**COMMONWEALTH OF PUERTO RICO**
**PUBLIC SERVICE REGULATORY BOARD**
**PUERTO RICO ENERGY BUREAU**

| **IN RE:** | **CASE NO.:** NEPR-MI-2020-0019 |
|---|---|
| REVIEW OF THE PUERTO RICO ELECTRIC POWER AUTHORITY'S SYSTEM REMEDIATION PLAN | **SUBJECT:** Submission of Quarterly Report. |

**MOTION TO SUBMIT QUARTERLY REPORT**

**TO THE HONORABLE PUERTO RICO ENERGY BUREAU**:

**COME NOW LUMA Energy, LLC** ("ManagementCo"), and **LUMA Energy ServCo, LLC** ("ServCo"), (jointly referred to as "LUMA"), and respectfully state and request the following:

1. On June 23, 2021, this honorable Energy Bureau issued a Resolution and Order approving the proposed System Remediation Plan submitted by LUMA in the instant proceeding ("June 23rd Order"). In Section IV, paragraphs 1 through 3 of the June 23rd Order, this honorable Energy Bureau required LUMA to, starting on September 15, 2021, conduct bimonthly reporting on the implementation of the SRP including the following information:

i. Actual spending amounts, broken down by spending initiative/portfolio, and reflecting in detail any variances from the System Remediation Plan;

ii. A detail[ed] timeline per portfolio with sufficient detail to allow the Energy Bureau to assess project status for System Remediation Plan capital expenditures and operational initiatives; and

iii. Any capital expenditure or operational initiatives that are behind schedule, compared to the initial System Remediation Plan timeframe and a detail[ed] explanation as to the cause of the delay and the corrective actions implemented to prevent further delays, as applicable.

*Id.*

2. On August 25, 2021, the Energy Bureau issued a Resolution and Order ("August 25th Resolution") modifying the bimonthly reporting requirement to a quarterly basis and establishing a filing due date for these reports of thirty (30) days following the close of the reported quarter." *See* August 25th Resolution and at p. 3.

3. On November 4, 2021, this Energy Bureau issued a Resolution and Order (the "November 4th Resolution") establishing a filing due date for these reports of forty-five (45) days after each quarter closes. *See* November 4th Resolution at p. 2.

4. In compliance with the June 23rd Order, as modified by the August 25th Resolution requiring quarterly reporting and the November 4th Resolution establishing a filing due date for these reports forty-five (45) days after each quarter close, LUMA hereby submits to the Energy Bureau, attached as *Exhibit 1*, a comprehensive Quarterly Report for the second quarter ending December 31, 2021 of fiscal year 2022, containing the information required in Section IV, paragraphs 1 through 3 of the June 23rd Order ("Q2 Report"). The Q2 Report includes introductory slides outlining Q2 activities.

5. This Q2 Report also addresses quarterly reporting requirement set in Case No. NEPR-MI-2021-0004, *In Re: LUMA's Initial Budgets* ("Initial Budgets Proceeding") and Case No. NEPR-MI-2021-0002, *In Re: Review of Puerto Rico Electric Power Authority's 10 Year Infrastructure Plan* ("Federal Funding Proceeding"). Therefore, this report will also be submitted to this Energy Bureau in the dockets of the Initial Budgets Proceeding and the Federal Funding Proceeding.

6. This Q2 Report also meets LUMA's quarterly reporting obligations under the Puerto Rico Transmission and Distribution System Operation and Maintenance Agreement executed among the Puerto Rico Electric Power Authority, LUMA and the Puerto Rico Public Private Partnerships Authority ("P3 Authority") dated as of June 22, 2020 ("T&D OMA") and will be submitted to the P3 Authority for the purposes of compliance with the T&D OMA requirements. *See* T&D OMA, Annex I, Section VI(B) paragraphs (4) and (5).

7. Finally, LUMA hereby submits as *Exhibit 2*, excel schedules (xlsx files) with the tables that are included throughout the text of the Comprehensive Q2 Report.

**WHEREFORE,** LUMA respectfully requests that the Energy Bureau **take notice** of the above on the filing of the Q2 Report, **accept** the attached *Exhibits 1 and 2* in compliance with the quarterly reporting requirements in Section IV, paragraphs 1 through 3 of the June 23rd Order, as modified by the August 25th Resolution and the November 4th Resolution, in the instant proceeding and **deem** LUMA in compliance with such reporting requirements.

**RESPECTFULLY SUBMITTED.**

In San Juan, Puerto Rico, this 14th day of February 2022.

I hereby certify that I filed this motion using the electronic filing system of this Energy Bureau and that I will send an electronic copy of this motion to the attorneys for PREPA, Joannely Marrero-Cruz, jmarrero@diazvaz.law; and Katiuska Bolaños-Lugo, kbolanos@diazvaz.law.

**DLA Piper (Puerto Rico) LLC**
500 Calle de la Tanca, Suite 401
San Juan, PR 00901-1969
Tel. 787-945-9107
Fax 939-697-6147

/s/ Margarita Mercado Echegaray
Margarita Mercado Echegaray
RUA NÚM. 16,266
margarita.mercado@us.dlapiper.com

/s/ Laura T. Rozas
Laura T. Rozas
RUA Núm. 10,398
laura.rozas@us.dlapiper.com

**Exhibit 1**

Q2 Report


# Informe trimestral de LUMA Energy

Segundo trimestre del
Año Fiscal 2022
1 de octubre – 31 de diciembre de 2021

# Estamos aquí para cumplir con la misión para Puerto Rico

A los siete meses de estar operando la red eléctrica de Puerto Rico, en LUMA continuamos nuestro trabajo para reparar sistemas e instalaciones, reducir ineficiencias y fomentar el cambio para beneficiar a 1.5 millones de clientes del servicio eléctrico.

La misión de LUMA es reconstruir y transformar el sistema eléctrico de Puerto Rico después de años de descuido, falta de mantenimiento y deterioro, agravados por una serie de devastadores huracanes y terremotos. Administramos y operamos activos de transmisión y distribución propiedad del gobierno bajo un acuerdo a largo plazo administrado como parte de una alianza público-privada supervisada por la Autoridad de Alianzas Público Privadas (AAPP) y sujeta a la supervisión regulatoria del Negociado de Energía de Puerto Rico.

Este informe resume nuestras actividades clave para el segundo trimestre del Año Fiscal 2022 (del 1 de octubre al 31 de diciembre de 2021). LUMA se centró en aumentar la seguridad, la capacitación técnica, mejorar las comunicaciones con nuestros clientes y partes interesadas y poner en servicio instalaciones, equipos, líneas y subestaciones que han estado fuera de servicio desde antes del acuerdo de T&D comienzo.

## Priorizar la seguridad

Estamos brindando a los trabajadores la capacitación que necesitan para ser efectivos mientras se mantienen seguros. Continuamos viendo mejoras en las métricas claves de seguridad, incluida una mejoría del 80% en la metrica relacionada con la gravedad de las lesiones.

## Reconstrucción y solidez del sistema

Estamos reparando los activos de la red más críticos y avanzando proyectos de capital financiados con fondos federales a través del diseño y la ingeniería.

## Mejorar la satisfacción del cliente

Continuamos creando nuevos caminos para escuchar y responder a los clientes, incluyendo un interacción activa con los 78 Municipios de Puerto Rico y mejoras a la aplicación de MiLUMA en atención a los clientes.

## Excelencia operacional

Crecimos nuestra fuerza laboral a través de un enfoque amplio en la capacitación especializada y desplegamos nuestra fuerza laboral de manera más eficiente con mejoras en los procesos.

## Transformación sostenible

Continuamos apoyando la energía renovable en Puerto Rico activando conexiones de instalaciones solares y liderando iniciativas innovadoras, como los vehículos eléctricos.

# Creado para Invertido en Escuchando a Puerto Rico

## La misión para Puerto Rico

**Recuperar y transformar el servicio públicos para brindar electricidad enfocada en el cliente, confiable, resistente, segura y sostenible a precios razonables.**

OBJETIVOS CLAVES

### PRIORIZAR LA SEGURIDAD
Reformar las actividades del servicio públicos para promover una cultura robusta de seguridad centrada en la seguridad de los empleados y de la gente de Puerto Rico

### MEJORAR LA SATISFACCIÓN DEL CLIENTE
Transformar las operaciones del servicios públicos para brindar una experiencia positiva al cliente y electricidad confiable a precios razonables

### RECONSTRUCCIÓN Y SOLIDEZ DEL SISTEMA
Implementar fondos federales de manera efectiva para rehabilitar la red y reforzar la solidez de las infraestructuras vulnerables

### EXCELENCIA OPERACIONAL
Capacitar a los empleados para que procuren la excelencia operacional a través de nuevos sistemas, procesos y adiestramiento

### TRANSFORMACIÓN DE ENERGÍA SOSTENIBLE
Modernizar la red y el servicio público para facilitar una transformación energética sostenible

# Priorizar la Seguridad

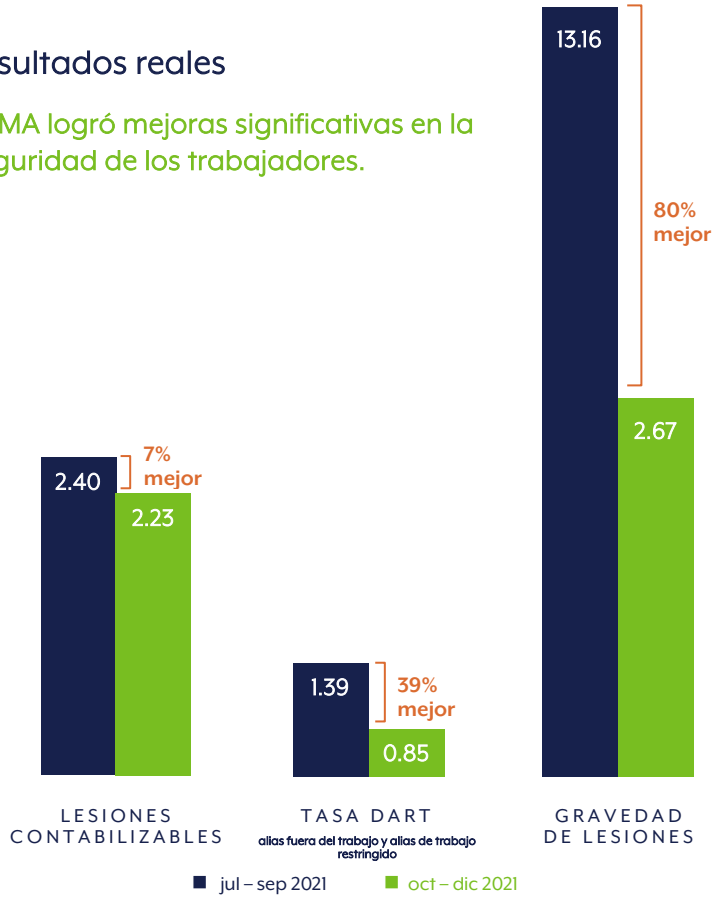
La seguridad y la capacitación son un enfoque principal en toda la organización de LUMA; continuamos aumentando las habilidades de nuestros empleados con capacitación especializada y dedicada dirigida por el “LUMA College for Technical Training” (el Colegio de Formación Técnica de LUMA).

## Lo que hicimos

- LUMA impartió más de 21,000 horas de adiestramiento de seguridad y formación técnica en el segundo trimestre. En promedio, cada día 31 empleados asistieron a cursos en el "LUMA College"
- Proporcionamos cerca de 5,000 horas de adiestramiento para programas de adiestramiento de seguridad a través de más de 50 cursos en el segundo trimestre que se centraron en primeros auxilios/reanimación cardiopulmonar, investigación de incidentes, entrada en espacios confinados y seguridad del sistema eléctrico.
- LUMA le dio la bienvenida a los primeros 21 celadores aprendices graduados en el Centro de Adiestramiento de Palo Seco de LUMA

## Resultados reales

LUMA logró mejoras significativas en la seguridad de los trabajadores.




# Mejorar la satisfacción del cliente

LUMA respondió a más llamadas de clientes y con tiempos de espera para los clientes más cortos. Continuamos enfocándonos en escuchar a nuestros clientes, mejorando la aplicación Mi LUMA, en base al insumo de los clientes y fomentando relaciones colaborativas con nuestra comunidad a través de miles de contactos con los alcaldes.

## Lo que hicimos

- Nos conectamos 3,587 veces con los alcaldes (incluidas 131 reuniones en persona) y mantuvimos diálogos regionales con participación de los equipos de manejo de vegetación, operaciones, alumbrado público, subestaciones y respuesta a emergencias de LUMA.
- Mejoramos el portal web y la aplicación de MiLUMA basado en insumo de los clientes y aumentó el número de suscripciones
- Se les proveyeron a los clientes datos útiles del sistema a través de nuestra página web, incluyendo la proyección de la demanda de la carga del sistema, la capacidad de generación disponible y las reservas totales en el pico para ese día
- Se presentó en nuestra página web un mapa en tiempo real basado en las áreas afectadas por relevos de carga y los tiempos estimados para la restauración del servicio al ocurrir un evento
- Se recibió la aprobación del Negociado de Energía para la nueva factura de LUMA para los clientes que es transparente y fácil de leer

## Resultados reales

- Aumentó la satisfacción general del cliente en 80 puntos, tanto en el servicio al cliente en persona como en la calidad y confiabilidad de la energía (según medido por la puntuación CSAT de J.D. Power)
- Disminución del 76% en la tasa de abandono de llamadas de clientes, de un 17% en el primer trimestre a un 4% en el segundo trimestre
- Menor número de reclamaciones bajo la Ley 57-2014 en la historia de la ley, con una disminución del 28% con respecto al trimestre pasado y menos de la mitad del número recibido durante el mismo período del año pasado
- Respondimos a 11,470 interrupciones de servicio, restaurando el servicio de energía a nuestros clientes
- 609,982 clientes registraron una cuenta electrónica de Mi LUMA y la aplicación Mi LUMA se bajó 451,127 veces, al 31 de diciembre de 2021
- Completamos más de 85,000 órdenes de servicio reduciendo el trabajo atrasado
- Reducción en nuestra velocidad de respuesta promedia de más de 8 minutos, de 9.05 minutos en el primer trimestre, a solo 23 segundos en Q2, la velocidad de promedio de respuesta más rápida desde que comenzaron los informes en junio de 2019

# Reconstrucción y resiliencia del sistema

LUMA continúa haciendo avances significativos en la planificación la ingeniería y la definición del alcance de trabajo fundamentales que son relevantes a la ejecución de proyectos federales y no federales.

