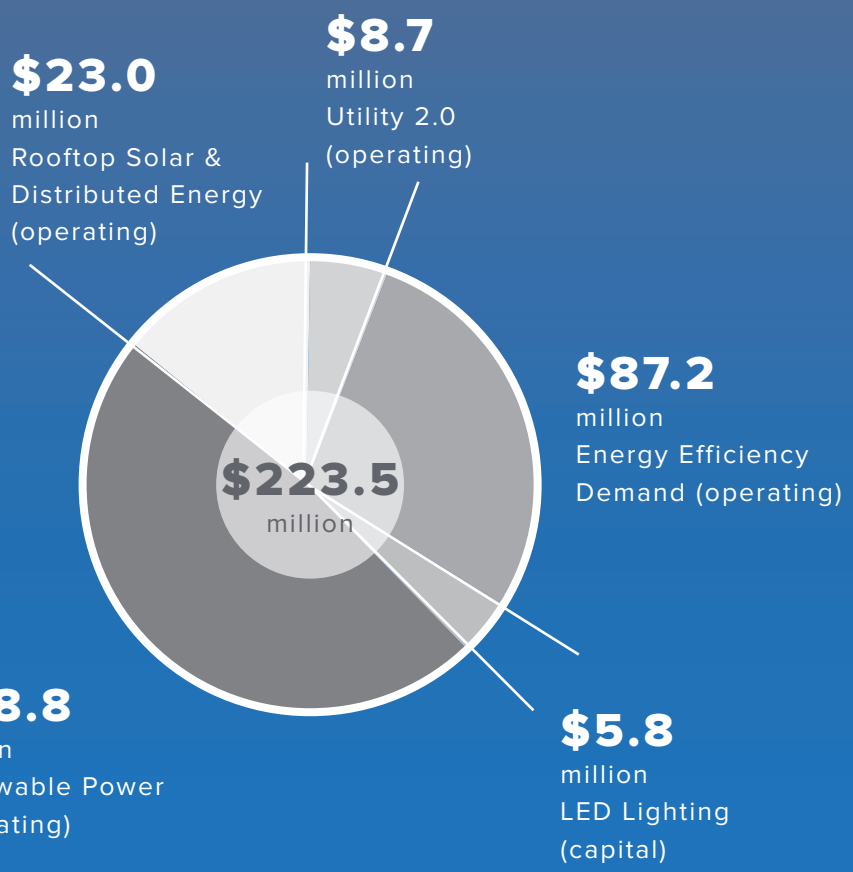
In 2020, LIPA advanced its clean energy goals by:

- Supporting the permitting of the transmission cable for New York's first offshore wind project, the 130 MW South Fork Wind Farm;
- Studying the transmission reinforcements required to support; **9,000 MW of offshore wind** on Long Island and in New York City;
- Signing a power purchase agreement for a 23 MW utility-scale solar project in Calverton;
- Soliciting 25 MW direct current (DC) of community solar projects to expand access to renewable power for low-income residents and help address climate equity;
- Retiring 68 MW of peaking units at Glenwood Landing and West Babylon in 2020 and 2021;
- **Studying the retirement of an additional 400-600 MW of steam and peaking units by 2022**, with a decision on retirements by the end of 2020;
- Enrolling 1,000 EV owners in Smart Charge off-peak charging awards;
- Rebating 900 residential smart chargers and issuing demand incentives to 115 DC fast charging ports; and
- Issuing rebates and incentives for 5,250 air source heat pumps.

In 2021, we will be:

- Updating LIPA's **Integrated Resource Plan** to determine the least cost mix of generation and transmission to ensure continued system reliability while planning for an orderly transition away from fossil fuels;
- Issuing a request for proposals for **175-200 MW of utility-scale energy storage** to help address offshore wind intermittency and ensure that LIPA meets its share of New York's storage goals;
- Working with the New York State Energy Research and Development Authority (NYSERDA), who will act as LIPA's procurement agent for **100-200 MW of Renewable Energy Credits**, to supplement LIPA's own clean energy procurements;
- Investing in **electric vehicle make-ready infrastructure** to support 24 DC fast chargers and 254 level two chargers;
- Offering 1,000+ rebates for residential EV smart chargers and enrolling up to 245 new DC fast charging ports in demand incentives;
- Enrolling another 1,000+ EV owners in Smart Charge off-peak charging rewards;
- Supporting over 5,000 new heat pumps through rebates and incentives; and
- Adding new capability for customers to finance heat pumps on their utility bill.

FIGURE 8
2021 Budget for Clean Energy Programs and Distributed Energy Resources



The 2021 Budget continues LIPA's investment in clean and distributed energy programs with record funding, as shown in Figure 8. Our Clean Energy Budget includes:

- **$99 million for utility-scale renewable purchases**, including energy from solar farms in Calverton, Kings Park, Riverhead, Shoreham, and Upton. These solar farms are among the largest located in New York state;
- **$87 million for energy efficiency and distributed energy programs**, providing 1.1 trillion British Thermal Units of energy savings in 2021 (the equivalent of 14,000 Long Island homes);
- **$23 million for residential and commercial solar and distributed energy systems**, with over 705 megawatts installed or 40 percent of all distributed systems in New York state. **Long Island is on track to exceed its 750 megawatt distributed solar goal for 2025** ahead of schedule;
- **$9 million for Utility 2.0 programs**, including new EV make-ready charging infrastructure, residential EV charging rebates, EV fast charging stations, a heat pump pilot program, a distributed energy resources visibility platform, conservation voltage reduction, a commercial and industrial demand alert pilot, and an enhanced online customer marketplace for energy efficient products and services; and
- **$6 million for new LED lighting**, as part of an $18 million Dusk-to-Dawn program to replace conventional light fixtures for our commercial customers.

LIPA
Long Island Power Authority

NOW OPEN: THE JONES BEACH ENERGY AND NATURE CENTER

In September 2020, **LIPA, together with New York State Parks, Recreation, and Historic Preservation, opened a new Energy and Nature Center at Jones Beach State Park.**

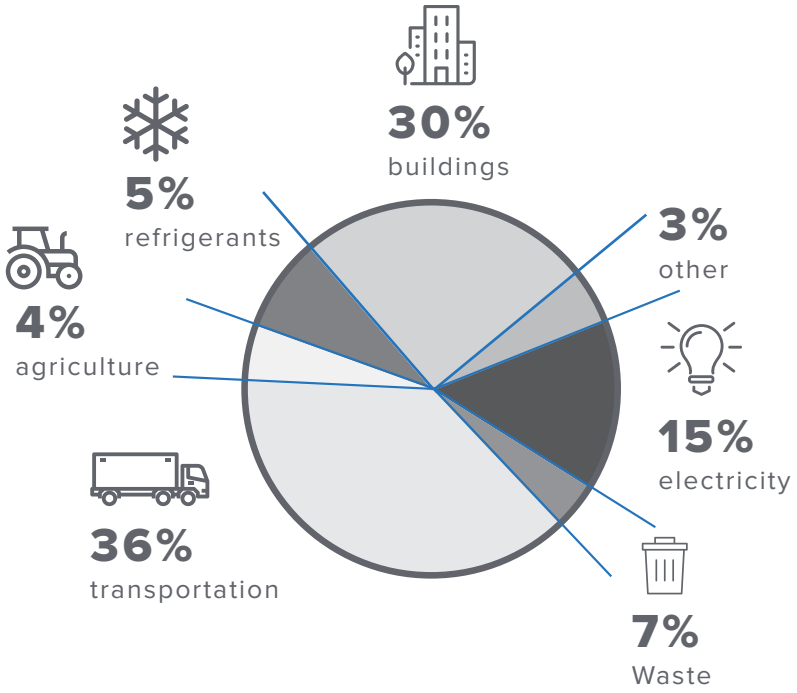
The center is an innovative public-private partnership that aims to further the understanding between human action, energy use, and environmental conservation and will be used for educational and training activities. The net-zero energy building sets an example of sustainable and resilient design. Through a variety of hands-on and accessible indoor and outdoor exhibits, educational programming, and public events, the center showcases ways visitors can become conscientious stewards of our environments and smart energy consumers – creating a more resilient and sustainable future.

The Jones Beach Energy and Nature Center is open year-round and welcomes visitors of all ages. **Visit jonesbeachenc.org to plan your visit**.

THE ELECTRIFICATION ERA: HOME AND AUTO

The majority of New York's carbon emissions come from transportation and the heating of buildings, as shown in Figure 9. **By encouraging cost-effective electrification of vehicles and heating, we can reduce Long Island's carbon footprint, while getting more value out of the fixed cost of maintaining the electric grid**.

FIGURE 9
New York's Carbon Emissions Sources[4]



[4] New York State Department of Environmental Conservation

With LIPA's incentives for beneficial electrification, **building a new all-electric home using a heat pump system for heating and cooling costs less than building a single-family home connected to the natural gas system**. Consumers not only reduce carbon emissions but save money, as shown in Figure 10.

LIPA's air-source heat pump programs are part of a goal to reach 30,000 heat pump installations on Long Island by 2025.

FIGURE 10
For a Newly Constructed Single Family Home on Long Island, Electrification Saves Customers Money and Reduces Carbon Emissions

	Natural Gas	All-Electric Home
Heating and cooling	Gas furnace and central air conditioning	Cold climate heat pump
Water heater	Gas water heater	Heat pump water heater
Clothes Dryer	Gas	Heat pump
Equipment, connection, and installation costs	$22,973	$22,418
LIPA Rebates		$5,950
Net cost with rebates	$22,973	$16,468
Upfront savings		**$6,505**
Annual bill savings		**$765**
Home carbon footprint (2021)		**-21%**
Home carbon footprint (2040)		**-100%**

LIPA'S ELECTRIFICATION PROGRAM HIGHLIGHTS

ELECTRIC VEHICLES

- 25 Percent **EV Overnight "Smart Charging"** Discount (continued from 2020) plus new time-of-day rate options (new in 2021)
- Complimentary infrastructure upgrades for over **275 public and workplace chargers** (new in 2021)
- $500 **EV Residential Charger Rebates**
- Demand incentives for 245 **DC Fast Charging Stations**
- Up to $2,000 New York State **Drive Clean Rebate**

MODERN ELECTRIC HEATING

- 15 Percent **Electric Discount** for Winter Heating
- **Heat Pump Rebates**
  - > $2,500 to $2,800 for Oil and Gas Heat Conversions (+ 50% for low-income households)
  - > $3,600 for New Construction (+ 50% for low-income households)
  - > $750 for Hot Water
  - > $750 for Pool Heaters
- $8,000 Rebate for **Geothermal Systems**

ELECTRIC VEHICLES

In 2021, LIPA and PSEG Long Island are adding to the existing suite of EV incentives and rebates. The newly added programs will include complimentary "make-ready" infrastructure upgrades for over 275 public and workplace chargers and new time-of-day rate options. Four of the new time-of-day options will be available to residential customers, one will be available to small commercial customers, and all five of the new options will feature **low overnight rates that are ideal for EV charging**.

LIPA
Long Island Power Authority

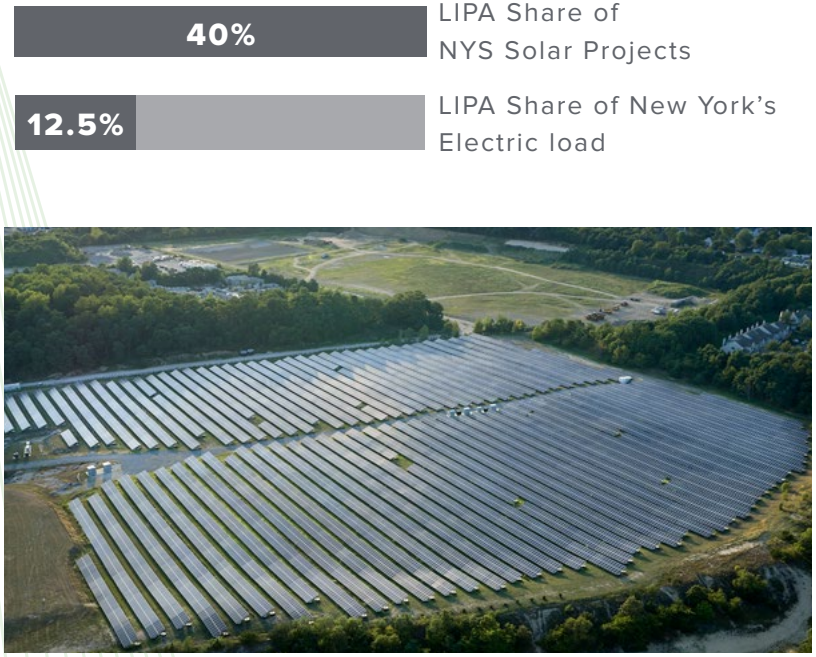
LONG ISLAND LEADS THE STATE IN ROOFTOP SOLAR

Long Island is on track to exceed its 750 MW distributed solar goal by 2025, with the most robust rooftop solar market in the state.

FIGURE 11

Long Island Leads New York in Distributed Solar Energy

While Long Island accounts for only 12.5 percent of all electric energy produced in New York State, we are the state's top producer of clean, distributed solar energy.



In 2019, LIPA and NextEra Energy Resources LLC opened the Kings Park Solar Project located on Old Northport Road. This four-megawatt facility powers over 1,000 homes.

FIGURE 12

Long Island Distributed Solar Installed Capacity

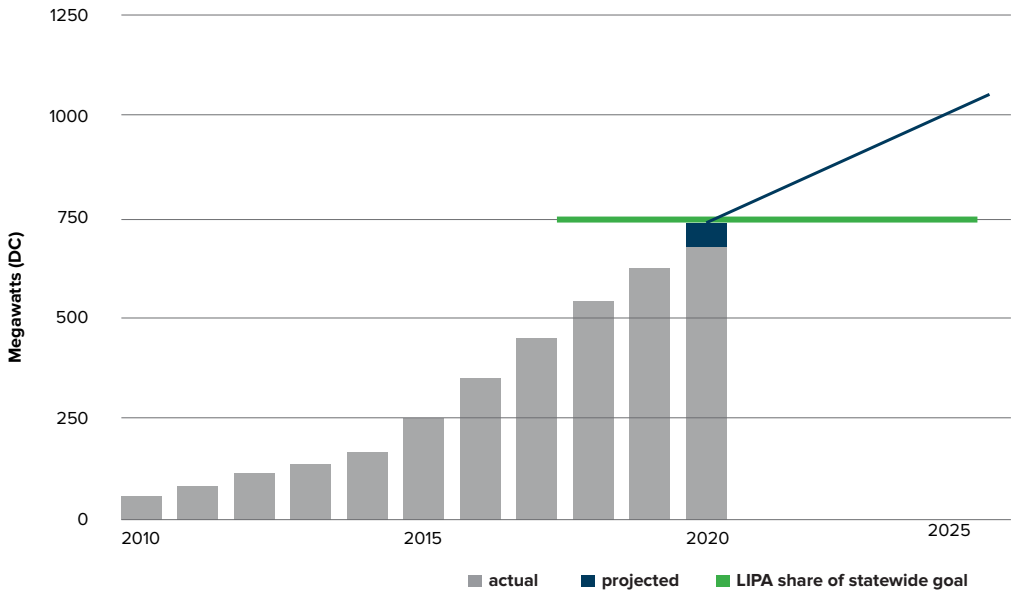


FIGURE 13
$718 Million Customer Savings in 2021 from Operating Lean

	Millions
Discontinuing investment in combined cycle plants	$353
LIPA Reform Act 2% Tax Cap	$213
Refinancing existing debt	$30
Renegotiating expiring power purchase agreements	$48
Investing in cost-effective energy efficiency	$19
Power plant property tax savings	$13
Reduction to gas transportation costs	$12
Smart Meter savings	$11
Operating savings and improved productivity	$10
Power plant pension and retirement savings	$8
Power plant retirements	$1
Total	**$718**

II. ACHIEVING A BALANCE BETWEEN COST AND SERVICE: LEAN

Next up, Lean: What does it mean to operate **Lean**?

Operating Lean means achieving a balance between cost and service to get the most out of every dollar. It means reducing cost in areas that provide less value to customers while investing in customer-facing initiatives.

As described on page 9, to help customers manage their costs, LIPA and PSEG Long Island announced several belt-tightening actions for 2021, 2022, and 2023. These measures build on the many actions LIPA has taken since the LIPA Reform Act of 2013 to maintain affordability for our customers.

Figure 13 shows the savings from operating lean for the 2021 Budget. **The $718 million in cost savings in 2021 equals 20 percent of electric bills or about $32 per month for a typical residential customer**.

Without operating lean, LIPA and PSEG Long Island would have to make a choice between sacrificing our commitment to affordability for customers or being unable to fund important investments in clean energy, customer satisfaction, and reliability of the electric grid.

LIPA
Long Island Power Authority

LEAN ALSO MEANS ADVOCATING FOR LEANER PROPERTY TAXES ON OLDER LONG ISLAND POWER PLANTS

New York's Climate Leadership and Community Protection Act sets aggressive targets to rapidly add new, cleaner sources of energy to New York's electric grid.