## Lo que hicimos

- Se completaron más de 1,000 órdenes de trabajo para el corte de vegetación, incluidas 156 subestaciones, aplicando en la mayoría de estos sitios un tratamiento del suelo al descubierto
- Se obtuvo la aprobación del Negociado de Energía de Puerto Rico (Negociado de Energía o NEPR) para 46 proyectos / programas que representan $830 millones
- Completamos los trabajos de planificación, ingeniería y definición de alcance fundamentales en 37 proyectos y 29 programas que representan aproximadamente mil millones de dólares de trabajo financiado por el gobierno federal

## Resultados reales

- Reemplazo de 861 postes, lo que eleva el total del año hasta la fecha a más de 1,900
- Restablecimiento del servicio a tres alimentadores de transmisión subterránea de 38 kV y 20 alimentadores de distribución subterráneos
- Se realizaron evaluaciones de alto nivel en 191 alimentadores, 116 líneas de transmisión y 103 subestaciones para apoyar la definición del alcance de trabajo del proyecto e identificar áreas de enfoque para las próximas reparaciones

Reconstruir mejor


# Excelencia Operacional

Nuestras actividades se concentraron en capacitar a los empleados para que trabajen de manera segura, se centren en los clientes y creen un cambio positivo, desde la infraestructura física hasta los procesos comerciales y la cultura organizacional.

## Lo que hicimos

- Conectamos 75 clientes comerciales nuevos
- Se pusieron en servicio 16 instalaciones de reparación y mantenimiento de flotas y se recuperaron 178 unidades de flota que antes se creían desaparecidas
- Se comenzaron trabajos en seis de los 37 alimentadores de peor rendimiento y se restableció el servicio en tres alimentadores de transmisión subterránea de 38 kV y 20 alimentadores de distribución subterráneos

## Resultados reales

- Se re-energizó la subestación Cañas, beneficiando a 18,000 clientes, entre otros
- Se restableció el servicio a muchas áreas que habían experimentado interrupciones de servicio continuos y presentaban riesgos de seguridad para el público, como Verde Mar (Distrito de Humacao), el Aeropuerto de Ponce, el Aeropuerto Internacional de San Juan y el Centro Médico en San Juan
- Se completaron y se presentaron 29 procedimientos operacionales ante el Negociado de Energía en apoyo de los Principios de Operación del Sistema, que rigen el despacho económico y confiable de la energía producida por la AEE y los generadores privados
- Se sometieron más de 120 radicaciones regulatorias y de cumplimiento y se representó a LUMA en 11 conferencias, audiencias y talleres frente al Negociado de Energía

# Transformación energética sostenible

En apoyo al esfuerzo global para frenar el impacto del cambio climático y los ambiciosos objetivos de energía renovable de Puerto Rico, LUMA ayudó a acelerar el crecimiento de la energía renovable.

## Lo que hicimos

- LUMA ha activado el servicio de Medición Neta de Energía en el 95% de los proyectos pendientes al 1 de junio de 2021, muchos de los cuales habían sido solicitados durante más de un año
- Presentamos el plan para el estudio eólico marino actualmente en curso con el Laboratorio Nacional de Energía Renovable y participamos en el procedimiento para un mayor despliegue de infraestructura de vehículos eléctricos en Puerto Rico
- Alcanzamos dos logros importantes para Puerto Rico al firmar el primer contrato de LUMA de transmisión por medición neta (un proceso que el solicitante comenzó con la AEE hace tres años) y realizar el primer análisis del sistema enfocado en minimizar los costos de red para la integración de la energía renovable a gran escala para reducir el costo de la energía renovable

## Resultados reales

**MEDICIÓN NETA DE ENERGÍA**

**15,000** clientes activados **70** MW de generación solar distribuida

desde junio de 2021 y, solo en el segundo trimestre, activamos 7.500 clientes y habilitamos 35 MW

**ESTUDIOS DE FASE III**

**844** MW solar **220** MW almacenamiento de la batería

completamos el Tramo 1 de estudios de factibilidad e impacto del sistema que representan 21 proyectos

Creando un future màs sostenible


# LUMA Energy Quarterly Report

Second Quarter
Fiscal Year 2022
October 1 – December 31, 2021

# We're here to deliver on the mission for Puerto Rico

Seven months into operating the Puerto Rico electric grid, LUMA continues our work to repair systems and facilities, unwind inefficiencies and foster change to benefit 1.5 million utility customers.

LUMA's purpose is to rebuild and transform Puerto Rico's electricity system after years of neglect, lack of maintenance and disrepair made worse by a series of devastating hurricanes and earthquakes. We manage and operate government-owned transmission and distribution assets under a long-term agreement administered as part of a public-private partnership overseen by the P3 Authority and subject to regulatory oversight by the Puerto Rico Energy Board.

This report outlines our key activities for the second quarter of Fiscal Year 2022 (October 1 – December 31, 2021). LUMA focused on increasing safety, technical and on-the-job training, improving communications with our customers and stakeholders and putting into service facilities, equipment, lines and substations that have been out of service since before commencement.

## Prioritizing Safety

We're getting workers the training they need to be effective while staying safe. We continue to see improvement in key safety metrics, including a 80% improvement in injury severity.

## System Rebuild & Resiliency

We're repairing the most critical grid assets and advancing federally funded capital projects through design and engineering.

## Improving Customer Satisfaction

We continue to create new paths to listen and respond to customers, including active engagement with Puerto Rico's 78 municipalities and customer-informed improvements to the Mi LUMA application.

## Operational Excellence

We grew our skilled workforce through an expanded focus on specialized training and deployed our workforce more efficiently with process improvements.

## Sustainable Transformation

We continue to advance renewable energy in Puerto Rico by activating solar installation connections and leading groundbreaking initiatives, such as electric vehicles.

# Built for Puerto Rico
# Invested in Puerto Rico
# Listening to Puerto Rico

## The mission for Puerto Rico

**To recover and transform the utility to deliver customer-centric, reliable, resilient, safe and sustainable electricity at reasonable prices.**

KEY GOALS

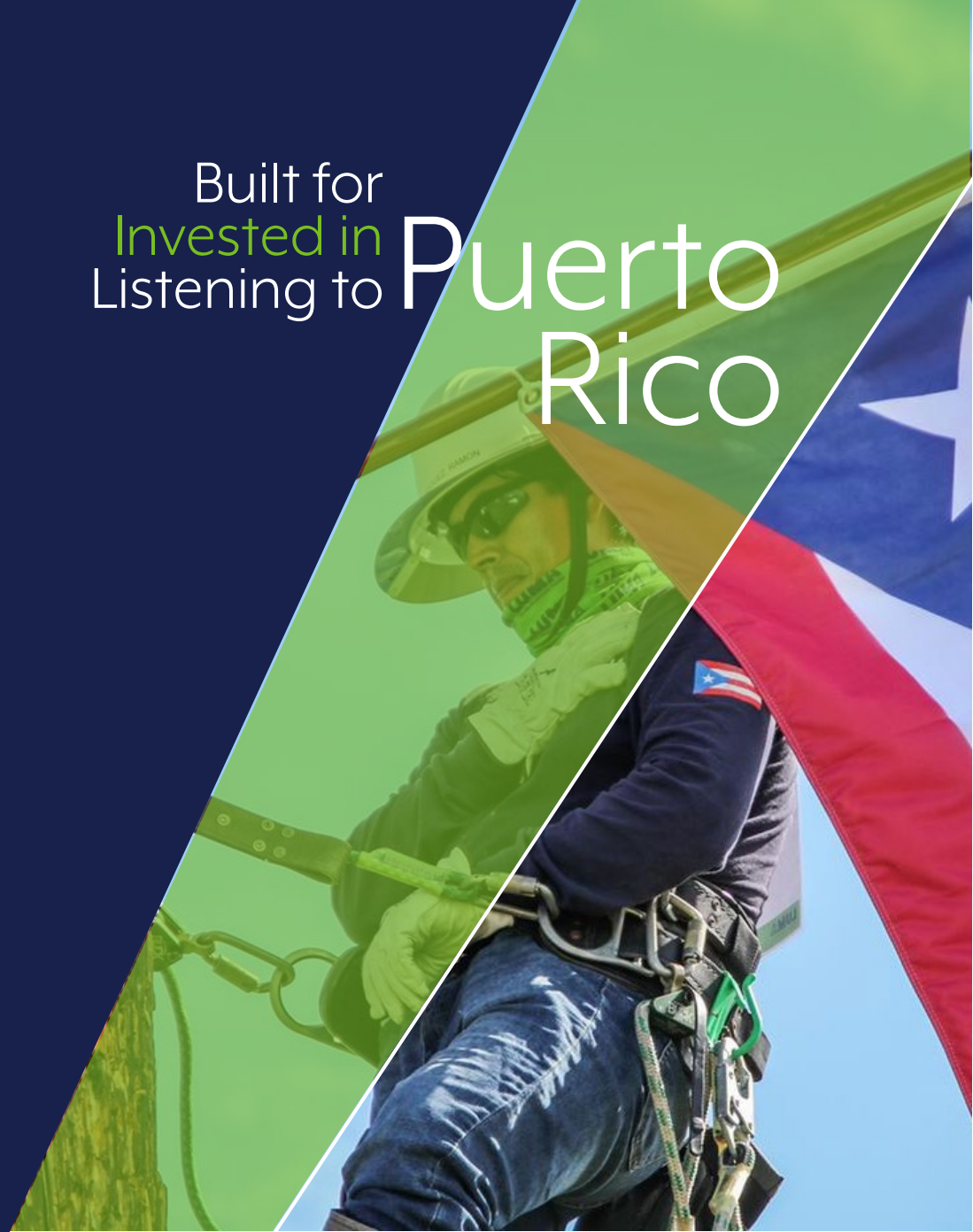
### PRIORITIZE SAFETY
Reform utility activities to support a strong safety culture focused on employee safety and the safety of the people of Puerto Rico

### IMPROVE CUSTOMER SATISFACTION
Transform utility operations to deliver a positive customer experience and reliable electricity at reasonable prices

### SYSTEM REBUILD & RESILIENCY
Effectively deploy federal funding to restore the grid and improve the resilience of vulnerable infrastructure

### OPERATIONAL EXCELLENCE
Enable employees to pursue operational excellence through new systems, processes and training

### SUSTAINABLE ENERGY TRANSFORMATION
Modernize the grid and the utility to enable the sustainable energy transformation.



# Prioritize Safety

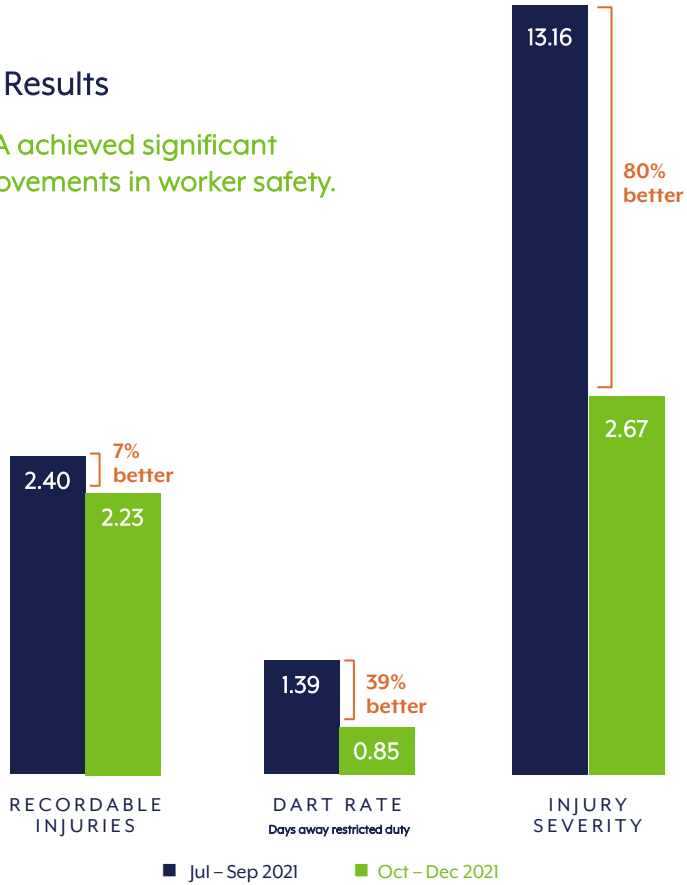
Safety and training are a primary focus across the LUMA organization; we continue to increase our employees' competencies with specialized and dedicated training led by the LUMA College for Technical Training.

## What We Did

- LUMA provided more than 21,000 safety and technical training hours in Q2. On average, each day 31 employees attended courses at LUMA College.
- We provided nearly 5,000 hours of training for safety and technical training programs through over 50 courses in Q2 that focused on first aid/CPR, incident investigation, confined-space entry and electrical system safety.
- LUMA welcomed the first 21 apprenticed lineworker graduates from LUMA's Palo Seco Training Facility.

## Real Results

LUMA achieved significant improvements in worker safety.




# Improve Customer Satisfaction

LUMA answered more customer calls and with shorter customer wait times. We continued to focus on listening to our customers by improving the Mi LUMA application based on customer feedback and fostering collaborative relationships with our community through thousands of connections with mayors.

## What We Did

- Connected with mayors 3,587 times (including 131 in person meetings) and held regional dialogues with LUMA's vegetation management, operations, streetlight, substation and emergency response teams
- Improved the Mi LUMA web portal and app based on customer feedback and increased the number of sign ups
- Provided customers with useful system data through our website, including the forecast for system load (demand), available generation capacity and total reserves at peak for that day
- We also began to provide a real-time web-based map showing areas affected by load shedding and estimated times for service restoration if an event occurs
- Received approval from the Energy Bureau for LUMA's transparent and easy-to-read customer bill

## Real Results

- Increased overall customer satisfaction by 80 points in both in-person customer service and power quality and reliability (as measured by J.D. Power CSAT score)
- 76% decrease in customer call abandonment rate from 17% in Q1 to 4% in Q2
- Fewest Act 57-2014 claims in the history of the law, with a 28% decrease from last quarter and less than half of number received during the same period last year
- Responded to 11,470 outage events, restoring power to our customers
- 609,982 customers registered an electronic Mi LUMA account and the Mi LUMA app was downloaded 451,127 times, as of December 31, 2021
- Completed over 85,000 service orders and reduced the backlog
- Reduced our average speed of answer by more than 8 minutes, from 9.25 minutes in Q1 to just 23 seconds in Q2, the fastest average speed of answer since reporting began in June 2019

# System Rebuild & Resiliency

LUMA continues to make significant advancements in foundational planning, engineering and scoping work relevant to the execution of federal and non-federal projects.

## What We Did

- Completed more than 1,000 work orders for vegetation clearing, including 156 substations with the majority of these sites applying bare ground treatment
- Securing approval from the Puerto Rico Energy Bureau (Energy Bureau or PREB) for 46 projects / programs representing $830 million.
- Completing foundational planning, engineering and scoping work on 37 projects and 29 programs representing approximately $1 billion of federally funded work.

## Real Results

- Replaced 861 poles, bringing the year-to-date total to over 1,900
- Restored service to three 38 kV underground transmission feeders and 20 underground distribution feeders.
- Performed high-level assessments on 191 feeders, 116 transmission lines, and 103 substation sites to support project scoping and identifying focus areas for upcoming repairs and reconstruction

Build back better


# Operational Excellence

Our activities concentrated on training employees to work safely, focus on customers and create positive change — from physical infrastructure to business processes to organizational culture.

## What We Did

- Connected 75 new commercial customers
- Placed 16 fleet repair and maintenance facilities into service and found 178 missing fleet units
- Started work on six of the 37 worst-performing feeders and restored service to three 38 kV underground transmission feeders and 20 underground distribution feeders

## Real Results

- Reenergized the Cañas substation, benefiting 18,000 customers, among others
- Restored service to many areas that had experienced continual outages and presented safety risks to the public, such as Verde Mar (Humacao District), the Ponce Airport, the San Juan International Airport and Centro Medico in San Juan.
- Completed and filed 29 procedures with the Energy Bureau in support of System Operation Principles that govern the economic and reliable dispatch of energy produced by PREPA and private generators
- Filed 120+ regulatory and compliance submissions and represented LUMA in 11 conferences, hearings and workshops in front of the Energy Bureau

# Sustainable Energy Transformation

In support of the global effort to curb the impact of climate change and Puerto Rico's ambitious renewable energy goals, LUMA helped accelerate the growth of renewable energy.

## What We Did

- LUMA has now activated Net Energy Metering service for 95% of projects inherited on June 1, 2021, many of which had been pending for over a year
- Presented the plan for the offshore wind study currently underway with the National Renewable Energy Laboratory and participated in the proceeding to further deployment of electric vehicle infrastructure in Puerto Rico
- Passed two important milestones by signing LUMA's first transmission for net metering contract (a process the applicant started with PREPA three years ago) and performing the first-ever system analysis focused on minimizing network costs for utility-scale renewable integration to reduce the cost of renewable energy

## Real Results

**NET ENERGY METERING**

**15,000** customers activated

**70** MW distributed solar generation

since June 2021 and, in Q2 alone, we activated 7,500 customers and enabled 35 MW

**PHASE III STUDIES**

**844** MW solar

**220** MW battery storage

we completed Tranche 1 feasibility and system impact studies representing 21 projects

Creating a greener future

# LUMA Quarterly Report

For the period ending December 31, 2021

February 14, 2022

# Executive Summary

This document presents LUMA's Quarterly Report on operation of the Puerto Rico transmission and distribution (T&D) system for the second quarter of fiscal year 2022, October 2021 to December 2021.

All of us who work for LUMA Energy – over 3,000 strong, incredible workers many of whom work in inclement weather and difficult conditions at all hours to upgrade and rebuild Puerto Rico's energy infrastructure – are determined to build a more reliable, resilient, customer-centric and cleaner energy system for the people of Puerto Rico. Since June 1st, 2021, this has been our shared mission and our shared goal.

Given the need to address an array of historic energy and infrastructure challenges, we also understand and appreciate the profound importance of working in partnership with our regulators, the government of Puerto Rico, the federal government and our stakeholders to achieve what the people of Puerto Rico deserve and expect – an energy system and an energy provider that they can trust and depend on. From our safety training and customer service, to responding to storms and outages, our LUMA family is determined to improve every single day.

## CONTINUED PROGRESS AND FOCUS

The first quarter of LUMA's operations was characterized by gaining control of the T&D System, bringing on thousands of employees, rolling out new tools such as the MiLUMA app to communicate with our customers, removing debris and garbage from sites, and uncovering significant deficiencies and omissions within PREPA's organizational and infrastructure systems. While the many issues that the LUMA team encountered and noted in the Q1 report continued to pose challenges, the second quarter reflects continued progress across multiple areas, including responding to thousands of service calls and outages, increasing safety, technical and on-the-job training, improving communications with our customers, as well as putting into service facilities, equipment, lines and substations that had been out of service since before service commencement. The second quarter also saw LUMA increase its support for transition activities including supporting PREPA with previously incomplete work related to Hurricane Maria, PREPA's reorganization, exit from Title III and PROMESA.

The end of the second quarter of Fiscal Year 2022 marks LUMA's seventh month operating the T&D System. During this time, we have taken important steps to improve the energy system the people of Puerto Rico rely on. During the second quarter we made progress on our operations including the following key areas of focus:

### *Focus on Safety and Training*

- Provided nearly 5,000 hours of safety training and over 50 safety courses including First Aid / CPR, incident investigation, confined space entry, and electrical safety.
- Provided over 16,000 hours of technical training courses at the LUMA College for Technical Training, including Utility Lineworkers Program, Upskilling 1 & 2 plus other technical training such as Human External Cargo (HEC) operations, rigging, crane operations, load / cargo securement, mechanics DOT inspector certification, and maintenance and repair of aerial units.
- LUMA continued to decrease the number of safety incidents and decrease the severity of incidents, as the recordable injury rate declined 7% from 2.40 in Q1 to 2.23 in Q2 and the severity rate declined 80% from 13.16 in Q1 to 2.67 in Q2.

### *Focus on Customer and Community Services*

- Answered the phone 95% faster over the quarter, reducing the wait time from nine minutes and five seconds in September to 23 seconds in December.
- Achieved over a million registrations on or app downloads of MiLUMA tools.
- Received the fewest Act 17-2014 claims in the history of the law.
- Launched the LUMA Committed to Employees (LUCES) program, an employee giving and company matching program, from non-ratepayer funds, supporting community organizations within Puerto Rico.

### *Focus on Federally Funded Work*

- Securing approval from the Puerto Rico Energy Bureau (Energy Bureau or PREB) for 46 projects / programs representing $830 million.
- Bringing the total of PREB approved projects / programs to 132, representing $7.4 billion.
- Completing foundational planning, engineering and scoping work on 37 projects and 29 programs representing approximately $1 billion of federally funded work.
- Focusing on furthering the necessary basis of understanding to satisfy FEMA procedural requirements.

### *Focus on Sustainable Energy Transformation*

- Continued to activate Net Energy Metering (NEM) service for over 7,500 solar customers, bringing the fiscal year to date total to over 15,000 connections.
- Announced our publicly available digital Interconnection Capacity Maps for distribution and performed our first map update.

### *Focus on Repairing & Restoring the Electric Grid*

- Replacing 861 poles, bringing the year-to-date total to over 1,900.
- Restored service to three 38kV underground transmission feeders and 20 underground distribution feeders and connected 75 new commercial customers.
- Performed high-level assessments on 191 feeders, 116 transmission lines, and 103 substation sites to support project scoping and identifying focus areas for upcoming repairs and reconstruction.

While there is still much more work to do, the significant progress LUMA has made over these first two quarters of FY 2022 will help recover and transform Puerto Rico's grid infrastructure and energy system over the coming years. Most importantly, we are investing in our people to build a highly-trained and safety-focused energy utility workforce – a new generation of energy workers that will be better equipped respond to future storms and outages, unwind historic system limitations, advance and achieve key grid improvements, provide world-class customer service, and help empower a clean energy future.

As part of the company's commitment to ensure it is meeting its energy and fiscal priorities, halfway into the fiscal year, LUMA has spent 54% of its combined annual operational and non-federally funded capital budgets. The second quarter budgeted amounts are consistent with LUMA's forecasted progression of its operational and capital activities approved within the FY2022 Budget. As a measure of its commitment to fiscal responsibility and our customers, **LUMA forecasts its overall spending in line with aggregate budgets for the current fiscal year and does not anticipate requesting an increase of the Base**

**Rate established by the Energy Bureau's 2017 Rate Order**. Overall, LUMA remains focused on stabilizing the system and continuous improvement without rate impact on customers and their families.

# Contents

# Tables & Figures

# 1.0 Summary of Activities

LUMA activities for the second quarter included a wide array of work in Customer Experience, Operations, Utility Transformation and Support Services. LUMA's mission is to recover and transform the utility to deliver customer-centric, reliable, resilient, sustainable electricity at reasonable prices. By carrying out the plans and programs in its budget and the System Remediation Plan (SRP), LUMA seeks to accomplish the goals of Puerto Rico public energy policy. These are listed below for reference:

- Prioritize safety,
- Improve customer satisfaction,
- System rebuild and resiliency,
- Operational excellence, and
- Sustainable energy transformation.

During the second quarter LUMA continued to uncover deficiencies and omissions in the data provided by PREPA during the Front-End Transition. Once uncovered, activities focused on unwinding system limitations inherited from PREPA and laying the groundwork to make advancement. LUMA also focused on advancing key grid improvements while also continuing to achieve many milestones and successes throughout the quarter.

### CONTINUED TO FOCUS ON SAFETY AND TRAINING

Safety and training are a primary focus across the LUMA organization, with particular emphasis on field operations. Based on assessments made during and prior to the first quarter, LUMA lineworkers received specialized and dedicated training led by LUMA College for Technical Training. On average, each day 31 employees attended courses at the LUMA College during the second quarter. This investment in our people and in building critical skills among Puerto Rico's new utility workforce will continue and is fundamental to improving the electrical system. Experienced, skilled temporary field workers supplemented and expanded on-the-job training efforts to increase LUMA lineworker competencies. These highly skilled field workers continued to mentor and lead line and substation crews to ensure safety and facilitate appropriate work methods. Specialized training in the quarter included First Aid / CPR, incident investigation, confined space entry, electrical safety, Human External Cargo operations, rigging, crane operations, load / cargo securement, mechanics DOT inspector certification, and maintenance and repair of aerial units. Measures of safety continued to improve during the second quarter and the number and severity of incidents decreased.

**Key milestones include:**

- Establishing new safety and quality of work standards by adopting industry leading approaches for training and establishing new apprenticeship programs.
- Graduating the inaugural class of lineworkers from the LUMA College for Technical Training and providing more than 16,000 hours of skills training during the second quarter.
- Recording an 80% decline in the Occupational Safety and Health Administration (OSHA) injury severity rate from 13.16 in Q1 to 2.67 in Q2 and a 7% decline in the OSHA recordable injury rate from 2.40 in Q1 to 2.23 in Q2.

## IMPROVED OUTREACH AND RESPONSE TO CUSTOMERS

Building on LUMA's efforts since commencement, and adding four new regional contact centers, LUMA improved overall response rates as LUMA answered more calls in the second quarter while also decreasing wait times. LUMA also listened to customer feedback and implemented improvements to the MiLUMA self-serve platform which led to increased sign ups. Improved service quality through customer connectivity, employee training, and quality assurance and coaching programs enabled LUMA to achieve a reduction of Act 57-2014 claims to the lowest level received by the utility in the history of the law. LUMA continues to communicate and further its relationships with all municipalities and our customer experience teams are in daily contact to serve the communities' needs. LUMA also provided customers with useful system data including publishing on its website the forecast for estimated system load (demand), available generation capacity and total reserves at peak for that day. We also began to provide a web-based map which shows geographic areas currently affected by load shedding and estimated times for service restoration, should an event occur.