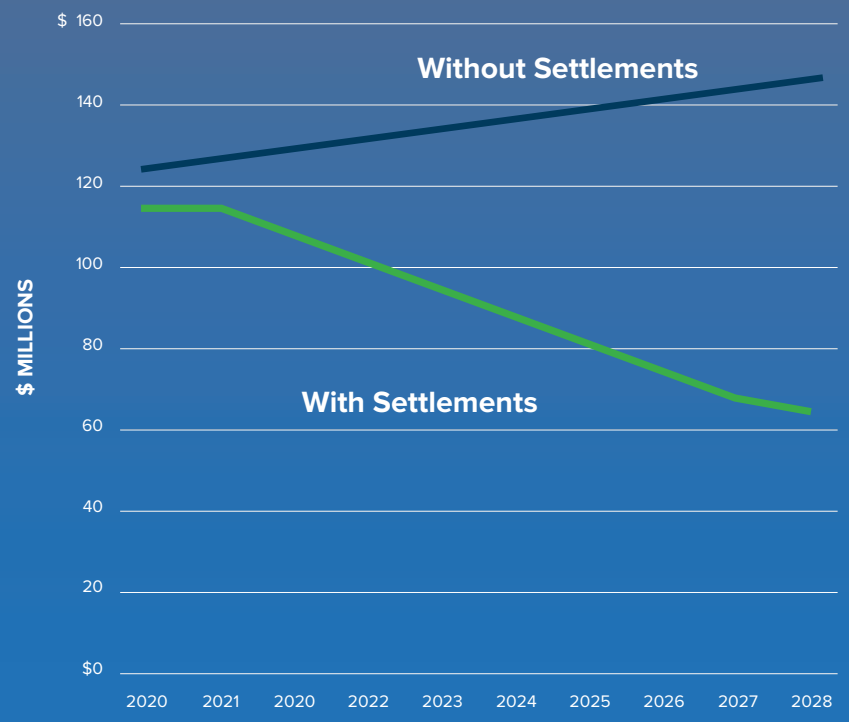
Recognizing this reality, **LIPA is working to transition our most (over) taxed power plants to a more sustainable energy future**. In 2018, LIPA, the Town of Brookhaven, and the Village of Port Jefferson reached a compromise on the tax bills for the Port Jefferson Power Station.

In September 2020, LIPA also reached an agreement with the Huntington Town Board and Northport-East Northport School District for the Northport Power Station.

After more than a decade of litigation, **these agreements maintain significant tax benefits for the host communities while saving LIPA's customers over $364 million through 2028**.

But we still have one more agreement to go. In November 2019, LIPA reached a tentative settlement with Nassau County for the E.F. Barrett and Glenwood Landing power plants. The settlement is contingent on approval of a payment-in-lieu-of-tax (PILOT) agreement by the Nassau County Legislature. We have offered Nassau County the same fair settlement terms as the other power plants. Meanwhile, as described on page 15, we will be announcing the retirement of 400 to 600 MW of plant capacity by the end of 2020.

FIGURE 14
Power Plant Tax Settlements Will Save $364 Million Through 2028[1]



[1] Savings from the Port Jefferson Power Station and Northport Power Station settlements

LIPA Long Island Power Authority

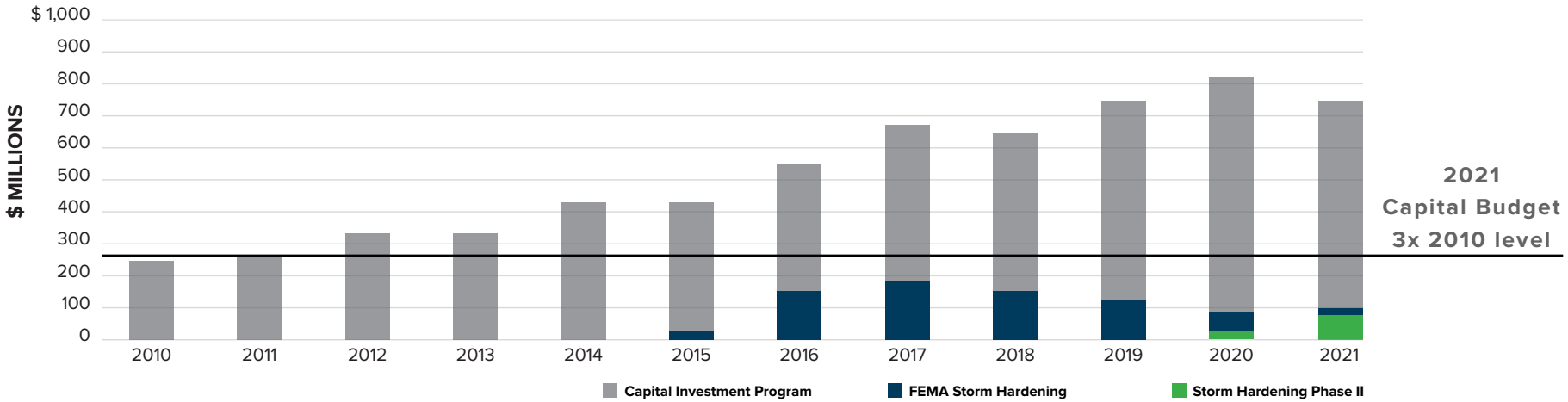
III. PUTTING CUSTOMERS FIRST

What does it mean to put Customers First? **For LIPA, Customer-First means exceeding our customers' expectations reliably and responsively.**

The LIPA Board has committed to making the investments necessary to achieve high customer satisfaction and electric grid reliability. Starting in 2016, LIPA began a record investment into Long Island's electric infrastructure: over $4.2 billion. In fact, **LIPA's annual investment in infrastructure – the Capital Budget – has more than tripled**, reaching $766 million for 2021, up from $266 million a decade ago, as shown in Figure 15.

FIGURE 15

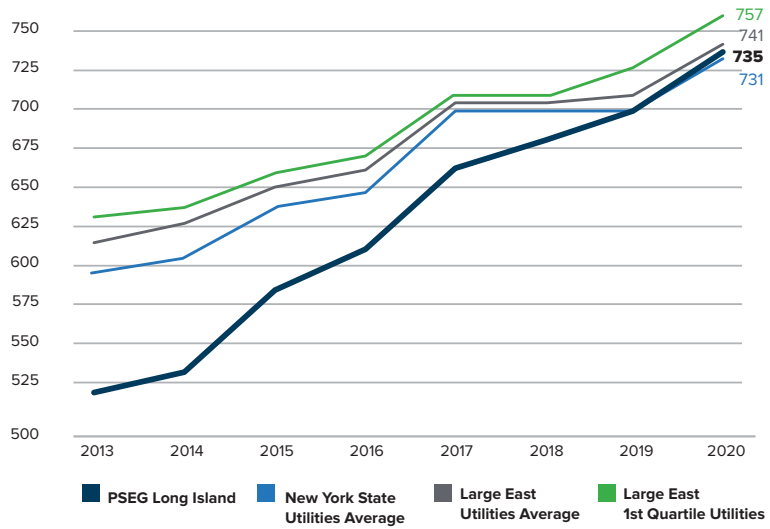
Record Investment in the Long Island Electric Grid



WHAT ARE THE RESULTS OF THIS INVESTMENT?

Prior to making these investments, LIPA was ranked among the lowest electric utilities in the country for customer satisfaction for nearly two decades. **Since 2013, customer satisfaction, as measured by J.D. Power, has increased by more than 216 points or 42 percent**, as shown in Figure 16. The LIPA Board has set a target to be among the top 25 percent of utilities in our region for customer satisfaction by the end of 2022, which means we still have more to do.

FIGURE 16
J.D. Power Residential Customer Satisfaction for New York State and Large East Utilities



Due to these investments, customers with power outages are down 35 percent, while customers with multiple outages are down 72 percent, as shown in Figure 17.

Momentary "flicker" outages have also improved by 47 percent and Long Island electric grid reliability is among the top 25 percent in the nation, with plans to further improve over the next five years.

FIGURE 17
$4.2 billion Investment in Long Island's Electric Grid is Showing Results for Customers

2016 TO 2020 YEAR-TO-DATE

Customers with Power Outages:	↓ 35%
Customers with >4 Outages Per Year:	↓ 72%
Customers with Momentary Interruptions:	↓ 47%
National Utilities Ranking for Reliability:	Top 25%

LIPA Long Island Power Authority

What did we accomplish to put Customers First in 2020?

- Completed the last segments of the FEMA-funded storm hardening program, which has **improved the resiliency of one-third of LIPA's mainline distribution circuits**.
- Improved poor performing local distribution circuits to assure that no customers receive service that is substantially below the average for the system.
- Installed **314,000 Smart Meters**, bringing this technology to more than 745,000 of LIPA's 1.1 million customers.

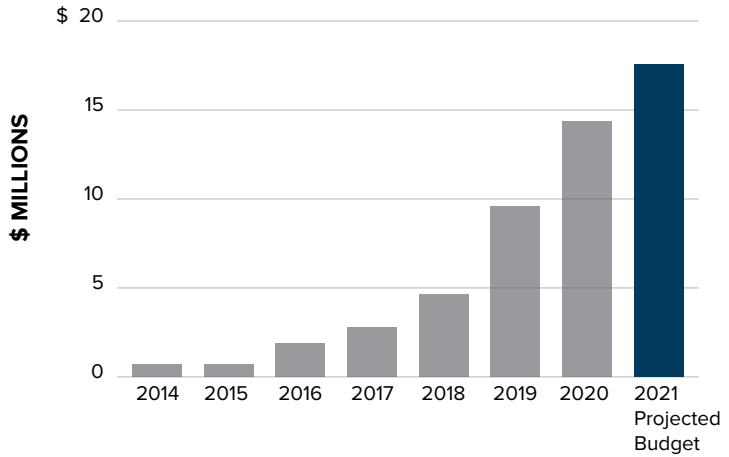
The 2021 Budget continues our investments in customer satisfaction and reliability:

- **$196 million to enhance reliability** across Long Island, including repairing circuits that provide poor reliability, replacing poles and transformers, and trimming trees;
- **$70 million for the Power On Storm Hardening** program for 2021; and
- **$65 million to deploy Smart Meters** to 95 percent of customers by September 2021 and 100 percent by 2022, transforming the customer experience with new electric rate pricing plans, improved power quality, new online tools, better outage tracking, and new opportunities to manage energy use and save money.

ASSISTING OUR LOW- AND MODERATE-INCOME CUSTOMERS

The LIPA Board of Trustees is committed to assisting our income-eligible customers with bill affordability. In recent years, the Board has increased annual funding for bill discounts from $0.6 million in 2014 to $17.6 million in 2021, as shown in Figure 18. In addition to offering bigger discounts, the Board has also prioritized expanded outreach to increase customer participation. **Customer participation has nearly tripled** from 14,500 customers in 2014 to over 41,250 today.

FIGURE 18
Funding for Low-Income Customer Discounts



A SOLAR COMMUNITIES SUCCESS STORY

In 2020, the LIPA Board instituted a new program called Solar Communities to deliver **clean energy to low- and moderate-income households** underserved in the rooftop solar market. Solar Communities is supplied by a competitive feed-in-tariff. Though still in the first phase of a multi-phase bidding process, the results are promising. PSEG Long Island received 47 applications totaling nearly 61 megawatts alternating current (AC), and the weighted average price of applications awarded was much lower than our tariff-based community solar program, saving all customers money. **The resulting solar projects will provide clean energy and bill savings to 3,000-5,000 low- and moderate-income customers**.

PSEG LONG ISLAND HELPS SMALL BUSINESSES DURING PANDEMIC

PSEG Long Island launched a new grant program for up to $5,000 for Chambers of Commerce and Business Improvement Districts to buy tables, chairs, umbrellas, and portable heaters to enable outdoor commerce and dining during the pandemic. To date, PSEG Long Island has made **$100,000 in grants to 20 organizations** and more applications are in progress.

A second new program – Small Business First – helps small businesses upgrade the lighting in their facilities to lower operating costs. PSEG Long Island committed $1.8 million to this program, **reducing operating costs for over 1,000 small Long Island businesses**.

Time Flies Ceramic Studio *in Seaford*

Reyes Deli *in Copiague*

LIPA
Long Island Power Authority

SECTION 2

BUDGET BY THE NUMBERS

BUDGET BY THE NUMBERS

The 2021 Budget consists of an Operating Budget of $3.72 billion and a Capital Budget of $766 million, as shown in Figure 19. The Operating Budget funds delivery and power supply costs, energy efficiency and distributed energy programs, taxes, and debt service. The Capital Budget funds long-life infrastructure investments—such as transmission circuits, substations, poles and wires—as well as information technology, vehicle fleet, and other assets.

FIGURE 19
2021 Proposed Operating and Capital Budget

2021 OPERATING BUDGET ($ thousands)

Operating Revenues	3,662,090
Grant & Other Income	58,674
Total Revenues and Income	**3,720,764**
Power Supply Costs	1,545,928
Delivery Costs	776,030
PILOTs, Taxes & Fees	569,727
Interest Payments	373,004
Debt Reduction & OPEB	456,074
Operating Budget	**3,720,764**
Fixed Obligation Coverage	
LIPA Debt Plus Leases	1.35x
LIPA & UDSA Debt Plus Leases	1.22x

2021 CAPITAL BUDGET ($ thousands)

Capital Projects	671,279
FEMA & PSEG Long Island Storm Hardening	94,414
Capital Budget	**765,693**
Funding from Operating Budget	192,330
FEMA Grant	21,973
Debt Issued to Fund Projects	551,390
Funding Sources	**765,693**
Percent of Capital Projects Funded from Debt	
Including FEMA Projects	72%
Excluding FEMA Projects	74%

Note: The Operating Budget shown is based on revenue requirements. Taxes on power supply have been reclassified to PILOTs, Taxes, and Fees.

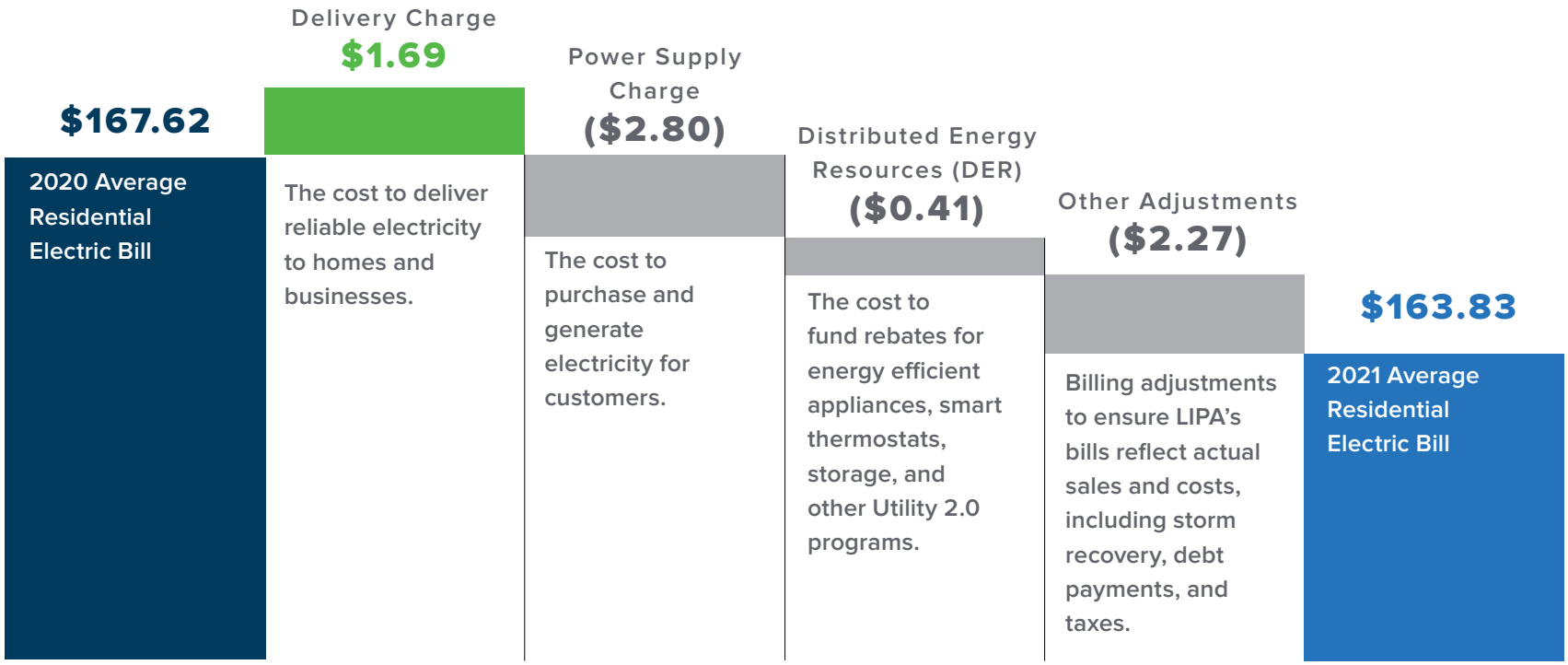
LIPA Long Island Power Authority

ELECTRIC BILLS FOR 2021

Figure 20 shows the 2021 Budget in terms of an average residential customer bill. **Electric bills are forecast to decrease by $3.79 per month in 2021 or 2.3 percent from their 2020 level**. The electric bill is made up of several components, including Delivery Charges, Power Supply Charges, and the Distributed Energy Resources (DER) Charge. For the average residential customer, the Delivery Charge will increase by $1.69 per month, while the Power Supply Charge will decline by $2.80 and the DER Charge will decrease by $0.41. Reconciliations for sales, storms, and other items will decline by $2.27.