**Key milestones include:**

- Reducing the average speed of answer to customer calls from September to December by 95%. In December, customers who called LUMA experienced on average a less than 30 second wait time.
- Assisting over 465,000 people in our customer service centers, and sending 96,000 responses via direct message on Facebook, Twitter, Instagram and LinkedIn during Q2.
- Registering more than 451,127 people to use the MiLUMA app and more than 609,982 subscriptions to the free MiLUMA web service as of December 31, 2021.
- Engaging and connecting with mayors 3,587 times and 131 in person meetings in Q2 and held regional meetings / introductions with LUMA's vegetation management, operations, streetlight, substation and emergency response teams.
- Receiving approval from the Energy Bureau for LUMA's transparent and easy-to-read bill.
- Publishing the daily estimated system load and generation capacity on the LUMA website.

## ADVANCING FEDERALLY FUNDED CAPITAL PROJECTS

During the second quarter, LUMA continued to lay the foundation for the critical engineering and scoping work that is a necessary precursor to securing funding and beginning construction on hundreds of federally funded projects. LUMA's focus on advancing the permanent work, which will touch nearly every corner of Puerto Rico and represent $10.7 billion of repair, recovery and restoration is ongoing and increasing. LUMA has also continued to build on its established strong working relationships with Central Office for Recovery, Reconstruction and Resiliency (COR3) and Federal Emergency Management Agency (FEMA). Activities between the parties continue to be foundational in nature and are fundamental to the work to be conducted in the months and years to come. Many of the processes and concepts being established are new to FEMA and require careful deliberation, time and collaboration to finalize. During the quarter, LUMA also collaborated with the U.S. Department of Housing and Puerto Rico Department of Housing, resulting in the consideration of key electrical infrastructure projects in the Preliminary Action Plan for CDBG-DR funding.

**Key milestones include:**

- Securing approval from the Energy Bureau for 46 projects / programs representing $830 million.
- Bringing the total to 132 projects / programs PREB approved representing $7.4 billion.

- Following approval and assignment of a FAAST number, 66 projects were advanced into preliminary engineering, representing approximately $0.9 billion and are at various stages of preliminary engineering, planning and scoping.
- Issuing an engineering request for proposal, to expand LUMA's capacity to perform architecture and engineering (A&E) work required to develop projects and prepare for eventual construction.

PREPA's lack of advancement of federally funded work before June 1, 2021, continues to impact the timing of construction for these projects. As a results LUMA's FY2022 federally funded expenditures will be substantially lower than the original budget.

## EMPOWERING THE SUSTAINABLE ENERGY TRANSFORMATION

In support of the global effort to curb the impact of climate change and support Puerto Rico's ambitious renewable energy goals, LUMA continued to devote considerable effort to accelerating the growth of the renewable energy in Puerto Rico. Since June, we activated over 70 MW of NEM distributed solar generation and are on track to complete the backlog inherited on June 1, 2021, in the third quarter. LUMA also passed two important milestones by signing LUMA's first transmission net metering contract, (a process which the applicant started with PREPA three years ago) and performing the first ever system analysis in Puerto Rico focused on minimizing network costs related to utility scale renewable integration and therefore reducing the cost of renewable energy. Further, LUMA supported the Energy Bureau's new proceeding on Electric Vehicles through participation in Technical Workshops and providing comments on principle documents.

**Key renewable milestones include:**

- Activating 15,000 NEM customer connections since commencement, on average, activating ~2,100 distributed grid services per month from July to November 2021.
- Managing 40 active medium-scale distribution projects representing up to 100 MW.
- Conducting studies to determine how to integrate up to 1,000 MW of new utility scale renewable energy targets in the first tranche of the Request for Proposal authorized by the PREB.
- Coordinating with three other utility scale wind and solar energy facilities, totaling over 175 MW, to interconnect them safely to the grid as soon as possible.

## REPAIRING & RESTORING THE ELECTIRC GRID

LUMA continued to repair and replace key pieces of the grid infrastructure, executing outage repairs and vegetation management. Responding to 11,470 outage events and restoring power to our customers, LUMA also continued to restore service and infrastructure that was out of service prior to June 1, 2021, and in many cases has been out of service since Hurricane Maria. This includes the replacement of thousands of broken streetlights and unsafe poles, restoring service to over 20 underground transmission and distribution feeders, identifying 37 worst performing feeders and reenergizing portions of the Cañas substation in Ponce benefiting approximately 18,000 customers, among others. Working hand-in-hand with municipalities and governmental agencies, LUMA restored service to many areas which had experienced continual outages and presented safety risks to the public. These included Verde Mar (Humacao District), the Ponce Airport, the San Juan International Airport and Centro Médico, all of which helped improve the resiliency and reliability of the system in these areas.

Considerable work was done in Q2 to address the reliability of electricity delivery to our customers. Efforts were focused on personnel training, sharing pertinent information, best practices and lessons learned across the organization. Through process improvements included deploying the centralized planning and

dispatch formulated during Q1 across the island resulting in dispatching crews more effectively. Enabling technology, LUMA was able to group planned outages to reduce disruption of service to our customers, and in the case of unplanned outages, was able to dispatch a rapid repair team and following up with crews to effect full repairs in a coordinated manner. Further, LUMA started to deploy technology and equipment to improve performance including reclosers, trip savers and fault current indicators, among others.

**Key milestones include:**

- Responding to 11,470 outage events and restoring power to our customers.
- Performing high-level assessments on 191 feeders, 116 transmission lines, and 103 substation sites to support project scoping and identifying focus areas for upcoming T&D System work.
- Replacing 861 poles bringing the year-to-date total to over 1,900.
- Restoring service to over 20 underground transmission and distribution feeders, including the identification of 37 worst performing feeders
- Reenergizing portions of two substations.

In summary, during the second quarter and over the past seven months since we began operations, LUMA's activities have made immediate improvements to customer service, accelerating and supporting renewables, as well as repairing and stabilizing the system while advancing the longer-lasting and permanent upgrades needed to sustain and propel Puerto Rico's new energy future.

*The interim financial information provided within this report has not been subject to audit, and this information is not appropriate for unintended purposes. The limitations and lack of integration of PREPA's financial and related systems and identified pre-existing control gaps may also affect the overall accuracy of reported results.*

# 2.0 Spending over the Quarter

## 2.1 Summary

LUMA continues to deliver recovery and transformation improvements across the T&D System and organization through our O&M and Improvement Program activities and spending. This quarter our spending focused on advancing the Improvement Programs with $101 million spent on operating, capital – non-federally funded and capital – federally funded activities. Operational activities focused on training, vegetation management, fleet and billing accuracy and back office within the Customer Experience, Enabling and Support Services portfolios. Capital activities related to the T&D System infrastructure Improvement Programs within the Distribution, Transmission and Substation portfolios included distribution pole and conductor repairs, transmission pole replacement and line rebuild work.

**Table 2-1. Initial Budgets Summary ($ in millions)**

| 1 | | | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| | | *Schedule Reference* | **FY 2022 Budget[1]** | **Q2 Budget[1]** | **Q2 Actual** | **Variance ($)** | **Variance (%)** |
| | **Transmission & Distribution** | | | | | | |
| *1* | **Total Operating Expenditures** | *2.2* | **$ 524.8** | **$ 130.3** | **$ 158.3** | **$ (27.9)** | |
| *2* | **Non-Federally Funded Capital Expenditures** | *3.1* | **$ 124.1** | **$ 21.0** | **$ 22.1** | **$ (1.1)** | |
| *3* | **Subtotal** | | **$ 648.9** | **$ 151.4** | **$ 180.3** | **$ (29.0)** | **(19%)** |
| *4* | **Federally Funded Capital Expenditures** | *3.1* | **$ 650.4** | **$ 99.2** | **$ 8.9** | **$ 90.3** | **91%** |

[1] FY2022 and Q2 Budget figures above include 2% Reserve for Excess Expenditures.

## 2.2 Transmission & Distribution Operating Expenditures

The obstacles and challenges encountered in the first quarter continued to be uncovered and investigated during the second quarter. Spending continued to focus on addressing the backlog of activity left by PREPA on June 1, 2021. For more complex issues and limitations, LUMA focused its effort on understanding the challenges, assessing risks, developing plans and mitigating the limitations where possible. Total operating expenditures during Q2FY2022 were approximately $158 million as compared to a budget of $130 million.

Contributing to the operating variance was the priority placed on building a safe and effective energy workforce through increased training and mentorship by seconded skilled temporary employees and the associated LUMA lineworker overtime. In addition, there were higher-than-expected activities and costs of vegetation work during the second quarter as LUMA received approval to start the transition from less efficient legacy PREPA contracts to a new more cost-effective contract. Specifically, LUMA advanced foundational training to perform the essential tasks required to respond safely to outages and to restore the T&D System. Spending on such critical safety and operational training included on-the-job mentorship with line and substation crews having dedicated mentors, providing safety and technical training courses to hundreds of employees, and tens of thousands of hours of in class instruction.

### Table 2-2. Transmission & Distribution Total Operating Expenditures ($ in millions)

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| | | Transmission and Distribution Total Operating Expenditures | | | | |
| | | FY2022 Budget | Q2 Budget | Q2 Actual | Variance ($) | Variance (%) |
| | **Labor** | | | | | |
| 1 | Salaries, Wages and Benefits | 212.3 | 52.3 | 74.1 | (21.8) | |
| 2 | **Total Labor** | **$ 212.3** | **$ 52.3** | **$ 74.1** | **$ (21.8)** | **(42%)** |
| | **Non-Labor** | | | | - | |
| 3 | Materials & Supplies | 20.6 | 5.1 | 6.8 | (1.7) | |
| 4 | Transportation, Per Diem, and Mileage | 21.0 | 5.2 | 9.6 | (4.3) | |
| 5 | Property & Casualty Insurance | 15.4 | 3.9 | 3.8 | 0.0 | |
| 6 | Security | 9.6 | 2.4 | 4.2 | (1.8) | |
| 7 | IT Service Agreements | 30.4 | 7.6 | 4.5 | 3.1 | |
| 8 | Utilities & Rents | 19.0 | 4.7 | 4.3 | 0.5 | |
| 9 | Legal Services | 9.0 | 2.2 | 3.1 | (0.8) | |
| 10 | Communications Expenses | 4.7 | 1.2 | 0.5 | 0.7 | |
| 11 | Professional & Technical Outsourced Services | 88.2 | 22.1 | 24.9 | (2.9) | |
| 12 | Vegetation Management | 51.3 | 12.8 | 20.0 | (7.2) | |
| 13 | Regulation and Environmental Inspection | 4.0 | 1.0 | 0.1 | 0.9 | |
| 14 | Other Miscellaneous Expenses | 28.8 | 7.1 | 2.4 | 4.7 | |
| 15 | Other Expenses | 0.3 | 0.1 | - | 0.1 | |
| 16 | **Total Non-Labor / Other Operating Expense** | **$ 302.2** | **$ 75.5** | **$ 84.2** | **$ (8.7)** | **(12%)** |
| 17 | **Subtotal** | **$ 514.5** | **$ 127.8** | **$ 158.3** | **$ (30.5)** | **(24%)** |
| 18 | 2% Reserve for Excess Expenditures | 10.3 | 2.6 | - | 2.6 | |
| 19 | **Total Operating Expenditures** | **$ 524.8** | **$ 130.3** | **$ 158.3** | **$ (27.9)** | **(21%)** |

### 2.2.1 Customer Experience

LUMA's Customer Experience Department is core to LUMA's mission to deliver customer-centric, reliable, resilient, safe, and sustainable electricity by implementing appropriate communication protocols and standard billing and collection practices that personify courtesy, capture efficiencies, and create proactive solutions for customers.

During the second quarter, the team continued to focus on providing customers with multiple channels to connect with LUMA and on meeting greater than expected and historically recorded customer demand. LUMA expanded the users of the MiLUMA self-serve platform. As of December 31, 2021, 609,982 customers have registered an electronic MiLUMA account, and the MiLUMA app has been downloaded 451,127 times. This initiative will give our customers new ways to communicate with us and is foundational to improving customer satisfaction. During Q2 over 96,000 social media messages received a response.

LUMA also answered more customer calls in the second quarter even as we achieved higher key measures of customer service and response. LUMA decreased its Abandonment Rate from 17% in September 2021 to 4% in December 2021—a decrease of 13 basis points over the quarter. In addition, LUMA reduced its Average Speed of Answer by over 8 minutes. In September 2021 the Average Speed of Answer was 9 minutes and 5 seconds and for the month of December it was 23 seconds. This is the fastest Average Speed of Answer since it was reported to the Energy Bureau starting in June 2019.

LUMA's quality assurance and coaching program that was launched across customer experience workgroups in the first quarter continued to develop with the completion of over 3,800 quality assurance evaluations during Q2. The quality assurance program continued to provide on the job training through its daily team huddles that included process discussions, reminders and formal trainings in shorter "refresher" modules.

As a result of LUMA's efforts in improving customer connectivity, and employee training, LUMA received the fewest Act 57-2014 claims in the history of the law. In Q2, LUMA received only 1,218 claims, a 28% decrease from last quarter, and less than half of what PREPA received during the same period last year.

On November 16, 2021, LUMA received approval from the Energy Bureau for LUMA's new customer bill design. LUMA's new bill design will be easier to read, more transparent, has more charts and information, and will help customers understand what they are paying for, as well as enable customers to make better energy decisions. Specifically, the Energy Bureau determined that LUMA's model bill is "drafted in a clear and straightforward manner… it is easy to follow" and "complies with the public policy with respect to a transparent bill" (November 16, 2021, Resolution and Order,[1] pages 8-9, translated from Spanish).

Other key improvements to customer experience included the following:

- LUMA served more than 465,000 customers during the quarter at its 25 rebranded customer service centers and continued to reduce wait times to an average of 9 minutes 44 seconds in December 2021 (a decrease from 10 minutes 25 seconds on average in September 2021).

[1] Docket No. NEPR-MI-2021-0008 https://energia.pr.gov/wp-content/uploads/sites/7/2021/11/20211116-MI20210008-Resolucion-y-Orden.pdf

- LUMA continued to address the backlog of service orders by completing over 83,000 service orders (outstanding prior to June 1st, 2021)
- LUMA supported customers by proactively contacting customers to offer payment arrangements and direct customers to assistance programs. LUMA set up over 3,200 payment arrangements and supported ~265,000 households in receiving $21.5 million in assistance from the La Familia Low-Income Home Energy Assistance Program (LIHEAP) and the COVID Rental Assistance program. LUMA also worked with organizers to establish assistance for a COVID Homeowner pilot program with funding beginning in January 2022.
- LUMA's key accounts team worked with large industrial, commercial and government customers to address unfinished work from Hurricane Maria including the completion of a large project with the Puerto Rico National Guard Caguas Readiness Center.

While important progress was made in the second quarter in areas of customer service, LUMA continued to uncover Customer Care and Billing (CC&B) system limitations and legacy issues – including critical billing errors as part of the ongoing effort to improve billing accuracy and reduce non-technical line loss. LUMA began the standardization of all billing processes and implemented controls to disallow manual overrides that had previously been in place. This effort resulted in eliminating 200,000 obsolete alerts/errors, billing 52,900 more service agreements in Q2 than in Q1, and reducing the unbilled accounts to 15,896 at the end of the second quarter from a peak of over 57,000 in the first quarter.

Key variances within the Customer Experience department's operational costs include lower than expected labor as the team continues to hire and higher than expected professional and technical services costs as the team placed significant effort on stabilizing and investigating the concerning configuration and control issues with Oracle CC&B identified in the first quarter.

**Table 2-3. Customer Experience Operating Expenditures ($ in millions)**

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| | | Customer Experience | | | | |
| | | FY2022 Budget | Q2 Budget | Q2 Actual | Variance ($) | Variance (%) |
| | **Labor** | | | | | |
| 1 | Salaries, Wages and Benefits | 41.3 | 10.2 | 8.3 | 1.9 | |
| 2 | **Total Labor** | **$ 41.3** | **$ 10.2** | **$ 8.3** | **$ 1.9** | **19%** |
| | **Non-Labor** | | | | | |
| 3 | Materials & Supplies | 0.3 | 0.1 | 0.0 | 0.0 | |
| 4 | Transportation, Per Diem, and Mileage | 0.7 | 0.2 | 0.1 | 0.1 | |
| 5 | Property & Casualty Insurance | - | - | - | - | |
| 6 | Security | 0.2 | 0.1 | - | 0.1 | |
| 7 | IT Service Agreements | - | - | 0.9 | (0.9) | |
| 8 | Utilities & Rents | 0.0 | 0.0 | 0.5 | (0.5) | |
| 9 | Legal Services | 0.6 | 0.2 | - | 0.2 | |
| 10 | Communications Expenses | 0.3 | 0.1 | - | 0.1 | |
| 11 | Professional & Technical Outsourced Services | 23.7 | 5.9 | 7.4 | (1.5) | |
| 12 | Vegetation Management | - | - | - | - | |
| 13 | Regulation and Environmental Inspection | - | - | - | - | |
| 14 | Other Miscellaneous Expenses | 1.1 | 0.3 | 0.1 | 0.2 | |
| 15 | Other Expenses | - | - | - | - | |
| 16 | **Total Non-Labor / Other Operating Expense** | **$ 27.0** | **$ 6.7** | **$ 9.0** | **$ (2.2)** | **(33%)** |
| 17 | **Total Operating Expense** | **$ 68.3** | **$ 17.0** | **$ 17.3** | **$ (0.3)** | **(2%)** |

### 2.2.2 Operations

The LUMA Operations department oversees and manages the critical day-to-day work on the transmission and distribution infrastructure to provide ongoing safe and reliable electric service to all our customers.

Ensuring the safety of our workforce and customers remains our top priority. During the second quarter our approach focused on training our lineworkers. As a result of the assessments performed during and prior to the first quarter, LUMA developed two upskilling courses specifically designed to address the significant deficiencies in overall job skills and safety processes and procedures. During the second quarter 132 Puerto Rican lineworkers attended one of the two- to three-week upskilling courses or the 13-week Utility Lineworker Program. Collectively LUMA provided over 16,000 hours of skills training at LUMA's College for Technical Training.

Additionally, line crews and pilots were provided three training programs for HEC operations, and heavy equipment operators, groundmen and supervisors were trained in rigging, crane operations, and load / cargo securement. The Q2 safety results attest to the effectiveness of LUMA's initiatives through the first half of the year. During the second quarter LUMA had a recordable injury rate of 2.23, a Days Away Restricted Duty (DART) rate of 0.85, and a Severity Rate of 2.67. Simply put, fewer employees are getting injured now.

Given the number of lineworkers in training during the second quarter - on average 31 lineworkers were at the off-site training every day of the second quarter - LUMA continued to rely on skilled temporary employees to provide mentorship and critical guidance to those crews in the field and operate the T&D System / respond to customer needs while this off-site training continued. The skilled mentors focused on ensuring completion of job hazard analyses and teaching safe, efficient, and standard work practices.

LUMA continued to fix the portions of the infrastructure which have been out of service since Hurricane Maria, including fully re-energizing Cañas Substation benefiting approximately 18,000 customers. Operations also repaired and enabled 10 mobile substations, replaced 861 poles bringing the year-to-date total to over 1,900, worked closely with the municipality for Humacao to illuminate main road 906, which has historically been completely dark, and completed more than 85,000 customer service requests.

LUMA also completed 75 new commercial customer connection projects and repaired 8 AMR related transformers which increased the number of meters that can be read remotely. System protection issues were addressed by making security repairs to substations, replacing relays and telecom Remote Terminal Units (RTU) and repairing fiber optic links. LUMA deployed its crews across the regions repairing streetlighting identified as high-risk areas due to public safety, as well as changed over 2,500 non-working streetlights to LED.

During Q2, LUMA responded to 11,470 outage events and restoring power to our customers, started work on six of the 37 worst performing feeders, and restored service to three 38kV underground transmission feeders and 20 underground distribution feeders, the majority of which date back to Hurricane Maria and all prior to June 1, 2021. To further improve reliability, the crews took a two-step approach to restoration and repairs with an initial focus on restoring service and a later dispatch to conduct permanent repairs. LUMA also started to install reclosers to reduce outage durations with three installed during Q2 and the remaining 13 to be installed during the remainder of the fiscal year.

LUMA continued to bring the fleet assets into compliance with US Department of Transportation (USDOT), Occupational Safety and Health Administration (OSHA), and the American National Standards Institute (ANSI) with 625 heavy units being USDOT 396.17 certified and 450 specialized units ANSI A92.2 certified. LUMA continued to upgrade fleet facilities to meet industry standards with 16 repair and maintenance facilities being put into operation. All mechanics were certified as USDOT Section 396 inspectors and LUMA started training 40 mechanics in the maintenance and repair of aerial units. During Q2 significant efforts continued to find missing fleet units, the team identified 178 fleet units previously unaccounted for, reducing the unaccounted fleet units by 178 to 686 at the end of Q2. LUMA also advanced the procurement of 302 light units to right-size the fleet portfolio and increased the percent of vehicles in service by 20% to 86% at the end of Q2.

LUMA is working with five vegetation management contractors (approximately 450 full time workers), to continue to respond to urgent outages and customer and public safety requests. During Q2, vegetation was cleared from 156 substation sites (295 of 302 substations have been cleared in FY2022) and bare ground treatment was applied at 137 of these sites. LUMA also executed a new vegetation management contract during the second quarter which will result in more specialized equipment being utilized on the island and lower rates.

Key variances to the Operations department's budget reflect a commitment to prioritize LUMA training and the need to utilize seconded, skilled lineworkers for critical on-the-job safety and technical mentorship and training. The seconded skilled lineworkers provided critical field support as the LUMA College for Technical Training provided off-site safety and workplace training. Such coordinated training and development were in response to the significantly lower state of readiness to meet basic safety and work performance requirements that were initially identified during the first quarter assessments. Variance is also attributed to higher-than-expected activity and costs of vegetation work due to utilization of less efficient legacy PREPA contracts as we transition to a new specialized contractor.

**Table 2-4. Operations Operating Expenditures ($ in millions)**

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| | | | | Operations | | |
| | | FY2022 Budget | Q2 Budget | Q2 Actual | Variance ($) | Variance (%) |
| | **Labor** | | | | | |
| 1 | Salaries, Wages and Benefits | 114.6 | 28.4 | 49.1 | (20.7) | |
| 2 | **Total Labor** | **$ 114.6** | **$ 28.4** | **$ 49.1** | **$ (20.7)** | **(73%)** |
| | **Non-Labor** | | | | | |
| 3 | Materials & Supplies | 18.3 | 4.6 | 5.8 | (1.2) | |
| 4 | Transportation, Per Diem, and Mileage | 16.5 | 4.1 | 8.7 | (4.6) | |
| 5 | Property & Casualty Insurance | - | - | - | - | |
| 6 | Security | - | - | (0.1) | 0.1 | |
| 7 | IT Service Agreements | 3.2 | 0.8 | 0.0 | 0.8 | |
| 8 | Utilities & Rents | 9.0 | 2.3 | 3.6 | (1.4) | |
| 9 | Legal Services | 0.5 | 0.1 | - | 0.1 | |
| 10 | Communications Expenses | 1.7 | 0.4 | 0.0 | 0.4 | |
| 11 | Professional & Technical Outsourced Services | 22.5 | 5.6 | 10.4 | (4.8) | |
| 12 | Vegetation Management | 51.3 | 12.8 | 20.0 | (7.2) | |
| 13 | Regulation and Environmental Inspection | - | - | 0.1 | (0.1) | |
| 14 | Other Miscellaneous Expenses | 12.3 | 3.0 | 1.0 | 2.0 | |
| 15 | Other Expenses | - | - | - | - | |
| 16 | **Total Non-Labor / Other Operating Expense** | **$ 135.3** | **$ 33.8** | **$ 49.5** | **$ (15.8)** | **(47%)** |
| 17 | **Total Operating Expense** | **$ 250.0** | **$ 62.2** | **$ 98.7** | **$ (36.5)** | **(59%)** |

### 2.2.3 Utility Transformation

LUMA's Utility Transformation department provides the technical, engineering and programmatic framework required to deliver safe and reliable service to its customers, supports key initiatives as defined in the SRP and maintains focus on the long-range vision articulated in the Integrated Resource Plan (IRP). This department also plans and implements the capital investment programs, including all federally funded work on the electric grid.

The team continued to implement its improvements to the NEM program including streamlining the application processing and improving communication with customers. As a result, LUMA has activated NEM service for over 15,000 customers since June and ~7,500 during Q2. This represents over 70 MW of distributed generation. LUMA has now activated NEM service for 95 percent of the projects that were inherited on June 1, 2021, many of which had been pending for over a year.

Across metering, the team started development of a meter replacement plan to upgrade the outdated AMR system, developed specifications for meters to be used at demarcation points between the T&D System and PREPA generating facilities and improved the meter reading rate (for AMR) to 94% (as compared to 85% on commencement).

Considerable work was done in Q2 to address the reliability of electricity delivery to our customers. A task force was created to augment the work already being performed to reduce the frequency and duration of power outages. Efforts focused on process improvements, personnel training, testing a "proof-in-concept" for GPS tracking, and sharing best practices and lessons learned across the organization. LUMA also initiated rapid deployment of technology and equipment to improve performance including deployment of reclosers, trip savers, fault current indicators and fusing strategy and a feeder information and repository manager.

The second quarter marked the completion of operational procedures associated with the System Operation Principles (SOP). This is the first time Puerto Rico has SOP procedures to guide the interaction of the bulk power systems and the T&D System. A foundational milestone in the transformation of the energy sector as laid out in Act 57-2014, as amended, Act 120-2018 and Act 17-2019. The SOP procedures were submitted on schedule to the Energy Bureau on December 23, 2021. Focus now shifts to implementation of the procedures and training personnel. This effort will be collaborative across LUMA and PREPA generation personnel.

LUMA's focus during the second quarter was to continue advancing FEMA projects / programs and make up ground given the lack of material advancement of engineering by PREPA in the five months prior to commencement. LUMA made significant advancements including completing foundational planning, engineering and scoping work on 66 projects / programs representing approximately ~$0.9 billion of federally funded work. This included advancing procurement of A&E services and construction services to support Improvement Programs across the Distribution, Transmission, Substation and Control Center and Buildings portfolios.

LUMA continues to support system rebuilding efforts by creating functional specifications to help accelerate engineering work on capital projects. This includes foundational work due to the lack of documentation/drawings received from PREPA, such as investigating any models received from PREPA and fixing errors, high-level assessments of the assets and the development of distribution area plans. In parallel to the engineering and scoping work, LUMA continued implementation of the project governance

model for the execution of FEMA and non-FEMA projects, noting that 46 projects / programs representing $830 million were submitted and approved by PREB / assigned FEMA FAAST numbers.

As part of our commitment to building a clean energy future for Puerto Rico, LUMA continued to support in completing Phase III Studies (Facility and System Impact) for proposed renewables projects, representing up to 1,000 MW of solar and potentially hundreds of megawatts of energy storage. Further, LUMA produced a detailed Technical Interconnections Requirements manual to provide additional guidance to developers on the technical requirements for interconnection of the generating facilities and microgrids[2]. LUMA also attended a Technical Workshop with and provided written comments to the Energy Bureau related to electric vehicle charging[3]. In addition, LUMA collaborated with the Department of Energy (DOE) and National Renewable Energy Laboratory (NREL) in various renewable initiatives including scope definition of PR100, wind studies to replace Palo Seco Generation, and Vieques/Culebra microgrid concepts and designs.