FIGURE 20

Average Residential Customer Electric Bill to Slightly Decline from 2020 to 2021



CHANGES IN THE 2021 OPERATING BUDGET

The 2021 Operating Budget includes Operating Revenues from customers of $3.7 billion, a decrease of $4.8 million from 2020. Changes, shown in Figure 21, include:

Debt Payments & Cash Contribution to Capital Projects (Coverage): Debt payments fund borrowings for critical infrastructure projects to keep the electric grid safe and reliable for customers. Maintaining proper coverage levels allows LIPA to fund critical infrastructure projects with prudent amounts of cash flow, instead of relying entirely upon debt. This reduces cost to customers over time. Debt payments and Coverage will increase by $22.9 million from 2020 to 2021.

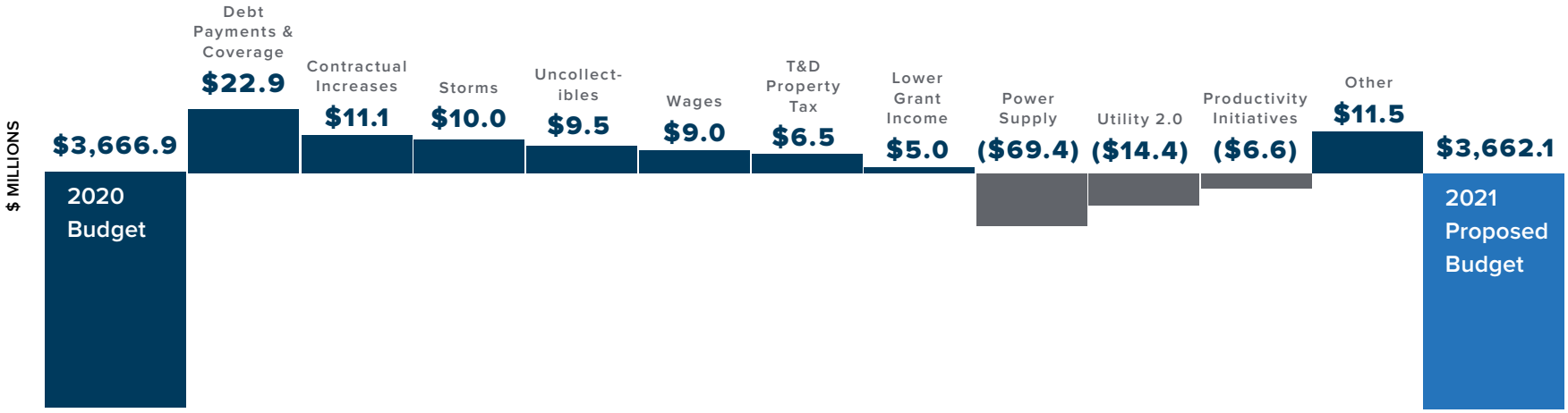
Contractual Cost Increases: PSEG Long Island's budget funds the cost to maintain and operate LIPA's Transmission and Distribution (T&D) system. The budget increases by $11.1 million or 2.0 percent to reflect increases in non-wage costs.

Storms: LIPA's storm budget funds the preparation, response, and repairs necessary to keep lights on after storms. The 2021 storm budget of $70 million reflects an increase of $10 million over the prior year level in order to align with the historic five-year average of storm costs.

Uncollectibles: LIPA is projecting a $9.5 million increase in the Uncollectible expense as a result of the COVID-19 pandemic. The budget assumes a write-off rate equal to that experienced during the 2008 financial crisis.

Wages: PSEG Long Island's contractual wage increases are forecast to cost $9 million more in 2021.

FIGURE 21
2021 Operating Revenues from Customers



CHANGES IN THE 2021 OPERATING BUDGET (continued)

T&D System Property Taxes: LIPA's T&D system is subject to PILOT payments to local municipalities. LIPA customers pay the costs of these property-based taxes. The LIPA Reform Act capped PILOT increases on LIPA's T&D system to two percent per year to reduce the burden on customers of past runaway increases. 2021 T&D system property taxes will increase by $6.5 million or two percent.

Grant Income: 2021 Grant Income has been reduced by $5 million in anticipation of a lower Regional Greenhouse Gas Initiative grant from NYSERDA. This grant supports Long Island energy efficiency programs.

Power Supply Charge: The Power Supply Charge is the cost to purchase or generate electricity for customers. There is a projected reduction of power supply costs of $69.4 million, driven by lower fuel prices and the expiration of certain purchased power agreements.

Utility 2.0: Utility 2.0 funding supports programs designed to promote energy efficiency and beneficial electrification. The 2021 Utility 2.0 budget is based on the July 2020 filing and is $14.4 million lower than the prior year.

Productivity Initiatives: PSEG Long Island is reducing its operating budget by $9.9 million through efficiency and strategic procurement initiatives offset by a reinvestment of $3.3 million in new initiatives, including funding for the Jones Beach Energy and Nature Center, support costs for a new two-way radio network, and resources to prepare for the implementation of New York's Clean Energy Standard.

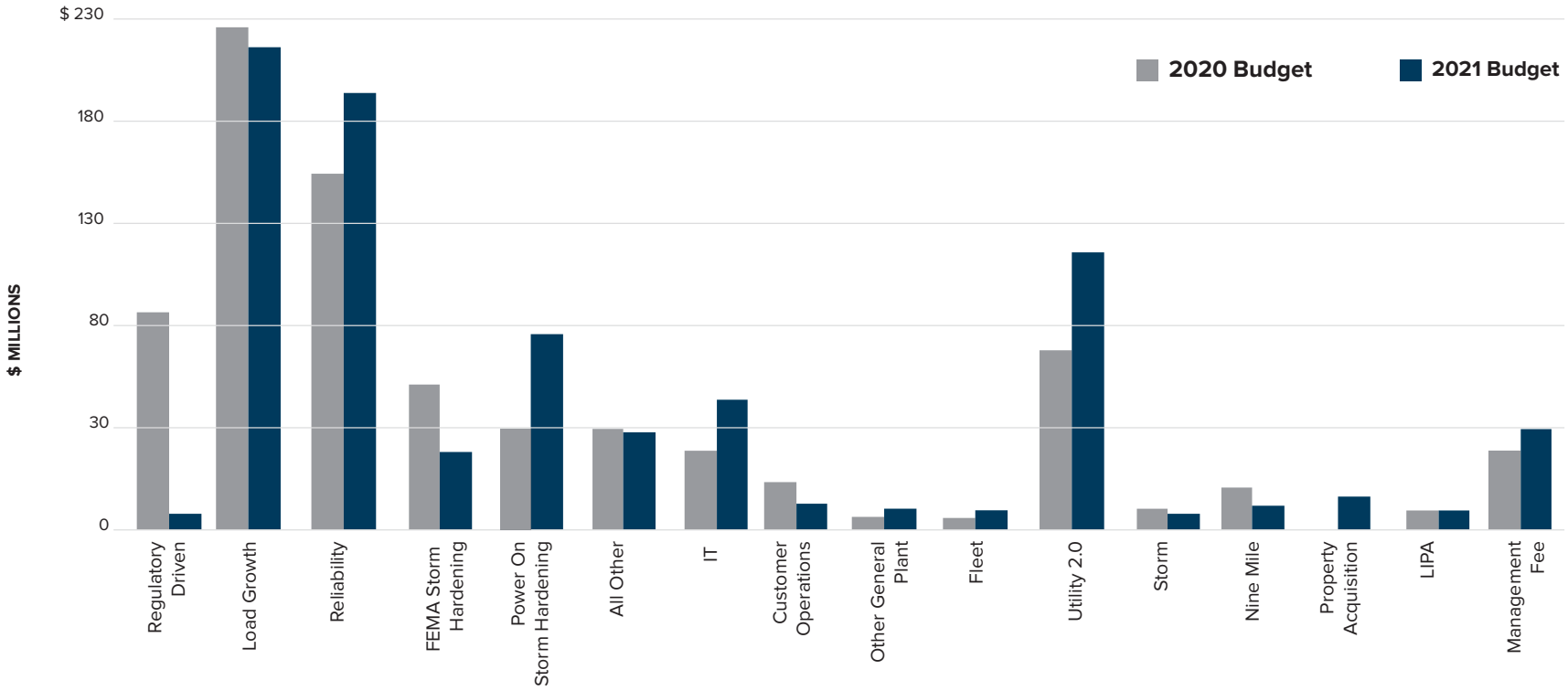
Rooftop Solar on a residential home in Suffolk County, Long Island

CHANGES IN THE 2021 CAPITAL BUDGET

Figure 22 shows the $766 million 2021 Capital Budget as compared to the $802 million 2020 Budget. **The Capital Budget is decreasing by $36 million from the prior year**. The most significant change is a $95 million decrease for regulatory driven projects due to the completion of the Western Nassau Transmission Project. Reliability-related capital spending is projected to increase by $33 million as a result of **increased investment in distribution-related pole and circuit improvement projects,** as well as a new circuit for Fire Island and switchgear replacement in East Garden City. The Federal Emergency Management Agency (FEMA) storm hardening program, which began in 2015, was largely completed in 2020 with the rebuild of 1,025 miles of distribution circuits, the installation of 894 smart switches to minimize outages on the electric grid, and the elevation of six substations to prevent flooding under storm conditions. FEMA storm hardening will decline by $34 million in 2021. **The 2021 Budget also invests $70 million in a second phase of LIPA's storm hardening called Power On.** The work of building a more resilient grid remains a LIPA priority. Utility 2.0 Capital spending will increase by $21 million as a result of the accelerated implementation of Smart Meters.

FIGURE 22

$766 Million 2021 Capital Budget as Compared to the 2020 Budget



THE BOARD'S FINANCIAL POLICIES CONTINUE TO SAVE OUR CUSTOMERS MONEY

Utilities invest in long-life infrastructure each year to maintain the reliability and resiliency of the electric grid. Capital investments are financed through a combination of debt and customer funds. The cost of debt is largely influenced by credit ratings determined by independent rating agencies.

In 2015, the LIPA Board of Trustees adopted a new financial policy called "Debt and Access to the Credit Markets," which uses the public power model shown in Figure 23. **The public power model ensures that a fiscally sound portion of infrastructure projects are funded by customer rates each year**, while the balance is funded by debt and paid for by customers over the life of the infrastructure.

FIGURE 23
LIPA's Financial Policy: Build Equity to Lower Costs

LIPA simply has too much debt – which was the direct result of LIPA purchasing the Long Island Lighting Company entirely with debt in 1998. Today, LIPA's debt-to-asset ratio is 98 percent. **The Board's policy will result in LIPA having a capital structure that is approximately 70 percent debt and 30 percent customer funds by 2028.**

In a year when just about all the news was bad, LIPA's financial policy worked as intended. Early in 2020, when the financial markets were stressed over the potential impacts of the pandemic and borrowing became expensive, LIPA was able to maintain operations without paying exorbitantly high interest rates. LIPA was also able to continue to borrow long-term debt at the lowest interest rates in its history in 2020, due to **LIPA's four credit rating upgrades since 2013**, as shown in Figure 24.

FIGURE 24
LIPA Continues to Receive Credit Rating Upgrades

	2013 Ratings (Outlook)	2019 Ratings (Outlook)
Moody's Investors Service	**Baa1 (Negative)**	**A2 (Stable)**
Standard and Poor's	**A- (Negative)**	**A (Stable)**
Fitch Ratings	**A- (Negative)**	**A (Stable)**

LIPA
Long Island Power Authority

DIVERSITY AND INCLUSION

In May 2019, **the LIPA Board of Trustees adopted a Diversity and Inclusion Policy** that demonstrates LIPA's commitment to a workplace and society that values people from all backgrounds and personal characteristics. One of the ways LIPA demonstrates its commitment is by encouraging participation by Minority and Women Owned Business Enterprises (MWBE) and Service-Disabled Veteran-Owned Businesses in procurements by LIPA and PSEG Long Island.

New York State issues a report card scoring how well state agencies and public authorities include MWBE suppliers in their procurements. For 2019, **LIPA received the highest possible rating, an A+, for our engagement and support of MWBE suppliers**.

A PSEG Long Island employee inspects a newly installed Smart Meter.

CONCLUSION

This past year taught us a lot. While we continue to make significant progress towards the Board's vision for a Clean, Lean, and Customer-First utility for our customer-owners, we also have important work to do to address the shortcomings in PSEG Long Island's response to Tropical Storm Isaias.

Our first thought in everything we do is the best interests of our customers. The 2021 Budget funds their priorities while keeping residential electric bills flat.

I would like to thank the employees of LIPA and PSEG Long Island for their efforts and dedication to our customers this past year and for all that they will do in 2021 to deliver for customers first.

Thomas Falcone
Chief Executive Officer

November 18, 2020

LIPA CEO, Thomas Falcone, Tours PSEG Long Island's Out-of-State Crew Processing Center on August 5, 2020, at Bethpage State Park.

LIPA
Long Island Power Authority

LIPA
Long Island Power Authority

SECTION II

2021 PROPOSED BUDGET

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

Revenue Requirements

LIPA's annual revenue requirements are budgeted to remain relatively flat from 2020 to 2021 at $3.7 billion. Increases in debt service (including fixed obligation coverage), operating costs (due to inflation), higher anticipated write offs of customer charges due to the financial impacts of COVID-19 pandemic, and property tax assessments are being offset by decreases in power supply charges. These costs are further detailed on the following pages.

LIPA's revenue requirements are calculated in accordance with the practices of large public power utilities in the United States (the Public Power Model) and reflect the recovery of operating expenses in the current year plus debt and other fixed obligations, including fiscally sound levels of fixed obligation coverage.

LIPA's methodology for calculating revenue requirements and fixed obligation coverage excludes certain non-cash expenses such as depreciation and amortization (the costs of which are generally recovered in revenues through debt service payments) and the voluntary contributions to the Other Post Employment Benefits (OPEBs) Account, which are available to first make debt payments, if needed. LIPA's financial policies are further detailed in the description of debt service and fixed obligation coverage requirements.

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Revenue Requirements
(Thousands of Dollars)

Description		2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
Operating and Managed Expenses								
PSEG Long Island Operating and Managed Expenses	(a)	$ 694,390	$ 705,523	$ 989,507	$ 737,753	$ 32,230	$ 758,565	$ 20,812
PILOTs - Property-Based Taxes		291,787	298,472	296,772	302,802	4,330	308,916	6,115
PILOTs - Revenue-Based Taxes		34,681	35,351	36,220	36,705	1,354	39,498	2,793
LIPA Operating Expenses		71,294	87,956	81,376	90,475	2,519	93,519	3,044
Total Operating and Managed Expenses		**1,092,152**	**1,127,302**	**1,403,875**	**1,167,735**	**40,433**	**1,200,498**	**32,763**
Cash Adjustments								
Other Interest Costs		23,427	26,658	30,811	29,003	2,345	29,159	156
Suffolk Property Tax Settlement (Principal)		(22,685)	(26,630)	(25,548)	(29,100)	(2,470)	(31,881)	(2,780)
Visual Benefits Assessment (Principal)		(499)	(568)	(672)	(581)	(13)	(607)	(26)
PSEG Long Island OPEB Expenses		(42,783)	(50,421)	(47,175)	(51,522)	(1,101)	(51,037)	485
Total Cash Adjustments		**(42,540)**	**(50,961)**	**(42,585)**	**(52,199)**	**(1,239)**	**(54,365)**	**(2,165)**
Other Income								
Other Income and Deductions		73,258	48,386	48,642	35,204	(13,182)	33,487	(1,717)
Grant Income		34,874	28,704	261,147	23,470	(5,235)	23,192	(278)
Total Other Income		**108,131**	**77,091**	**309,790**	**58,674**	**(18,417)**	**56,679**	**(1,994)**
Debt Service								
UDSA Debt Service		327,140	319,030	319,030	367,388	48,358	357,548	(9,841)
LIPA Debt Service		225,569	265,763	257,712	238,280	(27,484)	266,338	28,058
Coverage		239,867	237,244	217,349	223,410	(13,834)	262,824	39,414
Total Debt Service		**792,576**	**822,038**	**794,090**	**829,078**	**7,041**	**886,709**	**57,631**
Power Supply Charge		1,799,907	1,845,571	1,801,268	1,776,149	(69,422)	1,780,900	4,751
Total Revenue Requirements	(a)	**$ 3,533,963**	**$ 3,666,860**	**$ 3,646,859**	**$ 3,662,090**	**$ (4,771)**	**$ 3,757,063**	**$ 94,974**

Note: (a) PSEG Long Island 2020 Approved Operating and Managed Expenses have been reduced by $10 million from $715.5 million to $705.5 million due to the projected underrun of the 2020 Utility 2.0 program that was identified as a refund to customers in the July 2020 Utility 2.0 filing.

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

Consolidated Statement of Revenues, Expenses, and Change in Net Position

LIPA's projection of Revenues and Expenses uses the accrual basis of accounting, which results in a change in net position of $29.0 million in 2021 and $78.8 million in 2022. Further information on the components of Revenues and Expenses are included on supplemental pages herein.

The factors contributing to the projection of net income in 2021 include certain non-cash items, such as: amortization of non-cash regulatory assets to expense; non-cash OPEBs for PSEG Long Island (Section II Page 28); other deferred expenses (Section II Page 12); and a change in depreciation rates including an increase in depreciation associated with the early retirement of conventional meters by Smart Meters (Section II Page 12).

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Consolidated Statements of Revenues, Expenses, and Changes in Net Position
(Thousands of Dollars)

Description		2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
Revenues	(a)	**$ 3,533,963**	**$ 3,666,860**	**$ 3,646,859**	**$ 3,662,090**	**$ (4,771)**	**$ 3,757,063**	**$ 94,974**
Power Supply Charge		1,799,907	1,845,571	1,801,268	1,776,149	(69,422)	1,780,900	4,751
Revenue Net of Power Supply Charge		**1,734,057**	**1,821,289**	**1,845,591**	**1,885,941**	**64,652**	**1,976,163**	**90,223**
PSEG Long Island Operating and Managed Expenses								
PSEG Long Island Operating Expenses	(a)	538,459	560,830	559,650	551,068	(9,762)	573,681	22,613
PSEG Long Island OPEB Expense	(b)	42,783	50,421	47,175	-	(50,421)	-	-
PSEG Long Island Managed Expenses		113,148	94,272	382,682	186,685	92,413	184,884	(1,801)
Utility Depreciation		198,212	260,288	244,363	256,145	(4,144)	287,509	31,364
Accelerated Depreciation of Conventional Meters		27,351	24,778	33,657	34,007	9,229	-	(34,007)
PILOTs - Revenue-Based Taxes		34,681	35,351	36,220	36,705	1,354	39,498	2,793
PILOTs - Property-Based Taxes		291,787	298,472	296,772	302,802	4,330	308,916	6,115
LIPA Operating Expenses		71,294	87,956	81,376	90,475	2,519	93,519	3,044
LIPA Depreciation and Amortization		136,780	137,701	136,892	137,489	(212)	138,820	1,331
Interest Expense		363,674	364,461	362,682	345,834	(18,627)	353,707	7,873
Total Expenses		**1,818,169**	**1,914,531**	**2,181,467**	**1,941,210**	**26,679**	**1,980,534**	**39,324**
Other Income and Deductions		**73,258**	**57,617**	**54,334**	**44,062**	**(13,556)**	**42,403**	**(1,659)**
Grant Income		**34,874**	**39,156**	**273,328**	**40,241**	**1,085**	**40,752**	**510**
Change in Net Position	(a)	**$ 24,019**	**$ 3,531**	**$ (8,215)**	**$ 29,033**	**$ 25,502**	**$ 78,784**	**$ 49,750**

Note: (a) PSEG Long Island 2020 Approved Operating Expenses have been reduced by $10 million from $570.8 million to $560.8 million due to the projected underrun of the 2020 Utility 2.0 program that was identified as a refund to customers in the July 2020 Utility 2.0 filing.
(b) Effective 2021, PSEG Long Island OPEB Expenses will be reported under the PSEG Long Island Managed Expenses and no longer be part of the PSEG Long Island Operating Expenses.

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

Sales and Revenues

Revenues are derived primarily from retail sales of electricity to residential and commercial customers. Also included are revenues from electric sales to public authorities and street lighting. In accordance with LIPA's Tariff for Electric Service (the Tariff), LIPA's Delivery Charge recovers the costs associated with maintaining and improving the transmission and distribution system and serving customers. LIPA recovers costs associated with purchasing and producing electric energy (fuel and purchased power) through the Power Supply Charge. LIPA also has various surcharges and non-electric service charges, such as those to recover costs associated with its distributed energy programs, assessments, revenue-related PILOTs, fees for pole attachments, late payment charges to customers whose bills are in arrears, and other miscellaneous service fees.

PSEG Long Island's proposed sales forecast for 2021 projects a 3.4% decline from the approved 2020 Budget. The sales decline reflects continuing weakness in the current economic outlook mainly due to the COVID-19 pandemic. In particular, commercial sales are projected to decline partially offset by increased sales to the residential customer class.

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Sales and Revenues
(Thousands of Dollars)

Description		2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
Sales of Electricity (MWh)								
Residential Sales		9,075,913	8,664,796	9,321,094	9,159,371	494,575	8,886,135	(273,236)
Commercial Sales		9,249,787	9,491,211	8,209,580	8,379,397	(1,111,814)	8,543,087	163,690
Other Sales to Public Authorities/Street Lighting		474,911	533,826	490,887	519,540	(14,286)	519,540	-
Total Sales of Electricity (MWh)		**18,800,611**	**18,689,834**	**18,021,562**	**18,058,308**	**(631,525)**	**17,948,762**	**(109,546)**
Revenues by Sector (Thousands of Dollars)								
Residential		$ 1,875,351	$ 1,867,458	$ 2,018,655	$ 1,978,972	$ 111,514	$ 2,060,288	$ 81,317
Commercial		1,553,239	1,740,068	1,523,132	1,627,763	(112,306)	1,684,598	56,835
Other Public Authorities/Street Lighting		55,327	66,886	60,584	65,229	(1,658)	65,024	(205)
ESCO Revenue		41,652	12,503	10,582	5,947	(6,557)	5,894	(53)
Other Regulatory Amortizations and Deferrals	(a)	(19,173)	(49,167)	14,210	(45,000)	4,166	(88,196)	(43,196)
Miscellaneous Revenues		27,567	29,111	19,695	29,180	69	29,455	275
Total Revenues		**$ 3,533,963**	**$ 3,666,860**	**$ 3,646,859**	**$ 3,662,090**	**$ (4,771)**	**$ 3,757,063**	**$ 94,974**
Revenues by Component (Thousands of Dollars)								
Delivery Charge (RDM Target)		$ 1,304,409	$ 1,375,686	$ 1,357,512	$ 1,431,929	$ 56,243	$ 1,506,300	$ 74,371
Power Supply Charge		1,778,830	1,845,571	1,797,615	1,776,149	(69,422)	1,780,900	4,751
T&D Property Tax	(b)	291,787	298,472	296,772	302,802	4,330	308,916	6,115
Energy Efficiency and Distributed Energy (DER)		63,165	69,720	67,286	61,405	(8,315)	67,310	5,905
New York State Assessment		9,980	10,318	9,716	10,937	619	11,097	160
Suffolk Property Tax Settlement		44,877	47,336	46,253	48,197	861	49,237	1,040
Visual Benefits Assessment (VBA)		989	1,029	1,129	1,003	(27)	996	(7)
Revenue Related PILOTS		34,681	35,351	36,220	36,705	1,354	39,498	2,793
RDM Collection/(Refund)		(33,007)	(17,829)	(20,589)	(28,773)	(10,944)	18,460	47,232
DSA Collection/(Refund)		31,757	23,426	23,204	37,557	14,130	33,091	(4,466)
T&D Property Tax Collection/(Refund)	(b)	(1,897)	(2,166)	(2,166)	-	2,166	-	-
Other Regulatory Amortizations and Deferrals	(a)	(19,173)	(49,167)	14,210	(45,000)	4,166	(88,196)	(43,196)
Miscellaneous Revenues		27,567	29,111	19,695	29,180	69	29,455	275
Total Revenues		**$ 3,533,963**	**$ 3,666,860**	**$ 3,646,859**	**$ 3,662,090**	**$ (4,771)**	**$ 3,757,063**	**$ 94,974**

Note: (a) PSEG Long Island 2020 Other Regulatory Amortizations and Deferrals have been reduced by $10 million from ($39.2) million to ($49.2) million due to the projected underrun of the 2020 Utility 2.0 program that was identified as a refund to customers in the July 2020 Utility 2.0 filing.

(b) T&D Property Tax is a component of Delivery Charge.

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

Power Supply Cost

Power supply costs are budgeted at $1.78 billion for 2021, a decrease of $69.4 million as compared to the approved Budget for 2020. The decrease is mainly attributable to lower projected commodity costs, which are driven by lower projected energy sales as well as projected favorable hedge positions. The decrease is also driven by lower renewable costs due to the expiration of certain purchased power agreements.

Power supply cost projections are prepared utilizing a generation economic dispatch model that considers, among other variables, the availability and efficiency of generating resources, delivered fuel prices, and environmental regulatory requirements.

In addition to the costs for gas and oil consumed in the generation of electricity, power supply costs include the cost of emission allowances, generating unit and transmission cable capacity, costs charged by the New York, New England and PJM independent system operators (ISO), electric power wheeling, Zero Emission Credits, services received under the power supply and fuel management agreements, fuel hedging program costs, economy energy purchases, energy and Renewable Energy Credits from renewable resource as well as LIPA's 18% share of the Nine Mile Point 2 nuclear generating station, the National Grid Power Supply Agreement (PSA), and certain PILOTs.

Description	Net Change	Cause
Capacity	($11.5M)	Projected decrease due to the expiration of the Jamaica Bay and Bayswater contracts partially offset by higher capacity market purchases.
Purchased Power	$60.4M	Increase in PJM Regional Transmission Expansion Plan in addition to higher costs associated with ISO energy purchases.
Commodity (gas & oil)	($55.4M)	Decrease in gas and oil costs mainly due to lower system sales, lower oil prices and favorable hedging positions.
Pass-through Property Taxes	$9.3M	Projected increase in PSA property taxes and school district payments related to the property tax settlements.
Renewables	($48.8M)	Projected decrease due to the expiration of the Bear Swamp and Brookfield purchase power agreements.
Other	($23.4M)	Lower Y49 cable charges associated with 2 year contract extension and reduced need for east-end temporary generation.
Total	($69.4M)	

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Power Supply Charge
(Thousands of Dollars)

Description	2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
Capacity							
Capacity Charges	$ 401,061	$ 390,271	$ 381,026	$ 377,071	$ (13,200)	$ 375,015	$ (2,055)
National Grid (PSA)	246,088	256,604	254,166	258,263	1,660	261,263	3,000
Total Capacity	**647,150**	**646,875**	**635,193**	**635,334**	**(11,541)**	**636,279**	**945**
Purchased Power							
Purchased Power	361,795	385,368	364,311	445,816	60,448	449,597	3,781
Total Purchased Power	**361,795**	**385,368**	**364,311**	**445,816**	**60,448**	**449,597**	**3,781**
Commodity							
Natural Gas	239,402	226,645	247,568	176,725	(49,920)	173,193	(3,531)
Fuel Oil	36,708	25,990	41,739	20,475	(5,515)	20,980	505
Total Commodity	**276,111**	**252,635**	**289,307**	**197,200**	**(55,435)**	**194,173**	**(3,026)**
Renewables							
Renewable Power	139,542	147,598	120,836	98,836	(48,762)	109,316	10,480
Total Renewables	**139,542**	**147,598**	**120,836**	**98,836**	**(48,762)**	**109,316**	**10,480**
Other							
Transmission	42,582	40,491	41,271	29,842	(10,648)	24,105	(5,738)
Nine Mile Nuclear Fuel	41,793	45,619	39,676	36,914	(8,705)	36,390	(524)
Regional Greenhouse Gas Initiative (RGGI)	19,026	21,401	16,069	22,561	1,160	24,150	1,590
Zero Emissions Credits	36,205	51,398	47,404	50,867	(532)	51,937	1,071
Fuel and Power Supply Management Services	20,647	20,085	19,972	20,453	369	20,831	377
Other	811	13,210	6,205	8,105	(5,106)	8,851	747
Total Other	**161,064**	**192,203**	**170,598**	**168,742**	**(23,461)**	**166,264**	**(2,478)**
Pass Through Property Taxes							
National Grid (PSA)	200,908	210,032	210,032	218,430	8,399	213,354	(5,076)
Fast Track Units	9,303	6,843	6,910	6,945	102	7,031	86
Nine Mile	4,034	4,018	4,082	4,846	828	4,886	40
Total Pass Through Property Taxes	**214,245**	**220,893**	**221,024**	**230,221**	**9,328**	**225,271**	**(4,950)**
Total Power Supply Charge	**$ 1,799,907**	**$ 1,845,571**	**$ 1,801,268**	**$ 1,776,149**	**$ (69,422)**	**$ 1,780,900**	**$ 4,751**

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

Operating Expenses

Total Operating Expenses are budgeted at $828.2 million in 2021 and projected at $852.1 million in 2022.

Operating Expenses are costs associated with operating and maintaining LIPA's Transmission and Distribution system and consist of three major expense categories:

(i) PSEG Long Island Operating Expenses (expenses which PSEG Long Island must remain within 102% of budget to earn incentive compensation);

(ii) PSEG Long Island Managed Expenses (expenses which PSEG Long Island manages but are substantially outside of its control); and

(iii) LIPA's Operating Expenses.

PSEG Long Island Operating Expenses include costs related to the following major areas: Transmission and Distribution, Customer Services, Business Services, Power Markets and Energy Efficiency Programs. The budget for the Energy Efficiency Programs incentivizes energy efficiency as well as beneficial electrification (e.g. electric vehicles and heat pumps), among other things. PSEG Long Island Operating Expenses for 2021 and 2022 include additional costs related to the Utility 2.0 Plan. These costs are associated with projects aimed at integrating Smart Meters and Distributed Energy Resources (DER) into LIPA's electric grid.

PSEG Long Island Managed Expenses include costs related to New York State assessments, uncollectible accounts, and storm preparation and restoration. Beginning in 2021, the Managed Expenses will include costs for Pensions and OPEBs previously reported under PSEG Long Island Operating Expenses. The 2021 budget for uncollectible accounts significantly increased over 2020 due to factors related to the COVID-19 pandemic. The budget for storm preparation and restoration costs is increasing to $70.0 million for 2021 and 2022 to closely align with the historical five-year average.

LIPA Operating Expenses includes the PSEG Long Island management fee and costs related to LIPA staff and outside professional services, as detailed on Section II Page 30.

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Operating Expenses
(Thousands of Dollars)

Description		2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
PSEG Long Island Operating Expenses	(a)(b)	**$ 581,242**	**$ 611,251**	**$ 606,825**	**$ 551,068**	**$ (60,183)**	**$ 573,681**	**$ 22,613**
PSEG Long Island Managed Expenses								
Uncollectible Accounts		17,609	20,835	28,512	30,362	9,528	31,427	1,064
Storm Restoration		86,549	60,000	341,843	70,000	10,000	70,000	-
NYS Assessment		9,980	10,318	9,716	10,937	619	11,097	160
Accretion of Asset Retirement Obligation		(1,265)	2,927	2,398	2,588	(339)	2,788	200
Pension (PSEG Operating Expenses)	(b)	-	-	-	24,304	24,304	21,532	(2,771)
OPEB (PSEG Operating Expenses)	(b)	-	-	-	48,307	48,307	47,852	(455)
Miscellaneous		275	192	214	188	(4)	188	-
Total PSEG Long Island Managed Expenses		**113,148**	**94,272**	**382,682**	**186,685**	**92,413**	**184,884**	**(1,801)**
Total PSEG Long Island Operating and Managed Expenses		**694,390**	**705,523**	**989,507**	**737,753**	**32,230**	**758,565**	**20,812**
LIPA Operating Expenses								
Management Fee (including incentive)		75,276	76,781	76,920	78,458	1,677	80,027	1,569
Capitalized Management Fee		(31,549)	(30,290)	(30,399)	(31,007)	(718)	(31,628)	(620)
LIPA Operating Costs		27,567	41,464	34,855	43,025	1,560	45,119	2,095
LIPA Operating Expenses		**71,294**	**87,956**	**81,376**	**90,475**	**2,519**	**93,519**	**3,044**
Total PSEG Long Island & LIPA Operating Expenses		**$ 765,684**	**$ 793,479**	**$ 1,070,883**	**$ 828,229**	**$ 34,749**	**$ 852,084**	**$ 23,855**

Note: (a) PSEG Long Island 2020 Approved Operating Expenses have been reduced by $10 million from $621.2 million to $611.2 million due to the projected underrun of the 2020 Utility 2.0 program that was identified as a refund to customers in the July 2020 Utility 2.0 filing.

(b) Pension and Other Post Employment Benefits (OPEB) have been shifted from PSEG Long Island Operating Expenses to Managed Expenses starting 2021 due to the impact of market and interest rate volatility on such expenses.

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

Depreciation and Amortization Expenses

Depreciation and Amortization Expenses are budgeted at $427.6 million in 2021 and projected at $426.3 million in 2022.

PSEG Long Island Managed Utility Depreciation consists of depreciation of transmission and distribution plant, information technology, and FEMA storm hardened assets.

The budgeted utility depreciation for 2021 reflects an increase of $5.1 million and a projected decrease for 2022 of approximately $(2.6) million. The 2021 increase is a result of accelerated depreciation on the replacement of conventional meters with Smart Meters, as well as an increase in depreciation on FEMA funded capital projects. This accelerated depreciation of conventional meters will be complete in 2021.

LIPA Depreciation and Amortization consists primarily of the amortization of the Acquisition Adjustment at $111.4 million annually. The Acquisition Adjustment is an intangible asset resulting from the merger with the Long Island Lighting Company in 1998. Also included is the amortization of certain regulatory assets related to pension and OPEB expenses for the former National Grid and current PSEG Long Island employees that directly serve LIPA's customers. These retirement benefit expenses are a contractual obligation of LIPA and are being amortized to align the expenses to coincide with the term of employment of the workforce contracted by LIPA under the Amended and Restated Operations Services Agreement. See LIPA's audited financial statements for more information.