To support transparency for customers, in the second quarter LUMA started publishing the system load and generation capacity on the LUMA website. Customers can now see the estimated peak load and estimated generation capacity for the day. Further, LUMA developed a web-based map that, should a load shed event occur, shows the areas affected by load shedding and the estimated times for service restoration. The maps were refreshed with an update that captured all distributed generation installed until November 30th, 2021.

High-level assessments continued during the second quarter. At of the end of Q2, 191 feeders, 116 transmission lines, and 103 substation sites have been assessed. LUMA also continued its grid reinforcement initiatives which included identifying a priority list of assets for repair or replacement. As of December 31, 2021, 974 items were identified as potentially negatively impacting reliability. During Q2 all items were assessed and prioritized and 6% were repaired / replaced. Further, LUMA inspected and completed engineering on the 37 worst performing feeders and work started on six feeders.

LUMA is in the process of implementing industry recognized software and processes to analyze loading conditions on existing structures and facilitate proper designs in accordance with LUMA's loading criteria. LUMA has carried out extensive review and update of existing engineering standards and the development of new standards and specifications to ensure compliance with LUMA's design criteria. This includes 743 Distribution Standards, over 300 Substation Standards and Specifications, and 124 Transmission Line Standards.

[2] https://energia.pr.gov/wp-content/uploads/sites/7/2021/11/Motion-to-Submit-Additional-Comments-to-Preliminary-Draft-of-Interconnection-Regulation-NEPR-MI-2019-0009.pdf

[3] https://energia.pr.gov/wp-content/uploads/sites/7/2021/11/Motion-to-Submit-LUMAs-Written-Comments-on-Electric-Vehicles-Charging-Infrastructure-Topics-NEPR-MI-2021-0013.pdf

### Table 2-5. Utility Transformation Operating Expenditures ($ in millions)

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| | | | | Utility Transformation | | |
| | | FY2022 Budget | Q2 Budget | Q2 Actual | Variance ($) | Variance (%) |
| | **Labor** | | | | | |
| 1 | Salaries, Wages and Benefits | 20.0 | 4.6 | 6.6 | (2.0) | |
| 2 | **Total Labor** | **$ 20.0** | **$ 4.6** | **$ 6.6** | **$ (2.0)** | **(43%)** |
| | **Non-Labor** | | | | | |
| 3 | Materials & Supplies | 0.6 | 0.2 | (0.1) | 0.2 | |
| 4 | Transportation, Per Diem, and Mileage | 1.9 | 0.5 | 0.3 | 0.1 | |
| 5 | Property & Casualty Insurance | - | - | - | - | |
| 6 | Security | - | - | 0.0 | (0.0) | |
| 7 | IT Service Agreements | - | - | 0.0 | (0.0) | |
| 8 | Utilities & Rents | 0.0 | 0.0 | 0.5 | (0.5) | |
| 9 | Legal Services | - | - | - | - | |
| 10 | Communications Expenses | 0.0 | 0.0 | 0.0 | 0.0 | |
| 11 | Professional & Technical Outsourced Services | 6.8 | 1.7 | 2.3 | (0.6) | |
| 12 | Vegetation Management | - | - | - | - | |
| 13 | Regulation and Environmental Inspection | - | - | - | - | |
| 14 | Other Miscellaneous Expenses | 0.8 | 0.2 | 0.0 | 0.2 | |
| 15 | Other Expenses | - | - | - | - | |
| 16 | **Total Non-Labor / Other Operating Expense** | **$ 10.1** | **$ 2.5** | **$ 3.0** | **$ (0.5)** | **(21%)** |
| 17 | **Total Operating Expense** | **$ 30.1** | **$ 7.1** | **$ 9.6** | **$ (2.5)** | **(35%)** |

### 2.2.4 Support Services

LUMA's Support Services functions enable the delivery of electric service by supporting the whole business. These include safety, emergency management, IT OT, environmental, legal, procurement, regulatory and other areas that are imperative to LUMA's success in meeting its mission and achieving the key goals.

During Q2, and reflecting a company-wide emphasis on operational and workplace safety, LUMA continued to decrease the number of safety incidents and decrease the severity of incidents, as the recordable injury rate declined 7% from 2.40 in Q1 to 2.23 in Q2 and the severity rate declined 80% from 13.16 in Q1 to 2.67 in Q2. LUMA's focus in Q2 remained on prioritizing safety through the continuance of the mentorship program that matches each field crew with an experienced, skilled and trained temporary employee. To further promote a safe workplace, LUMA performed 256 site inspections and investigations with field crews and approximately 50 safety and technical training classes. One milestone was the graduation of the first group of 21 apprentice line workers from LUMA's Palo Seco Training Facility.

In December 2021, LUMA also responded to a rapid increase in COVID-19 cases on-island, requiring rapid adaption to changing protocols. LUMA focused on customer and employee safety by prioritizing phone resolution to customer concerns, disinfecting customer service centers and work sites more regularly and enabling eligible employees to work from home. LUMA also offered on-site COVID-19 vaccine booster clinics to employees in our main office in December and four at operation centers across the island in January 2022. LUMA completed a public safety social media campaign held from Oct 15-31, highlighting key messages for our customers and the public to keep themselves safe around electricity.

LUMA kept customers informed about the features and benefits of using our social media channels to communicate with LUMA. Also, through social media, LUMA connected with customers regarding LUMA's services, repair work in their area, tips for fraud awareness and public safety and celebrated LUMA's dedicated workers. Delivering on LUMA's commitment to transparency and clear communication, LUMA responded to over 120 media requests.

LUMA continued to grow its relationships with Puerto Rico's community organizations, participating in community activities across the island in partnership with the American Red Cross of Puerto Rico and the Boys and Girls Club of Puerto Rico. This quarter also saw the launch of the (LUCES) program, an employee giving and company matching program, from non-ratepayer funds, supporting community organizations within Puerto Rico. The matching company contribution is provided 100% by LUMA's parent companies, thus does not come from electricity rates.

LUMA also substantially completed the clearing of the backlog of more than 6,000 unprocessed invoices for goods purchased or services rendered prior to June 1, 2021, as well as implementing a change from bi-weekly to weekly payroll for LUMA's employees. Additionally, LUMA modified processes and procedures throughout the procure to pay cycle; reducing the cycle time associated with approving, processing and paying vendor invoices. Continued improvement in cybersecurity was realized through deployment of security applications and protocols and decommissioning of obsolete devices.

Given the company importance placed on transparency, requests for information from legislative inquiries and public hearings remained a major focus for LUMA in the second quarter. Monitoring legislative activity, responding to requests for comments and preparing LUMA employees for public hearings is an important and significant responsibility, requiring multiple interactions with Senate and House of Representatives members and staff over the course of many weeks and months on some occasions.

Responding to these inquiries requires considerable resources and time from LUMA to comply with legislative or legal requests.

LUMA participated and supported productive discussions with the Energy Bureau across a broad range of topics. During Q2, LUMA continued to work diligently on over 20 active regulatory dockets with the Energy Bureau, including actively participating in eleven Technical Conferences. Specifically, LUMA completed and submitted 29 SOP procedures ahead of schedule in December 2021. LUMA also completed discovery on intervenor testimony for the adjudicative proceeding for Performance Metrics docket, submitted a combined draft request for qualifications and RFP documents in support of the next integrated resource plan, filed the bimonthly physical security progress report and 12 physical security governance documents and participated in the Puerto Rico Cost Test proceeding to develop a framework for evaluating cost effectiveness of Demand Response and Energy Efficiency programs. Further progressing LUMA's efforts to support renewable energy, LUMA presented the plan for the Offshore Wind Study that is underway with the NREL and participated in the proceeding to further deployment of electric vehicle infrastructure in Puerto Rico with various stakeholder groups.

LUMA also responded to requests from new executive and management team members at PREPA with respect to the T&D OMA operating structure, including Shared Services, and provided support for transition activities. These activities included supporting PREPA with previously incomplete work related to Hurricane Maria, PREPA's reorganization including GridCo-GenCo agreement negotiations, exit from Title III and PROMESA. It is anticipated that these activities will continue to increase throughout the year as a renewed focus on PREPA's reorganization, exit from Title III and PROMESA intensifies.

Key variances within the Support Services department's operational expenditures includes lower than anticipated costs for utilities and rents, IT service agreements, and miscellaneous expenses, offset by increases from labor and security. LUMA notes that the lower than expected utilities and rent costs were mainly due to an estimate for services provided in Q1 being higher than actual costs. Miscellaneous costs variance is mainly attributed to lower than forecasted costs in the quarter as many upfront costs such as initial moving, cleanup and debris removal costs associated with office buildings were experienced in the previous quarter. Labor costs were elevated compared to budget because of significant ongoing recruiting efforts and faster than anticipated hiring within this department. Increased costs for security relate to higher than forecasted ongoing requirements for the safety of facilities and field personnel.

### Table 2-6. Support Services Operating Expenditures ($ in millions)

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| | | Support Services | | | | |
| | | FY2022 Budget | Q2 Budget | Q2 Actual | Variance ($) | Variance (%) |
| | **Labor** | | | | | |
| 1 | Salaries, Wages and Benefits | 36.3 | 9.0 | 10.1 | (1.0) | |
| 2 | **Total Labor** | **$ 36.3** | **$ 9.0** | **$ 10.1** | **$ (1.0)** | **(11%)** |
| | **Non-Labor** | | - | - | | |
| 3 | Materials & Supplies | 1.3 | 0.3 | 1.1 | (0.7) | |
| 4 | Transportation, Per Diem, and Mileage | 1.9 | 0.5 | 0.5 | 0.0 | |
| 5 | Property & Casualty Insurance | 15.4 | 3.9 | 3.8 | 0.0 | |
| 6 | Security | 9.3 | 2.3 | 4.2 | (1.9) | |
| 7 | IT Service Agreements | 27.2 | 6.8 | 3.7 | 3.1 | |
| 8 | Utilities & Rents | 10.0 | 2.5 | (0.4) | 2.9 | |
| 9 | Legal Services | 7.9 | 2.0 | 3.1 | (1.1) | |
| 10 | Communications Expenses | 2.7 | 0.7 | 0.5 | 0.2 | |
| 11 | Professional & Technical Outsourced Services | 35.3 | 8.8 | 4.8 | 4.0 | |
| 12 | Vegetation Management | - | - | - | - | |
| 13 | Regulation and Environmental Inspection | 4.0 | 1.0 | - | 1.0 | |
| 14 | Other Miscellaneous Expenses | 14.6 | 3.7 | 1.4 | 2.3 | |
| 15 | Other Expenses | 0.3 | 0.1 | - | 0.1 | |
| 16 | **Total Non-Labor / Other Operating Expense** | **$ 129.8** | **$ 32.5** | **$ 22.6** | **$ 9.8** | **30%** |
| 17 | **Total Operating Expense** | **$ 166.2** | **$ 41.5** | **$ 32.7** | **$ 8.8** | **21%** |

## 2.3 T&D Capital — Federal and Non-Federal Funded

Taking essential actions that are vital to building the critical energy infrastructure that will support the recovery and transformation of Puerto Rico's T&D infrastructure remained a critical priority in Q2. Specifically, LUMA advanced its federally funded capital programs through preliminary engineering, planning and scope development work. In addition, LUMA spent a considerable effort laying the groundwork for the capital activities such as reviewing, fixing and upgrading models as well as documenting 1,167 new standards and specifications for distribution, transmission and substation infrastructure. This considerable effort will support LUMA's pipeline of federally funded capital programs. While these preliminary actions taken by LUMA are instrumental to the development of energy projects, it will not make up for the significant lack of work conducted prior to June 1, 2021, and the time it will take to set up the new processes and concepts with COR3 and FEMA. Because of these legacy issues that predate LUMA, federal funding spending is significantly below budget for Q2 FY 2022.

Non-federally funded capital activities were advanced during the second quarter most significantly within the Customer Experience, Distribution and Transmission portfolios. Activities included streetlight repairs, distribution and transmission pole replacements and engineering associated with transmission line rebuilding.