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Depreciation and Amortization Expenses
(Thousands of Dollars)

Description	2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
PSEG Long Island Managed Utility Depreciation	$ 191,547	$ 248,675	$ 230,829	$ 237,509	$ (11,166)	$ 267,998	$ 30,489
Accelerated Depreciation of Conventional Meters	27,351	24,778	33,657	34,007	9,229	-	(34,007)
Depreciation Expense Related to FEMA Capital Projects	6,665	11,613	13,534	18,635	7,022	19,511	876
Total PSEG Long Island Managed Utility Depreciation	**225,563**	**285,066**	**278,019**	**290,151**	**5,085**	**287,509**	**(2,642)**
LIPA Depreciation and Amortization							
Amortization of Acquisition Adjustment	111,374	111,375	111,517	111,375	-	111,375	-
Amortization of OPEB & Pension Deferrals	25,014	25,015	25,014	25,014	-	25,014	-
Depreciation - LIPA	392	1,312	360	1,100	(212)	2,431	1,331
Total LIPA Depreciation and Amortization	**136,780**	**137,701**	**136,892**	**137,489**	**(212)**	**138,820**	**1,331**
Total Depreciation and Amortization Expenses	**$ 362,344**	**$ 422,768**	**$ 414,911**	**$ 427,641**	**$ 4,874**	**$ 426,329**	**$ (1,312)**

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

Taxes, Payments-in-Lieu of Taxes and Assessments

Payments-In-Lieu of Taxes (PILOTs) and Assessments are budgeted at $701.7 million in 2021 and projected at $710.4 million in 2022.

Revenue-based PILOTs are calculated using gross revenues received from the sale of electricity and other sources of revenue and are subject to true up to actual cost through a PILOT payments recovery rider.

Additionally, LIPA incurs property-based taxes and PILOTs associated with generating assets. These costs, as with all power supply costs, are reconciled to actual costs. National Grid Power Supply Agreement (PSA) related taxes are budgeted at $218.4 million in 2021 and projected at $213.4 million in 2022. In 2018, LIPA concluded a property tax settlement with the Village of Port Jefferson and the Town of Brookhaven. In 2020, LIPA reached a property tax settlement with the Town of Huntington and the Northport - East Northport school district. LIPA continues to challenge other property tax assessments on the PSA generation assets, which are significantly over-assessed. LIPA has also exercised its right to ramp down two National Grid units that fall under the PSA. This will result in reduction in property taxes in future years.

The property-based PILOTs related to the Fast Track Units are budgeted at $6.9 million in 2021.

As LIPA owns 18% of the Nine Mile Point 2 nuclear power plant, it is also responsible for paying a share of the property taxes. LIPA's share of these taxes are budgeted at approximately $4.8 million in 2021.

The New York State Department of Public Service (DPS) Administrative Assessment recovers costs related to DPS' oversight of LIPA and PSEG Long Island's operations. This cost is $10.9 million in 2021.

LIPA collects sales taxes on behalf of local municipalities. Those taxes are estimated at $120.9 million in 2021 and $125.4 million in 2022.

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Taxes, Payments-in-Lieu of Taxes and Assessments
(Thousands of Dollars)

Description	2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
PILOTs - Revenue-Based Taxes	**$ 34,681**	**$ 35,351**	**$ 36,220**	**$ 36,705**	**$ 1,354**	**$ 39,498**	**$ 2,793**
PILOTs - Property-Based Taxes	**291,787**	**298,472**	**296,772**	**302,802**	**4,330**	**308,916**	**6,115**
Property Taxes in Power Supply Charge							
National Grid (PSA) Property Taxes	200,908	210,032	210,032	218,430	8,399	213,354	(5,076)
Fast Track Units	9,303	6,843	6,910	6,945	102	7,031	86
Nine Mile PILOTs	4,034	4,018	4,082	4,846	828	4,886	40
Total Property Taxes in Power Supply Charge	**214,245**	**220,893**	**221,024**	**230,221**	**9,328**	**225,271**	**(4,950)**
Other Taxes and Assessments							
NYS Department of Public Service	9,980	10,318	9,716	10,937	619	11,097	160
NYS Office of Real Property Services	192	192	188	188	(4)	188	-
Total Other Taxes and Assessments	**10,171**	**10,510**	**9,904**	**11,125**	**615**	**11,285**	**160**
Total Taxes and Assessments Before Sales Taxes	**550,884**	**565,226**	**563,920**	**580,852**	**15,626**	**584,970**	**4,118**
Sales Taxes (a)	**111,648**	**112,725**	**114,923**	**120,845**	**8,120**	**125,385**	**4,540**
Total PILOTs, Sales, State and Local Taxes and Assessments	**$ 662,532**	**$ 677,951**	**$ 678,843**	**$ 701,698**	**$ 23,747**	**$ 710,356**	**$ 8,658**

Note: (a) Sales tax revenue is collected by LIPA in accordance with local municipal law. Sales taxes are recorded as liabilities by LIPA as they are collected on behalf of and transferred to local government jurisdictions.

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

Other Income and Deductions

Other Income and Deductions are budgeted at $44.1 million for 2021 and projected at $42.4 million for 2022. The decrease is based on lower earnings on investments due to the current environment of lower interest rates.

Other Income and Deductions consists of income and interest generated from LIPA's short-term investments, including the Rate Stabilization Fund and the Construction Fund, earnings on the Nine Mile Point 2 nuclear decommissioning trust fund, earnings on the OPEB Account, carrying charges accrued on deferred balances related to the Suffolk Property Tax Settlement, and miscellaneous sources of revenues and expenses, such as income from certain customer-requested work not included in electric rates.

Projected interest rates on short-term investments are updated to prevailing interest rates annually as part of the budget process and differences between projected and actual interest rates are reconciled annually through the Delivery Service Adjustment.

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Other Income and Deductions
(Thousands of Dollars)

Description	2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
Short-Term Investment Income	$ 19,533	$ 16,636	$ 14,432	$ 10,689	$ (5,947)	$ 10,776	$ 87
Interest Income from:							
Suffolk Property Tax Settlement	22,192	20,706	20,706	19,097	(1,609)	17,357	(1,740)
Visual Benefits Assessment	490	462	457	422	(40)	389	(33)
OPEB Account	9,171	5,847	6,120	1,687	(4,160)	1,766	79
PSEG Long Island Funding Accounts	1,020	2,664	1,658	1,156	(1,508)	1,156	-
Miscellaneous Income and Deductions - LIPA	206	201	1,933	53	(148)	53	-
Miscellaneous Income and Deductions - PSEG Long Island	4,085	1,872	3,338	2,101	229	1,991	(110)
Subtotal Other Income and Deductions	**$ 56,697**	**$ 48,386**	**$ 48,642**	**$ 35,204**	**$ (13,182)**	**$ 33,487**	**$ (1,717)**
Nuclear Decommissioning Trust Fund	16,560	9,231	5,691	8,858	(373)	8,916	58
Total Other Income and Deductions	**$ 73,258**	**$ 57,617**	**$ 54,334**	**$ 44,062**	**$ (13,556)**	**$ 42,403**	**$ (1,659)**

Long Island Power Authority
2020 Approved and 2021 Projected Operating and Capital Budgets

Grant Income

In 2021, Grant Income consists primarily of (i) a grant of $20.0 million from NYSERDA from Regional Greenhouse Gas Initiative (RGGI) funds to support PSEG Long Island's energy efficiency programs and (ii) subsidy payments totaling $3.5 million from the United States Treasury equal to approximately 33% of the interest on LIPA's debt issued as Build America Bonds.

LIPA pays for RGGI allowances as part of its Power Supply Charge. This RGGI grant represents the return of a portion of those funds to support energy efficiency programs on Long Island.

In February 2014, LIPA signed a Letter of Undertaking with FEMA that provides for $730.0 million of grant funding for storm hardening measures. To better reflect the nature of this grant it will be amortized to Grant Income in an amount equal to the incremental depreciation expense incurred as a result of the storm hardening program. This amortization is estimated at $16.8 million in 2021 and $17.6 million in 2022.

The 2020 projection includes the recognition of anticipated FEMA reimbursements requested for (i) Tropical Storm Isaias estimated at $224.4 million, (ii) Winter Storm Stella estimated at $3.3 million, and (iii) COVID-19 pandemic related costs estimated at $4.2 million.

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Grant Income
(Thousands of Dollars)

Description	2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
Build America Bonds Subsidy - U.S. Treasury	$ 3,875	$ 3,704	$ 3,717	$ 3,470	$ (235)	$ 3,192	$ (278)
Efficiency & DER - RGGI Funding	25,000	25,000	25,000	20,000	(5,000)	20,000	-
FEMA Grant Tropical Storm Isaias	-	-	224,425	-	-	-	-
Other Grant Income	-	-	8,005	-	-	-	-
Subtotal Grant Income	**28,875**	**28,704**	**261,147**	**23,470**	**(5,235)**	**23,192**	**(278)**
Amortization of Deferred FEMA Grant	**5,999**	**10,452**	**12,180**	**16,772**	**6,320**	**17,560**	**788**
Total Grant Income	**$ 34,874**	**$ 39,156**	**$ 273,328**	**$ 40,241**	**$ 1,085**	**$ 40,752**	**$ 510**

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

Interest Expense

Interest expense is budgeted at $345.8 million in 2021 and projected at $353.7 million in 2022. The budget is based on forecasted levels of outstanding debt, associated fees, and the amortization of previously deferred debt-related charges and credits. Actual interest rates on variable rate debt are updated to prevailing interest rates each year as part of the annual budget process and differences between projected and actual interest rates are reconciled annually through the Delivery Service Adjustment ensuring customers pay only actual costs.

Interest expense reflects the accrual of interest on outstanding debt in the calendar year. It can differ from interest payments made to bondholders with respect to timing, but the actual amounts will be the same over the life of the bonds.

LIPA recognizes the full value of bond issuance costs in the year of the bond sale, instead of amortizing the costs over the life of the bond.

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Interest Expense
(Thousands of Dollars)

Description	2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
Accrued Interest Expense on Debt Securities	$ 373,315	$ 377,089	$ 373,577	$ 373,004	$ (4,085)	$ 384,903	$ 11,899
Amortization of Premium	(60,841)	(64,590)	(66,253)	(71,405)	(6,815)	(74,913)	(3,508)
Interest Expense on Debt Securities (Accrued)	**312,473**	**312,499**	**307,324**	**301,599**	**(10,900)**	**309,990**	**8,390**
Other Interest Expense							
Amortization of Deferred Debt Issue Costs	3,017	2,917	2,905	2,724	(193)	2,542	(183)
Amortization of Deferred Defeasance Costs	28,872	25,194	25,521	15,912	(9,282)	14,543	(1,369)
Other Interest Amortizations	(6,733)	(6,857)	(6,859)	(6,990)	(133)	(5,638)	1,353
Bond Issuance Costs	2,618	4,050	2,980	3,586	(464)	3,111	(475)
Other Interest Amortizations (Accrued)	**27,773**	**25,304**	**24,547**	**15,232**	**(10,072)**	**14,558**	**(674)**
Interest Rate Swap Payments	15,410	18,143	23,458	23,011	4,869	23,023	11
Letter of Credit and Remarketing Fees	6,287	6,793	6,051	4,246	(2,547)	4,246	-
Interest on Customer Security Deposits	591	488	8	11	(477)	142	131
Bond Administration Costs and Bank Fees	1,139	1,235	1,294	1,735	500	1,749	14
Other Interest Costs (Cash)	**23,427**	**26,658**	**30,811**	**29,003**	**2,345**	**29,159**	**156**
Total Interest Expense	**$ 363,674**	**$ 364,461**	**$ 362,682**	**$ 345,834**	**$ (18,627)**	**$ 353,707**	**$ 7,873**

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

Debt Service Requirements

Debt service consists of principal and interest payments due to bondholders. Debt service payments are reported separately for LIPA debt and UDSA debt. LIPA refinanced debt through the UDSA, resulting in a net present value savings of $492.0 million to customers.

Consistent with the Public Power Model, LIPA also recovers "fixed obligation coverage." Fixed obligation coverage is the portion of LIPA's capital program funded by cash flow in each year rather than by new borrowings. Fixed obligation coverage is a ratio based on LIPA's annual debt service payments plus the imputed payments associated with long-term obligations such as power supply contracts and office and vehicle leases.

The LIPA's Board financial policy includes several components:

(i) **Mid-A Ratings Target:** LIPA's bond rating is A2 (stable), A (stable) and A (stable) (Moody's, S&P, and Fitch, respectively). LIPA's target is to maintain or improve these ratings.

(ii) **Borrow Less than 64% of Capital Spending:** LIPA targets to borrow less than 64% of capital spending, with the balance funded by cash flow. This level is typical for large public power utilities and an industry best practice.

(iii) **Fixed Obligation Coverage Target:** LIPA's Fixed Obligation Coverage Ratio was revised in 2020 to reflect the impact of a new Governmental Accounting Standards Board (GASB) Statement No. 87 - Leases. This new standard expanded the definition of a long-term lease. Since long-term leases are a component in the Fixed Obligation Coverage Ratio, to ensure that the updated value of long-term leases results in the same level of cash flow as the prior lease standard, the coverage ratio was reduced from 1.45x to 1.35x starting in 2020. The coverage ratio remains at 1.35x in 2021 but is projected to increase to 1.40x in 2022 to reduce borrowing.

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Debt Service Requirements
(Thousands of Dollars)

Description		2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
UDSA Debt Service								
UDSA Debt Service		$ 327,140	$ 319,030	$ 319,030	$ 367,388	$ 48,358	$ 357,548	$ (9,841)
Board Policy Target Coverage Ratio on UDSA Debt Service		1.00 x	1.00 x	1.00 x	1.00 x		1.00 x	
UDSA Debt Service Plus Coverage		327,140	319,030	319,030	367,388	48,358	357,548	(9,841)
LIPA Debt Service								
LIPA Debt Service on Fixed Rate Debt		196,941	234,558	234,067	217,172	(17,387)	230,531	13,360
LIPA Debt Service on Variable Rate Debt		28,628	31,205	23,645	21,108	(10,097)	35,806	14,698
Total LIPA Debt Service		225,569	265,763	257,712	238,280	(27,484)	266,338	28,058
Board Policy Target Coverage Ratio on LIPA Debt Service	(a)	1.45 x	1.35 x	1.35 x	1.35 x		1.40 x	
LIPA Debt Service Plus Coverage		327,075	357,508	346,677	321,678	(35,830)	371,541	49,863
Long-term Obligations								
LIPA Long Term Obligations	(a)	263,457	421,481	421,472	400,035	(21,445)	399,040	(996)
Board Policy Target Coverage Ratio on Long-term Obligations	(a)	0.45 x	0.35 x	0.35 x	0.35 x		0.40 x	
LIPA Long-term Obligations Coverage		118,556	145,500	145,497	140,012	(5,487)	157,621	17,608
Revenue Net of Requirements								
Adjustment to Coverage Due to Revenue Net of Requirements			-	(17,113)	-	-	-	-
Total Debt Service and Coverage		$ 772,771	$ 822,038	$ 794,090	$ 829,078	$ 7,041	$ 886,709	$ 57,631
Total Projected Debt Service and Coverage								
Total Projected Debt Service		552,709	584,793	576,742	605,668	20,875	623,885	18,217
Total Coverage		239,867	237,244	217,349	223,410	(13,834)	262,824	39,414
Projected Coverage Ratio on LIPA Obligations	(a)	1.49 x	1.35 x	1.32 x	1.35 x		1.40 x	
Projected Coverage on LIPA & UDSA Obligations		1.30 x	1.24 x	1.22 x	1.22 x		1.26 x	

Note: (a) Coverage ratio for 2020 reflects implementation of GASB Statement No. 87 for leases. A 1.35x coverage ratio in 2020 provides the same cash flow as 1.45x coverage ratio would have generated had GASB No. 87 not been adopted. A higher stated level of Long-Term Obligations requires a lower coverage ratio to generate the same cash flow.

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

Capital Expenditures

Capital Expenditures are budgeted at $765.7 million in 2021 and are projected at $707.8 million in 2022. The 2021 Capital Budget includes a deferral of certain 2020 Capital projects into 2021, as shown in Section II Page 43.

Transmission and Distribution projects are prioritized using a Value and Risk Evaluation protocol to determine the projects that have the highest value for system and company performance. The projects pursued will improve system reliability and resiliency and include a new Storm Hardening Distribution Circuit Program and the continuation of the Multiple Customer Outage Program to address customers with poor reliability.

In February 2014, LIPA signed a Letter of Undertaking with FEMA that provides for a $730.0 million storm hardening initiative. As part of this program, FEMA will contribute 90% of the cost to this project. Construction is scheduled to complete at the end of the second quarter of 2021.

Information Technology projects include improvements and upgrades to systems that support Transmission and Distribution, Customer Services and IT infrastructure. Capital expenditures for Customer Services are primarily comprised of costs associated with residential and commercial meter replacement.

Capital expenditures for 2021 and 2022 include additional costs related to the Utility 2.0 Plan. These costs are associated with projects aimed at Smart Meters and integrating Distributed Energy Resources (DER) into LIPA's electric grid.

Nine Mile Point 2 Capital Expenditures relates to LIPA's share of capital expenses for the NMP2 nuclear generating station of which LIPA owns an undivided 18% interest.

The percent of the Capital Budget funded from debt will exceed LIPA's target of 64% over a three-year period in 2021 and 2022. This is due to the timing of the Smart Meter project as well as the need to minimize rate impact to customers who are struggling financially due to the COVID-19 pandemic. LIPA is currently forecasting to return to the targeted level by 2024.

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Capital Expenditures
(Thousands of Dollars)

Description		2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
Transmission and Distribution								
Regulatory Driven		$ 29,739	$ 101,435	$ 61,269	$ 6,000	$ (95,435)	$ -	$ (6,000)
Load Growth		174,527	225,520	219,949	214,349	(11,171)	202,982	(11,368)
Reliability		190,232	163,186	171,272	196,212	33,026	217,376	21,164
Storm Hardening		-	37,000	61,568	70,000	33,000	50,000	(20,000)
Economic, Salvage, Tools, Equipment & Other		52,184	39,464	41,193	27,867	(11,596)	92,218	64,351
Total Transmission and Distribution Projects		**446,682**	**566,605**	**555,250**	**514,429**	**(52,176)**	**562,576**	**48,147**
Other PSEG Long Island Capital Expenditures								
Information Technology		34,569	42,883	29,310	49,647	6,764	34,598	(15,049)
Customer Operations		17,709	22,181	25,188	17,282	(4,899)	14,754	(2,527)
Other General Plant		4,639	13,027	7,087	11,517	(1,510)	3,072	(8,445)
Fleet		6,413	8,875	8,875	9,719	844	7,222	(2,497)
Utility 2.0 (Includes carry over)	(a)	59,548	76,537	73,056	97,511	20,975	32,126	(65,385)
Budget Amendment to carry over projects		-	(27,668)	-	-	27,668	-	-
Total PSEG Long Island Excluding FEMA	(b)	**569,561**	**702,439**	**698,765**	**700,105**	**(2,334)**	**654,348**	**(45,757)**
FEMA Storm Hardening		116,363	58,665	48,822	24,414	(34,250)	-	(24,414)
Storm Capitalization		4,109	5,934	23,388	4,468	(1,466)	4,468	-
Total PSEG Long Island Capital		**690,033**	**767,038**	**770,975**	**728,987**	**(38,050)**	**658,816**	**(70,171)**
Nine Mile Point 2		23,254	15,760	16,288	6,910	(8,850)	25,557	18,646
Property Acquisition and Development		-	-	-	12,000	12,000	5,000	(7,000)
LIPA - Other		1,482	6,650	3,651	6,500	(150)	6,165	(335)
Capital OPEB Adjustment	(c)	-	(17,715)	(17,715)	(19,711)	(1,996)	(19,395)	316
Capitalized Management Fee		31,549	30,290	30,399	31,007	718	31,628	620
Total Capital Expenditures	(b)	**$ 746,317**	**$ 802,022**	**$ 803,597**	**$ 765,693**	**$ (36,329)**	**$ 707,770**	**$ (57,924)**
Funding for Capital Expenditures								
FEMA Contribution (90% of Project Costs)	(d)		$ 52,798	$ 43,940	$ 21,973	$ (30,825)	$ -	$ (21,973)
Coverage from Operating Revenue								
Total Coverage			$ 237,244	$ 217,349	$ 223,410	$ (13,834)	$ 262,824	$ 39,414
Less Amount Projected for O&M OPEB Funding	(e)		(31,316)	(30,780)	(31,080)	236	(33,280)	(2,200)
Funding Required from New Debt			543,296	573,089	551,390	8,094	478,226	(73,164)
Total Funding for Capital Expenditures			**$ 802,022**	**$ 803,597**	**$ 765,693**	**$ (36,329)**	**$ 707,770**	**$ (57,924)**

Note: (a) The Approved 2020 Utility 2.0 budget of $67.2 million has been increased to reflect the (1) $10 million Utility 2.0 Smart Meters budget amendment acceleration from 2022 to 2020 partially offset by (2) $0.7 million budget carry over of Utility 2.0. See reconciliation table on the next page.

(b) The Approved 2020 Capital budget of $820.4 million has been reduced to reflect (1) $27.7 million budget amendment carry over to 2021 and (2) $0.7 million of U2.0 budget amendment carry over to 2021 partially offset by (3) $10.0 million accelerated implementation of the Smart Meters.

(c) Non Cash cost of Other Post Employment Benefits (OPEB) included in capital expenses above.

(d) Amounts not yet reimbursed by FEMA; pending completion of individual projects.

(e) Projected 2021 OPEB funding is $45.2 million, of which $13.9 million is capital and $31.1 million is O&M.

LIPA Long Island Power Authority

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Capital Expenditures
(Thousands of Dollars)

Description	2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
Percent of Capital Funded from Debt:							
LIPA Target		**64%**	**64%**	**64%**		**64%**	
Projected Including FEMA spending and reimbursement		**68%**	**71%**	**72%**		**68%**	
Projected Excluding FEMA spending and reimbursement		**72%**	**75%**	**74%**		**68%**	
Reconciliation of Utility 2.0							
Utility 2.0 Approved 2018 Filing	$ 59,548	$ 63,273	$ 61,669	$ 63,161	$ (112)	$ 52,267	$ (10,894)
Utility 2.0 AMI Acceleration 2022 to 2020	-	10,000	10,000	-	(10,000)	(10,000)	(10,000)
Utility 2.0 Smart Meters Acceleration 2022 to 2021	-	-	-	16,840	16,840	(16,840)	(33,680)
Utility 2.0 2018 Filing	59,548	73,273	71,669	80,001	6,728	25,427	(54,574)
Utility 2.0 2019 Filing	-	3,936	1,387	1,906	(2,029)	-	(1,906)
Utility 2.0 Carryover	-	(672)	-	-	672	-	-
Utility 2.0 2020 Filing	-	-	-	15,603	15,603	1,699	(13,904)
New Program Funding	-	-	-	-	-	5,000	5,000
Total Utility 2.0	**$ 59,548**	**$ 76,537**	**$ 73,056**	**$ 97,511**	**$ 20,975**	**$ 32,126**	**$ (65,385)**

Major Projects

(Projects with a total cost greater than $25 million)

Description	Justification	In Service Date	Cash Flow ($millions)				
			Project To Date Expenditures through 12/31/20	2021	2022	2023 and Beyond	Total Project Cost
Western Nassau Transmission (East Garden City- Valley Stream N-1-1): Install new 138kV underground cable	New NERC reliability standard	2020	$ 100.3	$ 6.0	$ -	$ -	$ 106.3
Two Way Radio System Replacement: Replace existing conventional radio system with new territory-wide radio system	Current system is a mix of legacy radio console, mobiles and portable radios with age of equipment ranging from 10 to 35 years old; vendors no longer support	2020	$ 40.9	$ 2.0	$ -	$ -	$ 42.9
Round Swamp Substation: Construct new 69/13kV substation	Load growth in Old Bethpage	2021	$ 4.6	$ 13.7	$ 11.8	$ -	$ 30.2
Riverhead - Canal: Install new 138 kV underground cable	Load growth in the South Fork	2021	$ 51.1	$ 22.9	$ -	$ -	$ 82.5
Ruland Rd - Plainview: Install new Underground 69kV transmission line	Load growth to support the Country Pointe Development and the new Round Swamp Substation	2022	$ 16.5	$ 22.0	$ 14.3	$ -	$ 52.8
Utility 2.0 Smart Meters: Replace existing meters with Smart Meters.	Improve operations, especially with regard to minimizing the impact of outages, and to gain valuable insight into system conditions and customer needs.	2022	$ 115.0	$ 65.6	$ 13.5	$ -	$ 194.1
Far Rockaway: Reconductor 33kV line and install series reactor on 33kV line	Lump load additions expected within 3 years.	2022	$ 0.7	$ 12.3	$ 17.7	$ -	$ 30.6
East Garden City: Switchgear replacement	Replace aging switchgears for improved reliability in East Garden City	2022	$ 0.1	$ 7.5	$ 7.3	$ 13.7	$ 28.6
Navy Rd: Construct new 23/13 kV substation	Load growth in Montauk	2023	$ 22.1	$ 5.0	$ 0.6	$ 4.0	$ 31.7
Massapequa: Establish new 69/13kV substation	Load growth in the town of Massapequa	2023	$ 2.9	$ 5.1	$ 10.9	$ 13.7	$ 32.6
Port Jefferson: Interconnection costs to reconductor 69kV Circuit to Stonybrook Substation	Part of NYISO Class Year 2017. Increase in renewable generation deliverability.	2023	$ 0.6	$ 1.5	$ 6.8	$ 22.6	$ 31.5
Transmission Operations Control Room Facility Replacement: Replace the existing Transmission Operations control room	Construct a new Transmission Control room to meet future expansion of the LIPA T&D system as well as continue to maintain a high level of system reliability	2023	$ -	$ 0.7	$ 30.1	$ 47.2	$ 78.0
Fire Island Pines: Install new 23 kV circuit to Ocean Beach	Increase reliability to Fire Island	2024	$ 1.9	$ 0.4	$ 12.1	$ 31.8	$ 46.1
Bridgehampton - Buell: Install a new 69kV underground cable	Load growth in the South Fork	2024	$ 3.1	$ 1.0	$ 0.9	$ 40.6	$ 45.5
Southampton: Install new 138kV cable to Deerfield	Increase in projected South Fork load requirements	2027	$ -	$ 0.8	$ 1.7	$ 113.4	$ 115.8
Syosset to Shore Road: Install new 138 kV transmission circuit	Support the deliverability of future supply resources interconnected to the LIPA system	2028	$ 0.2	$ -	$ -	$ 239.2	$ 239.4
Total Major Projects			$ 360.1	$ 166.5	$ 127.6	$ 526.1	$ 1,188.8

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

PSEG Long Island Operating Expenses

PSEG Long Island Operating Expenses are related to five major areas: Transmission and Distribution, Customer Services, Business Services, Power Markets and Energy Efficiency and Distributed Energy Programs. Total operating expenses are budgeted at $551.1 million for 2021 and projected at $573.7 million for 2022. Pension and OPEB expenses are excluded from the operating costs for these areas but are included in Utility 2.0 costs.

The PSEGLI Long Island 2021 operating budget, excluding the Utility 2.0 Program, is increasing by $13.6 million. This is driven by inflationary increases of $20.1 million and new initiatives of $3.4 million, which are offset by productivity savings of $9.9 million. The new initiatives consist of funding for the Jones Beach Energy and Nature Center, support costs for the new two-way radio network, and resources to prepare for the implementation of New York's Clean Energy Standard.

The approved operating expenses for 2020 have been decreased by $10.0 million due to the projected underrun of the 2020 Utility 2.0 program that was identified as a refund to customers in the July 2020 Utility 2.0 filing.

Operating expenses for 2021 of $551.1 million may shift between various lines of business during the year.

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

PSEG Long Island Operating Expenses
(Thousands of Dollars)

Description		2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
PSEG Long Island Operating Expenses								
Transmission & Distribution		$ 190,585	$ 163,941	$ 186,099	$ 169,871	$ 5,930	$ 178,012	$ 8,140
Customer Services		128,362	105,371	110,839	109,840	4,468	115,103	5,264
Business Services		164,775	155,990	149,692	158,310	2,320	165,897	7,586
Power Markets		12,364	11,938	10,950	12,956	1,017	13,576	621
Energy Efficiency & DER		84,411	87,434	82,582	87,243	(191)	90,097	2,854
Utility 2.0 Costs	(a)	4,420	34,057	10,470	24,300	(9,757)	28,143	3,843
Utility 2.0 Savings		(3,675)	(6,858)	(6,858)	(11,452)	(4,595)	(17,148)	(5,695)
Budget Amendment (Utility 2.0)	(a)	-	(10,000)	-	-	10,000	-	-
PSEG Long Island Operating Expenses (excluding Pension and OPEB)			541,875	543,774	551,068	9,193	573,681	22,613
Pension and OPEB	(b)		69,377	63,051	-	(69,377)	-	-
Total PSEG Long Island Operating Expenses		**581,242**	**611,252**	**606,825**	**551,068**	**(60,184)**	**573,681**	**22,613**

Note: (a) The 2020 Approved Operating Expenses have been reduced by $10 million due to the projected underrun of the 2020 Utility 2.0 budget that was identified as a refund to customers in the July 2020 filing. Pension and Other Post Employment Benefits (OPEB) is included in operating expenses above.

(b) Pension and Other Post Employment Benefits (OPEB) were removed to allow a comparison between 2020 and 2021. The table above reflects Pension and OPEB costs as a new category in order to tie to original budget.

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

LIPA Operating Expenses

LIPA Operating Expenses are budgeted at $90.5 million in 2021 and projected at $93.5 million in 2022. The 2021 plan represents an increase of $2.5 million as compared with the Approved Budget for 2020. The increase is largely driven by increased oversight functions and additional IT related costs in support of a new working environment offset by lower use of outside contractor support for Legal.

LIPA Operating Expenses include the PSEG Long Island management fee and costs related to LIPA staff and outside professional services.

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

LIPA Operating Expenses
(Thousands of Dollars)

Description		2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
LIPA Operating Expenses								
PSEG Long Island Management Fee	(a)	$ 75,276	$ 76,781	$ 76,920	$ 78,458	$ 1,677	$ 80,027	$ 1,569
Capitalized Management Fee		(31,549)	(30,290)	(30,399)	(31,007)	(718)	(31,628)	(620)
Total Operating Management Fee		**43,727**	**46,492**	**46,520**	**47,451**	**959**	**48,400**	**949**
LIPA Operating Expenses								
Employee Salaries & Benefits Expenses	(b)	9,860	12,804	13,109	15,043	2,239	15,495	451
Insurance		2,665	2,990	2,722	3,289	299	3,388	99
Office Rent		1,837	1,937	1,889	1,740	(197)	1,792	52
Other		637	1,519	1,046	1,470	(50)	1,514	44
Total Labor, General and Administrative		**14,998**	**19,251**	**18,765**	**21,543**	**2,292**	**22,189**	**646**
Engineering		153	1,000	633	950	(50)	929	(22)
Legal		4,568	8,140	5,317	6,280	(1,860)	6,468	188
Financial Services and Cash Management		1,887	3,565	1,814	2,483	(1,082)	3,357	874
Accounting Services		1,837	2,785	2,614	3,199	414	3,295	96
Information Technology		2,063	4,460	4,113	5,586	1,127	5,754	168
Risk Management		165	340	340	340	-	350	10
Grant Administration		116	200	17	200	-	260	60
Outside Services		1,779	1,724	1,243	2,444	720	2,517	73
Total Professional Services		**12,569**	**22,213**	**16,090**	**21,482**	**(731)**	**22,931**	**1,448**
Total LIPA Operating Expenses		**$ 71,294**	**$ 87,956**	**$ 81,376**	**$ 90,475**	**$ 2,519**	**$ 93,519**	**$ 3,044**

Note: (a) PSEG Long Island will forgo a portion of the Management Fee to cover customer claims for food and medicine spoilage that resulted from the extended outage following Tropical Storm Isaias. PSEG Long Island's current estimate for food and medicine spoilage claims is $6.1 million.

(b) Approximately $1.2 million of the increase in Salary and Benefits Expenses from 2019 to 2020 is attributable to a New York State Retirement System credit and OPEB Adjustment in 2019.

Utility Debt Securitization Authority
(A Component Unit of the Long Island Power Authority)
2021 Proposed and 2022 Projected Operating and Capital Budgets

Utility Debt Securitization Authority

The LIPA Reform Act created the Utility Debt Securitization Authority (UDSA) to issue restructuring bonds in an aggregate amount not to exceed $4.5 billion to refinance a portion of LIPA's debt at a lower cost. The issuance of Restructuring Bonds allowed LIPA to retire a portion of its outstanding indebtedness and provide savings to the Authority's customers on a net present value basis.

LIPA's Board adopted Financing Order No. 1 on October 3, 2013, Financing Orders No. 2, No. 3 and No. 4 on June 26, 2015 and Financing Order No. 5 on September 29, 2017, each authorizing the UDSA to issue Restructuring Bonds. Each financing order authorized Restructuring Bonds secured by a separate restructuring charge created pursuant to that financing order. A total of $4.5 billion of UDSA Restructuring Bonds have been issued, with no statutory capacity remaining.

The operations of the UDSA are presented as a proprietary fund following the accrual basis of accounting in order to recognize the flow of economic resources. Revenue which is based on the UDSA's Restructuring Charge is set at an amount sufficient to recover the debt service payments and other cash operating expenses that the UDSA incurs in any given year.

The UDSA is considered a blended component unit of LIPA. The results of operations are consolidated with LIPA for financial reporting purposes.

UDSA is forecasted to end 2020 with a change in net position of $15.7 million due to higher than expected revenues. These excess revenues are provided as a credit in the subsequent year's restructuring charge.

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Utility Debt Securitization Authority
(Thousands of Dollars)

Description	2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
Revenues	**$ 308,807**	**$ 320,482**	**$ 339,416**	**$ 349,589**	**$ 29,107**	**$ 361,539**	**$ 11,949**
Operating Expenses							
Uncollectible Accounts	**1,407**	**1,850**	**1,672**	**1,790**	**(60)**	**1,742**	**(47)**
General and Administrative Expense							
Ongoing Servicer Fee	2,065	2,250	2,250	2,250	-	2,250	-
Administration Fees	685	500	500	500	-	500	-
Bond Administration Fees	392	360	389	390	30	390	-
Directors and Officers Insurance	245	339	271	362	23	380	18
Accounting, Legal & Misc. Fees	121	205	155	155	(50)	155	-
Total General and Administrative Expense	**3,508**	**3,654**	**3,565**	**3,657**	**3**	**3,675**	**18**
Amortization of Restructuring Property	**169,341**	**170,316**	**170,503**	**221,742**	**51,426**	**216,389**	**(5,353)**
Interest Expense	196,248	192,041	192,807	187,619	(4,422)	179,694	(7,925)
Amortization of Premium	(44,779)	(45,706)	(45,706)	(45,119)	587	(42,050)	3,069
Amortization of Deferred Debt Issue Costs	2,268	2,175	2,169	2,039	(136)	1,886	(153)
Total Interest Expense	**153,737**	**148,510**	**149,271**	**144,539**	**(3,971)**	**139,530**	**(5,009)**
Reserve Fund Earnings	**3,812**	**4,011**	**1,283**	**1,441**	**(2,569)**	**1,441**	**-**
Change in Net Position	**$ (15,373)**	**$ 164**	**$ 15,689**	**$ (20,697)**	**$ (20,860)**	**$ 1,644**	**$ 22,341**

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

Projected Borrowing Requirements and Bank Facilities

LIPA expects to generate funds from operations of $192.3 million and $229.5 million in 2021 and 2022, respectively. The balance of capital expenditures are funded from the issuance of debt. In total, LIPA will fund $765.7 million of infrastructure investments in 2021 with new debt issuances of $555.8 million or approximately 72% debt financing and 28% grant and pay-as-you-go funding.