### 2.3.1 Capital Spending by Portfolio

**Table 2-7. Improvement Portfolios – Total Capital Expenditures – Federally Funded ($ in millions)**

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| | | Federally Funded Capital | | | | |
| | **Improvement Portfolio** | **FY2022 Budget** | **Q2 Budget** | **Q2 Actual** | **Variance ($)** | **Variance (%)** |
| 1 | Customer Experience | 82.7 | 12.4 | (2.6) | 15.0 | |
| 2 | Distribution | 199.2 | 29.9 | 1.6 | 28.3 | |
| 3 | Transmission | 235.9 | 36.6 | 3.4 | 33.2 | |
| 4 | Substations | 89.1 | 13.4 | 2.4 | 11.0 | |
| 5 | Control Center & Buildings | 9.3 | 2.2 | 1.4 | 0.8 | |
| 6 | Enabling | 17.1 | 4.1 | 2.6 | 1.5 | |
| 7 | Support Services | 4.3 | 0.7 | 0.1 | 0.5 | |
| 8 | **Subtotal** | **$ 637.7** | **$ 99.2** | **$ 8.9** | **$ 90.3** | **91%** |
| 9 | **Other** | | | | | |
| 10 | 2% Reserve for Excess Expenditures | 12.8 | 2.0 | - | 2.0 | 100% |
| 11 | **Total Capital Expenditures** | **$ 650.4** | **$ 101.2** | **$ 8.9** | **$ 92.3** | **91%** |

**Table 2-8. Improvement Portfolios – Total Capital Expenditures – Non-Federally Funded ($ in millions)**

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| | | Non Federally Funded Capital | | | | |
| | **Improvement Portfolio** | **FY2022 Budget** | **Q2 Budget** | **Q2 Actual** | **Variance ($)** | **Variance (%)** |
| 1 | Customer Experience | 13.1 | 2.0 | 7.4 | (5.5) | |
| 2 | Distribution | 35.3 | 5.3 | 7.7 | (2.4) | |
| 3 | Transmission | 1.7 | 0.3 | 2.6 | (2.3) | |
| 4 | Substations | 18.9 | 2.8 | 0.4 | 2.4 | |
| 5 | Control Center & Buildings | 3.2 | 0.8 | 0.6 | 0.2 | |
| 6 | Enabling | 41.3 | 8.0 | 2.2 | 5.7 | |
| 7 | Support Services | 8.2 | 2.0 | 1.2 | 0.8 | |
| 8 | **Subtotal** | **$ 121.6** | **$ 21.0** | **$ 22.1** | **$ (1.1)** | **(5%)** |
| 9 | **Other** | | | | | |
| 10 | 2% Reserve for Excess Expenditures | 2.4 | 0.4 | - | 0.4 | 100% |
| 11 | **Total Capital Expenditures** | **$ 124.1** | **$ 21.4** | **$ 22.1** | **$ (0.6)** | **(3%)** |

# 3.0 T&D Activities by Portfolio

LUMA's Improvement Programs were designed to address the significant and substantial gaps identified during the Front-End Transition. These programs were developed in late 2020, subsequently reviewed and approved by P3 Authority, and then reviewed and approved by the Energy Bureau as part of the Initial Budgets in docket NEPR-MI-2021-0004 and the System Remediation Plan in docket NEPR-MI-2020-0019. Program spending includes operating expenditures as well as capital costs within the FY2022 budget and included in the 2022 Fiscal Plan approved by the FOMB. Within these programs, specific project initial Scopes of Work (SOWs) for federally funded projects have been submitted and reviewed by the Energy Bureau in docket NEPR-MI-2021-0002.

The Improvement Programs are organized into portfolios of similar, interdependent programs that together cover all functional areas of the utility. The seven Improvement Program portfolios are:

- Customer Experience
- Distribution
- Transmission
- Substation
- Control Center and Buildings
- Enabling
- Support Services

Table 3-1 below provides a summary of FY2022 quarterly spending by portfolio and includes federally funded capital expenditures, non-federally funded capital expenditures and program-related operational expenditures. The following subsections 3.1.1 through 3.1.7 provide Improvement Program summaries, including spending summaries, and status updates on material[4] programs. For a comprehensive listing of SRP milestones for all SRP Improvement Programs, please refer to the schedule package included with this report: Exhibit 1, Tab 'SRP Milestones'.

Given the delays that predate LUMA that resulted in slower than anticipated deployment of federal funding as discussed above and in Section 4.0, Distribution, Transmission, and Substation portfolio spending is lower than budgeted in the second quarter. This trend is consistent with the first quarter and was common amongst the asset-related Improvement Programs. LUMA's activities focused on the advancement of federally funded projects and continual efforts to support the establishment of new processes and concepts with COR3 and FEMA. Even though LUMA's activities, such as engineering, planning and scoping are vital to ensuring the next phase of federal funded projects, they did not offset the significant challenges discovered upon commencement and the time and effort that will be required to set up processes with COR3 and FEMA and have driven lower spending than anticipated through Q2 and the remainder of FY 2022. Among these challenges that predate LUMA included:

1. PREPA did not advance approved projects as expected and outlined in PREPA's 10-Year Plan as filed within NEPR-MI-2021-0002 or contemplated under the T&D Operation and Maintenance Agreement (T&D OMA) prior to commencement;
2. Setting up new processes and protocols with COR3 and FEMA;

[4] Material programs include those programs with budgets that are more than 5 percent of the overall FY 2022 portfolio budget.

3. LUMA was unable to work directly with FEMA prior to commencement; and,
4. LUMA expected that as of commencement on June 1, PREPA would have made significantly more progress on the engineering of T&D capital projects.

On June 1, 2021, LUMA found almost no progression with A&E firms had been completed. The result is that projects are six months behind what had been anticipated in the Initial Budgets.

Since June 1, 2021, LUMA has made significant progress on the engineering of T&D capital projects and has made up for much of the five months of preliminary engineering that was supposed to occur prior to commencement. In the second quarter, LUMA established federal funding processes, developed scopes of work, commenced procurement to expand LUMA's A&E capacity and developed internal processes training and controls to support the federal funding process.

In addition to federal funding and as part of the Improvement Programs, LUMA took the following actions during the second quarter:

- Continued to make improvements to deficient process or activities including vegetation management, fleet, CC&B, among others;
- Conducting training across the organization with a focus on safety and technical field training;
- Carrying out non-federally funded capital and maintenance activities on the T&D system;
- Made improvements to our customer information systems and how we provide information to our customers; and
- Reviewing, fixing and upgrading models and standards to guide our future capital work.

In the first quarterly report, LUMA identified that training deficiencies permeated throughout the organization, including employees from all departments from the office to the field. LUMA also identified that this training will continue to cost more than anticipated due to the low assessment levels across the organization. Through the second quarter, LUMA has continued to focus on training, among other activities outlined above, to ensure the organization is prepared to execute the crucial improvements outlined in our Improvement Programs. Although in some cases, our efforts to progress some of our Improvement Programs have cost more due to significant deficiencies that were identified in Q1 and continue to cause additional variances in Q2.

Overall operational spending has been slightly higher than anticipated due to the above noted deficiencies and omissions found upon commencement. Capital non-federal funded spend is in line with our second quarter budget and federal funded spending lower than originally budgeted given the delayed progress and the added time required with COR3 and FEMA to set up these new processes. LUMA is working to advance schedules where possible, but, as identified in the first quarter, federally funded spending will ultimately be pushed later in FY2022 and through FY2023.

# LUMA Quarterly Report

## Table 3-1. Improvement Portfolio and Program Summary ($ in millions)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Q2 Budget | | | | | Q2 Actuals | | | | | Q 2 Total Variance | |
| | Portfolio | Program | Q2 Federal Funded CapEx | Q2 Non-Federal Funded CapEx | Q2 OpEx | Total | SRP Total | Q2 Federal Funded CapEx | Q2 Non-Federal Funded CapEx | Q2 OpEx | Total | SRP Total | $ | % |
| 1 | **Customer Experience** | | **$ 12.4** | **$ 2.0** | **$ 2.9** | **$ 17.3** | **$ 5.8** | **$ (2.6)** | **$ 7.4** | **$ 3.9** | **$ 8.6** | **$ 3.3** | **$ 8.6** | **50%** |
| 2 | | Distribution Streetlighting | 12.0 | - | - | 12.0 | 3.8 | (2.7) | 6.0 | - | 3.3 | 3.3 | | |
| 3 | | Billing Accuracy & Back Office | - | 0.2 | 2.0 | 2.2 | 0.8 | - | 0.4 | 3.6 | 4.0 | - | | |
| 4 | | Standardized Metering & Meter Shop Setup | 0.0 | 0.9 | 0.0 | 0.9 | 0.9 | - | 0.0 | 0.2 | 0.2 | - | | |
| 5 | | AMI Implementation Program | - | 0.6 | 0.3 | 0.9 | - | 0.0 | - | - | 0.0 | - | | |
| 6 | | Programs <5% of Portfolio Total | 0.4 | 0.3 | 0.6 | 1.2 | 0.4 | 0.0 | 1.0 | 0.0 | 1.0 | - | | |
| 7 | **Distribution** | | **$ 29.9** | **$ 5.3** | **$ 0.3** | **$ 35.5** | **$ 24.9** | **$ 1.6** | **$ 7.7** | **$ 0.1** | **$ 9.4** | **$ 3.2** | **$ 26.1** | **73%** |
| 8 | | Distribution Line Rebuild | 12.3 | 0.8 | - | 13.1 | 8.3 | 1.1 | 0.3 | - | 1.4 | 1.1 | | |
| 9 | | Distribution Pole and Conductor Repair | 12.8 | - | - | 12.8 | 12.8 | 0.2 | 7.4 | 0.1 | 7.7 | 1.8 | | |
| 10 | | Distribution Automation | 1.9 | 3.9 | 0.0 | 5.8 | - | 0.1 | 0.0 | - | 0.1 | 0.0 | | |
| 11 | | Distribution Lines Inspection | 3.0 | 0.6 | 0.3 | 3.8 | 3.8 | 0.3 | - | - | 0.3 | 0.3 | | |
| 12 | | Programs <5% of Portfolio Total | - | - | - | - | - | - | - | - | - | - | | |
| 13 | **Transmission** | | **$ 36.6** | **$ 0.3** | **$ 0.4** | **$ 37.2** | **$ 29.1** | **$ 3.4** | **$ 2.6** | **$ 0.2** | **$ 6.2** | **$ 4.2** | **$ 31.1** | **83%** |
| 14 | | IT OT Telecom Systems & Network | 21.4 | - | 0.0 | 21.4 | 21.4 | 0.4 | - | 0.2 | 0.6 | 0.6 | | |
| 15 | | Transmission Line Rebuild | 7.8 | - | - | 7.8 | 0.8 | 2.9 | 0.1 | 0.0 | 3.0 | 1.0 | | |
| 16 | | Transmission Priority Pole Replacements | 6.9 | - | - | 6.9 | 6.0 | 0.1 | 2.5 | - | 2.6 | 2.6 | | |
| 17 | | Programs <5% of Portfolio Total | 0.5 | 0.3 | 0.4 | 1.1 | 0.9 | 0.0 | - | - | 0.0 | 0.0 | | |
| 18 | **Substations** | | **$ 13.4** | **$ 2.8** | **$ 1.0** | **$ 17.2** | **$ 9.6** | **$ 2.4** | **$ 0.4** | **$ 1.0** | **$ 3.8** | **$ 1.2** | **$ 13.4** | **78%** |
| 19 | | Transmission Substation Rebuilds | 3.6 | 1.1 | 0.4 | 5.0 | 3.1 | 0.9 | 0.2 | - | 1.1 | 0.2 | | |
| 20 | | Distribution Substation Rebuild | 3.8 | 0.2 | - | 3.9 | 2.3 | 0.2 | - | - | 0.2 | 0.1 | | |
| 21 | | Transmission Substation Reliability Improvements | 2.6 | 0.4 | - | 3.0 | - | 0.0 | 0.0 | - | 0.1 | - | | |
| 22 | | Transmission Substation Security | 1.9 | 0.1 | 0.4 | 2.4 | 2.3 | (0.5) | 0.1 | 1.0 | 0.6 | - | | |
| 23 | | Compliance & Studies | 0.9 | 0.5 | 0.3 | 1.7 | 1.5 | 1.7 | 0.1 | 0.0 | 1.8 | 0.9 | | |
| 24 | | Programs <5% of Portfolio Total | 0.6 | 0.6 | - | 1.2 | 0.4 | 0.0 | 0.0 | - | 0.0 | 0.0 | | |
| 25 | **Control Center & Buildings** | | **$ 2.2** | **$ 0.8** | **$ 1.6** | **$ 4.5** | **$ 4.0** | **$ 1.4** | **$ 0.6** | **$ 0.9** | **$ 2.9** | **$ 2.7** | **$ 1.6** | **36%** |
| 26 | | Facilities Development & Implementation | 2.0 | 0.7 | 1.1 | 3.8 | 3.5 | 0.7 | 0.5 | 0.0 | 1.2 | 1.1 | | |
| 27 | | Critical Energy Management System Upgrades | 0.1 | 0.0 | 0.1 | 0.2 | 0.1 | 0.4 | 0.0 | 0.0 | 0.5 | 0.5 | | |
| 28 | | Control Center Construction & Refurbishment | 0.1 | - | - | 0.1 | 0.1 | 0.3 | - | - | 0.3 | 0.3 | | |
| 29 | | Programs <5% of Portfolio Total | - | - | 0.4 | 0.4 | 0.2 | - | - | 0.9 | 0.9 | 0.9 | | |
| 30 | **Enabling** | | **$ 4.1** | **$ 8.0** | **$ 25.3** | **$ 37.4** | **$ 32.2** | **$ 2.6** | **$ 2.2** | **$ 41.8** | **$ 46.6** | **$ 41.8** | **$ (9.2)** | **(25%)** |
| 31 | | Vegetation Management | - | - | 12.5 | 12.5 | 12.5 | - | - | 22.2 | 22.2 | 22.2 | | |
| 32 | | T&D Fleet | 0.2 | 3.5 | 8.5 | 12.3 | 12.3 | 0.0 | - | 7.6 | 7.6 | 7.6 | | |
| 33 | | Capital Programs, PMO & Funding Management Office Setup | 2.9 | 0.1 | - | 3.0 | - | 2.2 | 0.1 | - | 2.2 | - | | |
| 34 | | Tools Repair & Management | - | 2.7 | - | 2.7 | 2.7 | - | 0.1 | - | 0.1 | 0.1 | | |
| 35 | | HSEQ and Technical Training | - | - | 2.5 | 2.5 | 2.5 | - | - | 11.9 | 11.9 | 11.9 | | |
| 36 | | Programs <5% of Portfolio Total | 1.0 | 1.6 | 1.8 | 4.5 | 2.2 | 0.4 | 2.0 | 0.1 | 2.5 | - | | |
| 37 | **Support Services** | | **$ 0.7** | **$ 2.0** | **$ 22.8** | **$ 25.4** | **$ 4.6** | **$ 0.1** | **$ 1.2** | **$ 22.4** | **$ 23.7** | **$ 0.9** | **$ 1.7** | **7%** |
| 38 | | Renewables integration, minigrids and generation studies | - | - | 2.4 | 2.4 | - | - | - | 0.8 | 0.8 | - | | |
| 39 | | HR Programs | - | 0.1 | 15.8 | 15.9 | 0.1 | - | 0.2 | 18.0 | 18.2 | 0.4 | | |
| 40 | | IT OT Asset Management | 0.7 | 0.2 | - | 0.9 | 0.6 | 0.1 | 0.0 | 0.0 | 0.2 | - | | |
| 41 | | Programs <5% of Portfolio Total | - | 1.7 | 4.6 | 6.3 | 3.9 | - | 0.9 | 3.6 | 4.6 | 0.5 | | |
| 42 | **Total** | | **$ 99.2** | **$ 21.0** | **$ 54.3** | **$ 174.6** | **$ 110.0** | **$ 8.9** | **$ 22.1** | **$ 70.3** | **$ 101.3** | **$ 57.3** | **$ 73.3** | **42%** |

### 3.1.1 Customer Experience

Customer Experience Improvement Program activities are making progress to enhance the customer experience through the Distribution Streetlighting program, the Billing Accuracy and Back Office program, the Standardized Metering and Meter Shop Setup program, and the Advanced Metering Infrastructure (AMI) Implementation program. Please refer to Table 3-1 for a summary of the overall portfolio spending inclusive of the largest programs in the Customer Experience portfolio. This section includes a short description of each program and a program summary outlining the current status for each program in tables 3-2 through 3-5.