The percent of capital funded from debt will exceed LIPA's target of 64% over a three-year period in 2021 and 2022. This is due to the timing of the Smart Meter project as well as the need to minimize the rate impact to customers who are struggling financially due to COVID-19. As noted on the Debt Service Requirements page, LIPA will be increasing the coverage ratio starting in 2022 to generate additional cash flow from revenues in order to bring the percent of capital funded from debt in line with the Board target. LIPA is currently forecasting to return to the targeted level by 2024. LIPA will continue to monitor its debt financing as a share of capital expenditures and adjust its financial policy, if warranted.

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Projected Borrowing Requirements and Bank Facilities
(Thousands of Dollars)

Description		2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year
Total Capital Expenditures	(a)	**$ 746,317**	**$ 802,022**	**$ 803,597**	**$ 765,693**	**$ (36,329)**	**$ 707,770**	**$ (57,924)**
FEMA Contribution		(104,727)	(52,798)	(43,940)	(21,973)	30,825	-	21,973
Net Capital Expenditures		**641,591**	**749,224**	**759,658**	**743,720**	**(5,504)**	**707,770**	**(35,951)**
Net Coverage Funding of Capital Expenditures		(239,867)	(205,928)	(186,569)	(192,330)	13,597	(229,544)	(37,214)
Projected Borrowing Requirements		**401,724**	**543,296**	**573,089**	**551,390**	**8,094**	**478,226**	**(73,164)**
Projected Cost of Issuance on Borrowing Requirements		**2,009**	**4,346**	**4,585**	**4,411**	**65**	**3,826**	**(585)**
Projected Borrowing Requirements with Cost of Issuance	(b)	**403,732**	**547,643**	**577,674**	**555,801**	**8,159**	**482,051**	**(73,750)**
Series 2016A - Floating Rate Notes		-	-	-	175,000	175,000	-	(175,000)
Series 2015A&B - Floating Rate Notes		-	200,000	200,000	-	(200,000)	-	-
General Revenue Notes, Series 2015	(c)	-	100,000	1,000,000	-	(100,000)	200,000	200,000
Revolving Credit Agreement		200,000	-	-	-	-	200,000	200,000
Bonds Subject to Mandatory Refinancing & Bank Facilities		**$ 200,000**	**$ 300,000**	**$ 1,200,000**	**$ 175,000**	**$ (125,000)**	**$ 400,000**	**$ 225,000**

Note: (a) This reflects a Budget Amendment to carry over specific projects in the amount of $28.3 million from 2020 to 2021.
(b) The Projected Borrowing amount is a calculated value. Actual borrowing level may differ due to premium and other considerations.
(c) In 2020 LIPA's actual refinancing of existing credit facilities exceeded the original plan because of favorable market conditions.

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

Capital Structure

LIPA expects to fund its capital investments utilizing a combination of grants, short and long-term debt financing and pay-as-you-go funding from revenue through 2022.

After funding $3.0 billion in infrastructure investments from 2019 through 2022, total projected debt outstanding for LIPA and UDSA will rise approximately $799 million.

Lease Obligations will increase by $534 million, from $1.6 billion in 2019 to $2.1 billion in 2022. Lease Obligations reflect the net present value of lease contracts that are considered financing arrangements under the Governmental Accounting Standards Board (GASB). The Lease Obligation in 2020 has been revised to reflect a GASB Statement No. 87 - Leases, which revised the definition of a lease obligation. As a result, lease contracts that had previously not been capitalized were reclassified as Long-term Lease Obligations in 2020. For example, under the prior GASB rule, the contract with National Grid for the operation of on-island power generation did not meet the lease capitalization criteria. Absent this change in accounting rules, Lease Obligations would have declined from $1.6 billion in 2019 to $1.1 billion in 2022.

Combined debt and lease balances will increase by $1.3 billion, from $9.9 billion at the end of 2019 to $11.3 billion at the end of 2022. This is primarily due to GASB Statement No. 87, as described above.

LIPA's Debt to Capital Ratio remains essentially flat at 89.6% in 2019 to 90.3% in 2022. The Debt to Asset Ratio declines from 98.0% in 2019 to 92.5% in 2022. Both ratios are expected to continue to decline over time.

Long Island Power Authority
2021 Proposed and 2022 Projected Budgets

Capital Structure
(Thousands of Dollars)

Description		2019 Actual	2020 Approved	2020 Projected	2021 Proposed	2021 Change from Prior Year	2022 Projected	2022 Change from Prior Year	
UDSA Current Debt									
UDSA Long Term Debt Outstanding		$ 4,008,832	$ 3,882,775	$ 3,882,775	$ 3,703,356	$ (179,419)	$ 3,525,845	$ (177,511)	
LIPA Current Debt									
LIPA Long Term Debt Outstanding		3,543,871	3,979,143	3,965,224	4,628,280	649,138	4,965,602	337,322	
LIPA Short Term Debt Outstanding	(a)	292,000	305,900	305,000	174,093	(131,807)	174,093	-	
Total LIPA Debt Outstanding		**3,835,871**	**4,285,043**	**4,270,224**	**4,802,373**	**517,330**	**5,139,695**	**337,322**	
LIPA Long Term Debt To Be Issued	(b)	502,425	546,013	575,955	554,147	8,134	480,617	(73,530)	
Projected UDSA Debt		4,008,832	3,882,775	3,882,775	3,703,356	(179,419)	3,525,845	(177,511)	
Projected LIPA Debt		4,338,296	4,831,055	4,846,178	5,356,520	525,465	5,620,312	263,791	
Total Projected Debt		**8,347,128**	**8,713,830**	**8,728,953**	**9,059,876**	**346,046**	**9,146,157**	**86,280**	
Lease Obligations	(c)	1,581,061	2,815,001	2,791,111	2,457,256	(357,744)	2,115,865	(341,391)	
Total Debt and Lease Obligations		**9,928,189**	**11,528,831**	**11,520,064**	**11,517,132**	**(11,699)**	**11,262,022**	**(255,111)**	A
Excess of Revenues Over Expenses		**24,019**	**3,531**	**(8,215)**	**29,033**	**25,502**	**78,784**	**49,750**	
Net Position Before Deferred Grants		518,868	499,417	510,653	539,686	40,269	618,470	78,784	
Deferred Grants	(d)	631,498	634,999	619,318	602,546	(32,452)	584,987	(17,560)	
Net Position		**$ 1,150,366**	**$ 1,134,416**	**$ 1,129,971**	**$ 1,142,232**	**$ 7,816**	**$ 1,203,456**	**$ 61,224**	B
Debt to Capital Ratio	(e)	**89.6%**	**91.0%**	**91.1%**	**91.0%**	**0.0%**	**90.3%**	**-0.7%**	C=A/(A+B)
Debt to Asset Ratio	(e)	**98.0%**	**97.2%**	**98.0%**	**94.9%**	**-2.3%**	**92.5%**	**-2.4%**	

Note: (a) LIPA may need to use additional short-term debt in 2020 in anticipation of FEMA reimbursement for storm costs and storm hardening projects.
(b) Long-term debt to be issued reflects projected borrowing requirements to fund Capital Expenditures excluding carry over proceeds from the prior year and bond premium.
(c) The 2020 Long-term Lease Obligation amounts and the associated Coverage calculation reflect GASB No. 87 (Leases) implementation in January 2020. GASB 87 revised the definition of a lease obligation. As a result, lease contracts that had previously not been capitalized will be reclassified as Long-term Lease Obligations starting 2020.
(d) Deferred Grants are funds received from FEMA for a $730.0 million storm hardening program. LIPA has deferred recognition of the grant income to align the grant receipts with the associated depreciation expense of the assets funded through the grant.
(e) Debt to Capital Ratio is calculated by taking (i) debt and capitalized leases and dividing by (ii) debt, capitalized leases, and Net Position. Debt to Asset Ratio is calculated by taking (i) total debt and capitalized leases and dividing by (ii) fixed assets and working capital.

LIPA Long Island Power Authority

2021 Proposed and 2022 Projected Capital and Deferred Expenditures
(Thousands of Dollars)

Transmission & Distribution	Location	Investment Description	In Service Date	Total Project Cost	Project To Date Expenditures through 12/31/20 (a)	Proposed 2021	Projected 2022
Regulatory Driven Projects							
	East Garden City	Install new circuit to Valley Stream (N-1-1)	Dec-20	106,300	100,312	6,000	-
Total Regulatory Driven Projects				**$ 106,300**	**$ 100,312**	**$ 6,000**	**$ -**
Load Growth Projects							
	Mitchel Garden	Reconductor 13kV distribution feeder	Dec-20	1,186	585	601	-
	Far Rockaway	Upgrade 14 MVA transformers to 33 MVA transformers	Jun-21	9,335	5,559	3,776	-
	Round Swamp	Construct new 69/13kV substation	Jun-21	30,176	4,645	13,728	11,803
	Roslyn	Install new 138/13 kV transformer and switchgear	Jun-21	21,876	15,644	6,232	-
	Wildwood	Upgrade 69 kV circuit to Riverhead to 138 kV	Jun-21	9,579	4,349	5,230	-
	Riverhead	Install new 138 kV circuit to Canal	Jun-21	82,550	51,061	22,918	-
	South Fork	Upgrade transmission lines from 23 kV to 33 kV	Jun-21	1,135	136	379	620
	Ronkonkoma	Install new 138/69 kV transformer and switchgear	Jun-21	19,746	7,451	9,643	-
	Stewart Manor	Upgrade distribution feeder and install step down bank	Jun-21	2,393	89	2,304	-
	Far Rockaway	Install series reactor for 33kV circuit at Far Rockaway Substation	Jun-21	2,883	779	2,103	-
	Bridgehampton	Replace the control and battery enclosure	Jun-21	3,229	248	1,742	1,239
	Rockaway Beach	Convert substation from 4kV to 13kV	Dec-21	11,303	4,220	4,967	2,115
	Far Rockaway	Install two new distribution circuits	Dec-21	7,403	1,555	4,556 *	1,292
	Amagansett	Upgrade substation from 23 kV to 33 kV	Jun-22	15,659	9,122	3,466 *	948
	Ocean Beach	Install new 4kV circuit	Jun-22	6,838	380	3,572	2,886
	Arverne	Install new 33kV circuit to Far Rockaway substation	Jun-22	30,648	665	12,329	17,655
	New South Road	Expand 69/13kV substation & distribution circuits	Jun-22	21,232	5,161	3,423 *	6,049
	Ruland Road	Install new 69 kV circuit to Plainview	Jun-22	52,850	16,549	21,982	14,318
	Brightwaters	Install new transformer and switchgear	Jun-22	20,418	355	5,459	14,603
	Rockaway Beach	Install new transformer and switchgear	Jun-22	11,272	1,254	4,481	5,536
	Southampton	Install new 13kV distribution circuit	Jun-22	5,545	323	2,628	2,593
	Brightwaters	Install new 13kV distribution circuit and switch (ATO)	Jun-22	2,350	143	1,163	1,044
	Garden City	Upgrade distribution feeder from 4kV to 13kV	Jun-22	3,510	116	802	2,592
	Rockaway Beach	Install new 33 kV circuit to Arverne	Jun-22	24,658	95	7,741	16,822
	Bridgehampton	Install new 3rd bank and switchgear	Jun-22	11,069	-	2,990	3,509
	Culloden Point	Upgrade substation from 23 kV to 33 kV	Dec-22	6,229	2,281	1,034	853
	Buell	Upgrade substation from 23 kV to 33 kV	May-23	12,191	242	3,228 *	5,052
	Bridgehampton	Install 2 new feeders and conversion and reinforcement	Jun-23	12,923	-	343	2,441
	Pilgrim	69kV bus reconfiguration	Jun-23	1,310	-	-	50
	Massapequa	Construct new 69/13kV substation	Jun-23	32,641	2,947	5,133	10,890
	Berry Street	Reconductor 69kV circuit to South Farmingdale Substation	Jun-23	13,280	256	201	7,671
	Peconic	Upgrade existing distribution transformers from 14MVA to 33MVA	Jun-23	7,022	-	-	2,392
	Broadway	Upgrade distribution feeder from 4kV to 13kV	Jun-23	2,953	-	-	120
	North Bellmore	Install 33 MVA bank, switchgear, and feeders	Jun-23	21,902	-	100	5,471
	Navy Road	Construct new 23/13 kV substation (Montauk substation replacement)	Oct-23	31,746	22,142	4,962	601
	Hero	Upgrade substation from 23 kV to 33 kV	Dec-23	685	117	61	31
	East Hampton	Upgrade substation from 23 kV to 33 kV	May-24	5,695	384	1,456 *	1,167
	Hither Hills	Upgrade substation from 23 kV to 33 kV	May-24	12,973	170	308	2,603
	Bridgehampton	Install new 69kv circuit to Buell	Jun-24	45,520	3,114	968 *	878
	Deerfield	Reconfiguration of 69kV double circuit to Canal	Jun-25	1,625	-	280	133
	Yaphank	Install 33 MVA bank, switchgear, feeders & C&R	Jun-25	12,000	-	-	250
	North Patchogue	Land acquisition for new substation	Jun-26	2,400	-	-	2,400
	New Cassel	Land acquisition for new substation	Jun-26	16,690	-	-	2,100
	Southampton	Install new 138kV cable to Deerfield	Jun-27	115,804	-	750	1,680
	Doctors Path	Land acquisition for new substation	Jun-29	1,500	-	-	1,500
	Various	Distribution facilities to serve new business		-	35,328	35,308	37,074
	Various	Residential underground development to serve new business		-	10,000	12,000	12,000
Total Load Growth Projects				**$ 765,931**	**$ 207,467**	**$ 214,349**	**$ 202,982**

*Includes carry over from 2020. See Carry Over table for details
(a) Project to date expenditures includes projects that began prior to 2020

2021 Proposed and 2022 Projected Capital and Deferred Expenditures
(Thousands of Dollars)

Transmission & Distribution	Location	Investment Description	In Service Date	Total Project Cost	Project To Date Expenditures through 12/31/20 (a)	Proposed 2021	Projected 2022
Reliability Projects							
	Fire Island	New circuit	Jun-21	8,844	1,313	7,531	-
	Hicksville	Purchase two mobile units	Jun-21	3,598	2,511	1,087	-
	Northport	Procure phase angle regulator	Jun-21	11,083	2,142	8,941	-
	Greenlawn	Reconductor 69kV circuit to Elwood	Dec-22	6,779	95	474	6,209
	Northport	Replace radiators for banks 1 to 4	Dec-22	5,625	2,074	1,656	1,896
	East Garden City	Switchgear replacement	Dec-22	28,590	103	7,491	7,320
	Various	Telecom alarm monitoring system	Dec-22	310	-	225 *	85
	Fire Island Pines	Install new 23 kV circuit to Ocean Beach	Jun-24	46,142	1,862	436	12,058
	Various	Upgrade corrosion protection system for pipe type cable		-	2,008	2,000	2,000
	Various	Transformer load tap changer replacements		-	410	410	410
	Various	Distribution circuit improvement program (CIP)		-	12,407	16,000	16,000
	Various	Transformer monitoring		-	-	950	950
	Various	Substation battery replacements		-	482	482	482
	Various	Substation control power transformer replacements		-	224	262	262
	Various	Pipe type cable low pressure trip		-	913	683	1,366
	Various	Pipe type cable terminal pressure monitoring upgrade program		-	1,364	724	905
	Various	Transmission cables cathodic replacements		-	374	374	374
	Various	Transmission pipe type cable pump house upgrade/replacement		-	680	860	860
	Various	Transmission protection and controls upgrades		-	1,100	3,490	3,200
	Various	Substation lightning & grounding upgrades		-	290	790	790
	Various	Remote terminal unit replacement/upgrades		-	2,586	2,707	2,700
	Various	Mechanical relay replacements		-	188	225	800
	Various	Transmission breaker replacements		-	2,330	2,500	2,500
	Various	Protection lease line upgrade		-	1,421	1,600	800
	Various	Replace (13) trailer mounted capacitor banks with fixed banks		-	-	2,100	3,300
	Various	Distribution pole mounted switches and RTU replacements		-	-	500	500
	Various	Upgrade supervisory controllers for Capacitor Banks		-	1,762	2,262	3,430
	Various	Distribution switchgear replacements		-	-	-	7,500
	Various	Distribution breaker replacements		-	748	748	748
	Various	Cap and pin insulator replacements		-	500	425	425
	Various	Transformer major component replacements		-	720	1,750	1,750
	Various	Substation rack replacements		-	-	-	200
	Various	Substation transformers replacements		-	-	200	4,500
	Various	Distribution transformers - add/replace		-	15,776	17,761	18,649
	Various	Substation equipment failures		-	7,425	7,000	7,000
	Various	System spares		-	6,166	5,800	5,800
	Various	Public works		-	16,192	9,293	9,293
	Various	Transmission pole replacements		-	980	709	745
	Various	Distribution pole reinforcement		-	2,981	5,000	5,000
	Various	Distribution system improvements - services, branch lines & customer requests		-	26,828	28,500	30,975
	Various	Accidents		-	9,418	10,229	12,332
	Various	Distribution pole replacements		-	14,752	15,031	15,782
	Various	Distribution multiple customer outages (MCO)		-	8,171	7,272	7,490
	Various	Transmission system failures		-	1,035	606	636
	Various	Underground distribution cable upgrades		-	10,370	12,200	12,200
	Various	Residential underground cables		-	2,600	6,400	6,400
	Various	Telecom distribution automation repeater upgrades		-	272	425	450
	Various	Two Way Radio new fleet equipment		-	103	104	104
	Various	Two Way Radio communications equipment infrastructure		-	-	-	200
Total Reliability Projects				**$ 110,971**	**$ 163,676**	**$ 196,212**	**$ 217,376**

*Includes carry over from 2020. See Carry Over table for details
(a) Project to date expenditures includes projects that began prior to 2020

LIPA Long Island Power Authority

2021 Proposed and 2022 Projected Capital and Deferred Expenditures
(Thousands of Dollars)

Transmission & Distribution	Location	Investment Description	In Service Date	Total Project Cost	Project To Date Expenditures through 12/31/20 (a)	Proposed 2021	Projected 2022
Storm Hardening Projects							
	Various	Storm hardening distribution circuits		-	61,544	70,000	50,000
Total Storm Hardening Projects				**$ -**	**$ 61,544**	**$ 70,000**	**$ 50,000**
Tools, Equipment, Other, Economic, Salvage							
	Various	Two way radio system upgrade	Dec-20	42,913	40,917	1,995 *	-
	Far Rockaway Peninsula	Relocate Aerial Cable at Beach 105th Street MTA Station Rebuild	Dec-20	3,953	1,460	2,493	-
	Edwards Avenue	Interconnection costs associated with Long Island Solar Farm	Dec-21	5,069	-	-	5,069
	East Hampton	Underground transmission in Village	Jun-21	5,118	1,062	500	3,139
	Edwards Avenue	Interconnection costs associated with sPower Riverhead Solar Farm 2	Dec-22	270	-	-	270
	Port Jefferson	Interconnection costs to reconductor 69kV Circuit to Stonybrook Substation	Jun-23	31,455	646	1,491	6,760
	Hicksville	Transmission operations control room facility replacement	Dec-23	78,025	-	700 *	30,125
	Newbridge to Bellmore	Interconnection costs associated with system deliverability upgrades associated with Offshore Wind (b)	Dec-25	9,000	-	-	900
	Various	Interconnection costs and system deliverability upgrades associated with Offshore Wind	Dec-26	-	-	2,000	16,000
	Various	LIRR program upgrade		-	1,000	1,527	1,200
	Various	Substation distribution circuit relay upgrade		-	780	362	500
	Various	Substation security upgrade		-	1,775	4,975	14,925
	Various	Transfer distribution facilities to new telephone poles		-	17,076	10,124	10,630
	Various	Capital tools		-	912	2,200	3,200
	Various	Salvage		-	(876)	(500)	(500)
Total Tools, Equipment, Other, Economic, Salvage				**$ 175,803**	**$ 64,753**	**$ 27,867**	**$ 92,218**
Grand Total Transmission & Distribution				**$ 1,159,005**	**$ 597,752**	**$ 514,429**	**$ 562,576**

*Includes carry over from 2020. See Carry Over table for details
(a) Project to date expenditures includes projects that began prior to 2020
(b) Additional costs may be required as details of the offshore wind project development are finalized.

LIPA Long Island Power Authority

2021 Proposed and 2022 Projected Capital and Deferred Expenditures
(Thousands of Dollars)

Information Technology	Investment Description	In Service Date	Total Project Cost	Project To Date Expenditures through 12/31/20 (a)	Proposed 2021	Projected 2022
Transmission & Distribution						
	Outage and Incident Communications	2021	950	776	174	-
	Control room recorder upgrade	2021	5,750	-	1,600 *	3,000
	GIS upgrade	2021	6,256	-	6,515 *	-
	Mobile timesheets	2021	5,300	-	5,600 *	-
	New Business Portal	2021	1,595	200	750	-
	GIS field smart designer	2022	7,000	-	-	3,000
	LI Two Way Radio N-1 coverage	2022	3,500	-	-	1,500
	ADMS -Network Model and FLISR	2023	16,700	-	4,000 *	5,500
	Asset health system enhacements (IBM Platform)	2025	1,800	-	500	500
	Work management continuous improvement	Program	-		1,987 *	-
	CAD - Mobile Operational Enhacements	Program	-	-	1,000	500
	CG Concentrator Replacement	Program	-	-	-	850
	Geospatial Operational Enhacements	Program	-	-	-	1,500
	OMS - Mobile Operational Enhacements	Program	-	-	1,000	500
	Refresh the CNI PI system	Program	-	-	400	-
	Substation remote monitoring and data collection	Program	-	-	263	500
	T&D mobile applications	Program	-	-	1,250 *	-
	Robotics	Program	-	-	250 *	-
Total Transmission & Distribution			**$ 48,851**	**$ 976**	**$ 25,289**	**$ 17,350**
Customer Service						
	Community Choice Aggregation (CCA)	2021	1,800	-	1,800	-
	CRM modernization - Salesforce product backlog	Program	-	-	2,500	2,000
	Call Center as a Solution (CaaS) product backlog	Program	-	-	6,470 *	1,000
	Robotic Process Automation product backlog	Program	-	-	250	750
	CAS product backlog	Program	-	-	500 *	1,000
	AMI system product backlog	Program	-	-	800	2,000
	Rate change product backlog	Program	-	-	600 *	1,000
	Payment processing backlog	Program	-	-	-	2,000
	Suffolk County Sewage	Program	-	-	400	-
	Bill Print & Bill Image Migration - new vendor (security & finance stability drv)	Program	-	-	500	-
	IT - ACH (Electronic Payment System Add On) Replacement (PEP+)	Program	-	-	400	-
	Mobile app product backlog	Program	-	-	250	500
	Voice Assistant product backlog	Program	-	-	300 *	500
	myAccount product backlog	Program	-	-	798 *	1,498
	Kubra enhancement product backlog	Program	-	-	300	600
	TCPA Preference Management Tool	Program	-	-	500	-
Total Customer Service			**$ 1,800**	**$ -**	**$ 16,368**	**$ 12,848**
Information Technology						
	Network access control security	2021	1,261	794	441	-
	AWS Storage	2021	800	-	200	-
	Core Switch/Firewall Life Cycle Replacement GC & HN	2021	140	-	140	-
	Cyber Security Compliance Tools (CAPE)	2021	250	-	250	-
	Herndon AWS Migration	2021	1,000	-	1,000	-
	InfoBlox DNS Upgrade	2021	300	-	300	-
	Mainframe CICS Upgrade	2021	300	-	300	-
	Windows 2016 Operating System Upgrade	2021	294	-	294	-
	Network F5 load balancers life cycle program	2021	300	-	300 *	-
	Customer usage patterns analytics	Program	-	-	500	500
	Cybersecurity continous improvement	Program	-	-	765 *	1,000
	Energy Efficiency program analytics	Program	-	-	500	500
	Grid optimization analytics	Program	-	-	2,000 *	1,000
	Mulesoft platform continuous improvement	Program	-	-	1,000	500
	Network (LAN/WAN) infrastructure life cycle program updates	Program	-	-	-	900
Total Information Technology			**$ 4,645**	**$ 794**	**$ 7,990**	**$ 4,400**
Grand Total Information Technology Projects			**$ 55,296**	**$ 1,770**	**$ 49,647**	**$ 34,598**

*Includes carry over from 2020. See Carry Over table for details
(a) Project to date expenditures includes projects that began prior to 2020

2020 Approved and 2021 Projected Capital Expenditures
(Thousands of Dollars)

Utility 2.0	Investment Description	Total Project Cost	Project To Date Expenditures through 12/31/20 (a)	Proposed 2021	Projected 2022
2018 Utility 2.0 Filing					
Empowering Customers					
	Core AMI: Operational	194,075	104,980	48,735	40,361
	Core AMI: PMO + Change Management	7,636	3,636	2,000	2,000
	AMI-Enabled Capabilities	14,175	7,439	3,362	3,373
	Enabled AMI: Rate Modernization	10,034	5,235	4,420	187
	Enabled AMI: Analytics	5,329	3,629	1,000	700
	Accelerated Meters to 2020	-	10,000	-	(10,000)
	Accelerated Meters to 2021	-	-	16,840	(16,840)
	Total Empowering Customers	**$ 231,248**	**$ 134,919**	**$ 76,357**	**$ 19,780**
Evolving to the DSP					
	IOAP Phase I (SGIP Interconnection)	1,759	1,759	-	-
	Utility of the Future / CVR / JU	1,042	562	240	240
	Locational Value Study	488	488	-	-
	Grid Storage	9,220	409	3,405	5,407
	Total Evolving to the DSP	**$ 12,508**	**$ 3,217**	**$ 3,645**	**$ 5,647**
Total 2018 Utility 2.0 Filing Projects		**$ 243,757**	**$ 138,136**	**$ 80,001**	**$ 25,427**
2019 Utility 2.0 Filing					
New Initatives					
	Next Gen Insights Pilot	587	587	-	-
	Energy Concierge Pilot	1,150	-	1,150	-
	Electric School Bus V2G Pilot	84	-	84	-
	Hosting Capacity Maps Ph 1 & 2	1,472	800	672 *	-
	Total New Initiatives	**$ 3,293**	**$ 1,387**	**$ 1,906**	**$ -**
Total 2019 Utility 2.0 Filing Projects		**$ 3,293**	**$ 1,387**	**$ 1,906**	**$ -**
2020 Utility 2.0 Filing					
New Initatives					
	On-Bill Financing	1,115	-	1,068	48
	C&I Demand Alert Pilot	1,776	-	1,773	3
	Enhanced Marketplace	4,646	-	2,984	1,648
	EV Make-Ready Program	3,196	-	3,196	-
	CVR Program	936	-	936	-
	DER Visibility	3,947	-	3,947	-
	Hosting Capacity Maps Stage 3	1,700	-	1,700	-
	Total New Initiatives	**$ 17,316**	**$ -**	**$ 15,603**	**$ 1,699**
Total 2020 Utility 2.0 Filing Projects		**$ 17,316**	**$ -**	**$ 15,603**	**$ 1,699**
New Program Funding		-	-	-	**$ 5,000**
Total Utility 2.0 Projects		**$ 264,366**	**$ 139,523**	**$ 97,511**	**$ 32,126**

*Includes carry over from 2020. See Carry Over table for details
(a) Project to date expenditures includes projects that began prior to 2020

2021 Proposed and 2022 Projected Capital and Deferred Expenditures
(Thousands of Dollars)

Business Units	Investment Description	In Service Date	Total Project Cost	Project To Date Expenditures through 12/31/20 (a)	Proposed 2021	Projected 2022
Customer Service						
	Purchase Electric Meters	Blanket	-	-	7,027	7,105
	Install/Remove Meters	Blanket	-	-	3,933	4,085
	Tools/Equipment	Program	-	-	500	500
	Dusk to Dawn		18,100	-	5,822	3,064
Total Customer Service Projects			**$ 18,100**	**$ -**	**$ 17,282**	**$ 14,754**
Facilities						
	Facilities Services	Program	-	-	8,972 *	3,072
	Riverhead Vehicle Canopy		5,000	4,065	1,000 *	
	Shoreham Facility Upgrades				1,545	
Total Facilities Projects			**$ 5,000**	**$ 4,065**	**$ 11,517**	**$ 3,072**
Fleet						
	Fleet	Program	-	-	9,719	7,222
Total Fleet Projects			**$ -**	**$ -**	**$ 9,719**	**$ 7,222**
Total PSEG LI Projects with Carryover and Amendments					**$ 700,105**	**$ 654,348**
FEMA Storm Hardening					**$ 24,414**	**$ -**
Storm Capitalization					**$ 4,468**	**$ 4,468**
Grand Total PSEG Long Island and FEMA Related					**$ 728,987**	**$ 658,816**

*Includes carry over from 2020. See Carry Over table for details
(a) Project to date expenditures includes projects that began prior to 2020

LIPA Long Island Power Authority

2020 Carry Over Costs into 2021
(Thousands of Dollars)

Business Units	Location	Investment Description	2021 Carry Over Amounts
Transmission & Distribution			
Load Growth Projects			
	Amagansett	Upgrade substation from 23 kV to 33 kV	1,500
	Buell	Upgrade substation from 23 kV to 33 kV	1,593
	East Hampton	Upgrade substation from 23 kV to 33 kV	1,305
	New South Road	Expand 69/13kV substation & distribution circuits	1,163
	Far Rockaway	Install two new distribution circuits	2,950
	Bridgehampton	Install new 69kV circuit to Buell	100
	Total Load Growth Projects		**$ 8,611**
Reliability Projects			
	Various	Telecom alarm monitoring system	225
	Total Reliability Projects		**$ 225**
Other Projects			
	Hicksville	Transmission operations control room facility replacement	500
	Various	Two way radio system upgrade	2,014
	Total Other Projects		**$ 2,514**
Total Transmission & Distribution			**$ 11,350**
Information Technology			
IT-Transmission & Distribution			
		Mobile timesheets	1700
		GIS upgrade	2252
		Work Management Continuos Improvement	1987
		ADMS continous improvement (OMS-DMS)	1000
		T&D mobile app continuous improvement	500
		Control room recorder upgrade	600
		Robotics	250
	Total IT-Transmission & Distribution		**$ 8,289**
IT-Customer Service			
		Call Center as a Solution (CaaS) product backlog	3,470
		myAccount product backlog	300
		CAS product backlog	100
		Rate change product backlog	100
		Voice Assistant product backlog	50
	Total IT-Customer Service		**$ 4,020**
IT-Information Technology			
		AWS Storage	200
		Grid optimization analytics	500
		Network F5 load balancers life cycle program	300
		Cybersecurity continous improvement	265
	Total IT-Information Technology		**$ 1,265**
Total Information Technology			**$ 13,574**

2020 Carry Over Costs into 2021
(Thousands of Dollars)

Business Units	Location	Investment Description	2021 Carry Over Amounts
Business Services			
Facilities			
	Hicksville	Ops 2 redeveleopment and EOB 2nd fl phase I	857
	Melville	Restroom refurbishment	320
	Riverhead	Customer Office Redevelopment	387
	Roslyn	Customer Office Refurbishment	71
	Uniondale	Office Refurbishment	110
	Riverhead Vehicle Canopy	Vehicle Canopy	1,000
Total Business Services			**$ 2,744**
Subtotal before Utility 2.0			**$ 27,668**
Utility 2.0			
Evolving to a Customer-Centric DSP			
		Hosting Capacity Maps Ph 1 & 2	672
	Total Evolving to a Customer-Centric DSP		**$ 672**
Total Utility 2.0			**$ 672**
Total Project Carry Over			**$ 28,340**

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

LIPA's Relationship with New York State Government

LIPA is a component unit of New York State. LIPA became the retail supplier of electric service in the Counties of Nassau and Suffolk (with certain limited exceptions) and a portion of Queens County known as the Rockaways (Service Area), on May 28, 1998 by acquiring the transmission and distribution system of the Long Island Lighting Company as a wholly owned subsidiary of the Authority. LIPA provides electric delivery service in the Service Area, which includes approximately 1.1 million customers. The population of the Service Area is approximately 2.9 million. In order to assist LIPA in providing electric service to its customers, LIPA entered into operating agreements to provide operating personnel and a significant portion of the power supply resources necessary to provide electric service.

Under LIPA's business model, essentially all costs of operating and maintaining the Authority's T&D system incurred by PSEG Long Island, the LIPA's Service Provider, are passed through to and paid for by LIPA.

Long Island Power Authority
2021 Proposed and 2022 Projected Operating and Capital Budgets

Budget Process

Under the terms of the LIPA Reform Act and the Amended and Restated Operations Services Agreement, the LIPA Consolidated Budget and Financial Plan are jointly developed by LIPA and its Service Provider, PSEG Long Island.

The LIPA Consolidated Budget outlines projected spending by major expense and revenue category. The budget reflects the operating and capital costs required to provide electric service in the Service Area.

Budget Development Schedule:

- April through October: LIPA and PSEG Long Island develop projections of current year spending and preliminary budget forecasts for the upcoming year and financial plan.
- June through October: PSEG Long Island provides LIPA with preliminary Capital project projections.
- October:
    - PSEG Long Island provides LIPA with a preliminary budget. This includes projections for current year spending as well as a preliminary budget for the years covered by the financial plan. The preliminary budget submission is reviewed by LIPA.
    - LIPA provides PSEG Long Island its portion of the Consolidated Budget by mid-October.
    - PSEG Long Island produces a LIPA Consolidated Budget by the end of October.
    - The LIPA Consolidated Budget is reviewed by senior level staff from both LIPA and PSEG Long Island.
- November:
    - Public Hearings are held in November to solicit comments from the public.
    - The Board of Trustees is briefed on the budget during regular board meeting.
- December: The Board of Trustees votes on the adoption of the LIPA Consolidated Budget.

www.lipower.org

LIPA
Long Island Power Authority