#### DISTRIBUTION STREETLIGHTING

This program deals with upgrading and replacing distribution streetlights that are a physical safety hazard and are scheduled for repair or replacement based on their criticality. Along with increasing the number of distribution streetlights in service, this process will also include LED replacements and GIS data entry of all streetlights.

**Table 3-2. Distribution Streetlighting Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$80.0** | **$12.0** | **$3.3** | **$8.7** | **72%** | **Key Activities**<br>• Completed streetlight assessments for five municipalities.<br>• Updating functionality for geospatial software applications to support performance and tracking of repairs.<br>• Enhanced standards being developed and refined to comply with federal funding requirements.<br>• Minimal non-urgent streetlights repair completed in Q2 as LUMA procures FEMA compliant contracts.<br>**Variance**<br>• The total spend for this program is lower than anticipated because minimal repairs were completed in Q2 as LUMA procures FEMA compliant construction contracts.<br>• Variance for non-federally funded costs includes critical non-federal funded streetlight repairs completed in Q1 but were inadvertently classified as federally funded.<br>**Timeline**<br>• Continue to be on track for achieving SRP milestones. |
| Federally Funded | $80.0 | $12.0 | ($2.7) | $14.7 | | |
| Non-Federally Funded | - | - | $6.0 | ($6.0) | | |
| OpEx | - | - | - | - | | |
| SRP | $25.0 | $3.8 | $3.3 | $0.4 | | |

## BILLING ACCURACY AND BACK OFFICE

This program includes updates to bill print and delivery and other back-office systems to improve accuracy and timeliness of customer invoices. This upgrade includes acquisition of new hardware and software to support billing and customer contracts, along with removing redundant bill printing and enveloping equipment.

**Table 3-3. Billing Accuracy and Back Office Program Summary ($ in millions)**

| | FY 2022 | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$14.6** | **$2.2** | **$4.0** | **($1.9)** | **(85%)** | **Key Activities**<br>• Improvement made to Oracle CC&B user access to enable error resolution, removal of non-functional automated alerts, and closure of over 1 million redundant work queues (errors/alerts).<br>• Corrected account data on all customer types, with a focus on large commercial/industrial accounts, to enable more efficient billing.<br>• Developed initial dashboard for back-office service order processing.<br>• Began centralization of work order process to improve efficiency and response time.<br>• Received approval from the Energy Bureau for LUMA's new bill, defined business requirements, implemented system changes with developers and completed testing for new bill design.<br>**Variance**<br>• Variance mainly due to additional activity to ensure smooth transition to outsourced bill print and delivery.<br>• Activities to assess security, control and reporting configuration issues in Oracle CC&B identified during the first quarter took significantly more effort to address. This process is foundational for developing billing accuracy improvement.<br>**Timeline**<br>• On track to achieve roll out of the new LUMA bill and removal of old equipment by Q4 of FY22. |
| Federally Funded | - | - | $0.0 | $0.0 | | |
| Non-Federally Funded | $1.4 | $0.2 | $0.4 | ($0.2) | | |
| OpEx | $13.2 | $2.0 | $3.6 | ($1.6) | | |
| SRP | $5.0 | $0.8 | $0.0 | $0.8 | | |

## STANDARDIZED METERING AND METER SHOP SETUP

This program to re-establish meter shop and test equipment is targeted at establishing a location for standardized meter testing and the provision of appropriate internal and external meter testing equipment. Enhanced procedures are also included, along with operational support for the new facility and equipment.

**Table 3-4. Standardized Metering and Meter Shop Setup Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$6.3** | **$0.9** | **$0.2** | **$0.7** | **77%** | **Key Activities**<br>• Tested 5,328 AMR meters that had been returned from the field due to various malfunctions and recycled 3,002 AMR meters.<br>• Calibrated nine meter shop meter testing instruments and 57 field meter testing instruments.<br>• Conducted training for 90 Operations Meter Technicians and Meter Shop Employees.<br>• Developed in/out meter inventory spreadsheets for meter shop work management.<br>**Variance**<br>• OpEx costs higher during quarter due to high volume of testing but will not continue at the same rate for the remainder of FY22.<br>• Non-federally funded variance mainly due to contract re-negotiations taking longer than anticipated with third party providing meter testing services.<br>**Timeline**<br>• On track to establish meter shop building and purchase test equipment in Q4. |
| Federally Funded | $0.3 | $0.0 | - | $0.0 | | |
| Non-Federally Funded | $5.7 | $0.9 | $0.0 | $0.8 | | |
| OpEx | $0.3 | $0.0 | $0.2 | ($0.2) | | |
| SRP | $5.9 | $0.9 | $0.0 | $0.9 | | |

## AMI IMPLEMENTATION

The AMI implementation program establishes two-way remote meter reading reporting and control capabilities. Such programs enable a broad range of capabilities that result in cost savings to the utility, as well as customer satisfaction, reliability, and resiliency improvements.

**Table 3-5. AMI Implementation Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$6.1** | **$0.9** | **$0.0** | **$0.9** | **98%** | **Key Activities**<br>• Continued to pursue federal funding for program and waiting determination of the award from the Department of Housing and Urban Development (HUD) Community Development Block Grant Disaster Recovery (CDBG-DR) program.<br>• Developing automated meter infrastructure (AMI) preliminary installation plan.<br>• Developing cost analysis for implementation.<br>**Variance**<br>• Variance is mainly due to a reduced amount of work as LUMA awaits determination of the HUD and CDBG-DR awards.<br>**Timeline**<br>• Not an SRP program. |
| Federally Funded | - | - | $0.0 | ($0.0) | | |
| Non-Federally Funded | $4.1 | $0.6 | - | $0.6 | | |
| OpEx | $2.0 | $0.3 | - | $0.3 | | |
| SRP | - | - | $0.0 | $0.0 | | |

### 3.1.2 Distribution

The Distribution portfolio focuses on improving the low voltage system through Distribution Line Rebuild, Distribution Pole and Conductor Repair, Distribution Automation, and Distribution Line Inspections. Please refer to Table 3-1 for a summary of the overall portfolio spending inclusive of the material programs in the Distribution portfolio. This section includes a short description of each program and a program summary outlining the status for each program in tables 3-6 through 3-9.

#### DISTRIBUTION LINE REBUILD

This program replaces damaged or ineffective overhead and underground distribution lines by performing distribution line upgrades to improve reliability and resiliency, restoring out of service circuits, completing unfinished circuit construction presently abandoned, performing circuit voltage conversions to improve distribution capacity, building new distribution line extensions to connect new customers, and installing underground cable and/or tree wiring to improve service reliability and resiliency to critical customers.

**Table 3-6. Distribution Line Rebuild Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$87.2** | **$13.1** | **$1.4** | **$11.7** | **89%** | **Key Activities**<br>• Completed environmental desktop reviews for 150 distribution feeders.<br>• Advanced preliminary engineering on multiple projects within this program.<br>• Developed task order SOWs to assign work on an additional 145 feeders to A&E firms.<br>• Continued procurement effort for additional A&E capacity.<br>**Variance**<br>• Variance mainly due to engineering activities delayed versus budget as LUMA completes procurement process for FEMA-compliant engineering services.<br>**Timeline**<br>• No expected variance in milestones. |
| Federally Funded | $81.7 | $12.3 | $1.1 | $11.2 | | |
| Non-Federally Funded | $5.5 | $0.8 | $0.3 | $0.5 | | |
| OpEx | - | - | - | $0.0 | | |
| SRP | $55.5 | $8.3 | $1.1 | $7.2 | | |

## DISTRIBUTION POLE & CONDUCTOR REPAIR

This program focuses on minimizing the safety hazard caused by distribution poles and conductors that need to be repaired or replaced. Major repairs and replacement will be based upon the results of an inspection of the distribution system and an analysis by engineers. Following this process, safety hazard and priority poles will be replaced, along with damaged conductor and hardware.

**Table 3-7. Distribution Pole & Conductor Repair Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$85.1** | **$12.8** | **$7.7** | **$5.1** | **40%** | **Key Activities**<br>• Completed critical pole replacements on two feeders.<br>• Completed engineering design and work packages for approximately 75 feeders.<br>• Prepared detailed SOW for 3 feeder groupings for FEMA's review (4-6 feeders per grouping).<br>• Continued procurement effort for FEMA eligible construction contractors.<br>• Oficina de Gerencia de Permisos (OGPe) Administrative Order granted in response to request by LUMA which will assist in expediting local permitting process.<br>**Variance**<br>• Construction execution has been delayed versus budget as LUMA procures FEMA eligible construction contractors.<br>**Timeline**<br>• No expected variance in milestones. |
| Federally Funded | $85.1 | $12.8 | $0.2 | $12.6 | | |
| Non-Federally Funded | - | - | $7.4 | ($7.4) | | |
| OpEx | - | - | $0.1 | ($0.1) | | |
| SRP | $85.1 | $12.8 | $1.8 | $11.0 | | |

## DISTRIBUTION AUTOMATION

This program focuses on establishing equipment for distribution automation. This includes the installation of voltage and VAR controls on feeders to improve power quality and reduce losses, along with the installation of intelligent switches and reclosers on select feeders (including main line and feeder ties) to reduce the number of customer interruptions per outage occurrence.

**Table 3-8. Distribution Automation Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$38.9** | **$5.8** | **$0.1** | **$5.8** | **99%** | **Key Activities**<br>• Developing distribution automation activities to be included in task order SOWs for A&E.<br>• Procurement initiated for the standalone Recloser Installation program.<br>**Variance**<br>• Minimal costs are incurred until receipt of distribution automation equipment, which is expected in Q4 of FY 2022.<br>**Timeline**<br>• Not an SRP program. |
| Federally Funded | $12.7 | $1.9 | $0.1 | $1.8 | | |
| Non-Federally Funded | $26.0 | $3.9 | $0.0 | $3.9 | | |
| OpEx | $0.3 | $0.0 | - | $0.0 | | |
| SRP | - | - | $0.0 | ($0.0) | | |

## DISTRIBUTION LINES INSPECTION

This program is targeted at the inspection, testing and studying of distribution lines, along with required spot repairs and replacements. Distribution line inspections will first be prioritized by worst performing feeder and highest criticality with the initial assessment focusing on the identification of SRP items.

**Table 3-9. Distribution Lines Inspection Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$25.3** | **$3.8** | **$0.3** | **$3.5** | **93%** | **Key Activities**<br>• Performed High-Level Assessment (HLA) on 86 distribution feeders.<br>• Started formal assessment program on underground distribution lines, reviewing 16 underground distribution failures.<br>• Implemented the engineering design process for repairing underground cable failures, making repairs to 15 cables during Q2.<br>• Continued processing HLA results and developing initial Work Order Packages.<br>**Variance**<br>• Variance is mainly due to longer delays in issuing the Preliminary Engineering Data Collection (PEDC) RFP, currently targeted to start during second half of FY2022.<br>**Timeline**<br>• No anticipated variance in achieving milestones. |
| Federally Funded | $19.7 | $3.0 | $0.3 | $2.7 | | |
| Non-Federally Funded | $3.8 | $0.6 | $0.0 | $0.6 | | |
| OpEx | $1.8 | $0.3 | $0.0 | $0.3 | | |
| SRP | $25.3 | $3.8 | $0.3 | $3.5 | | |

### 3.1.3 Transmission

The Transmission portfolio focuses on improving system recovery, resilience, and transformation through the IT OT Telecom Systems and Network program, the Transmission Line Rebuild program, and the Transmission Priority Replacements program. Please refer to Table 3-1 for a summary of the overall portfolio spending inclusive of the largest programs in the Transmission portfolio. This section includes a short description of each program and a program summary outlining the status for each program in tables 3-10 through 3-12.

#### IT OT TELECOM SYSTEMS & NETWORK

This program includes IT and OT telecom investments to improve and revamp the mobile radio system, phone exchange and telephone systems and fiber optic and microwave data radio systems. These systems are used to carry all T&D system IT and OT data. Capability enhancements will include improved first responder and emergency response communication, greater resilience of the internal telecommunications network, an enhanced microfiber network and network control center to improve centralized monitoring and control over facilities and IT traffic.

**Table 3-10. IT OT Telecom Systems & Network Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$134.7** | **$21.4** | **$0.6** | **$20.8** | **97%** | **Key Activities**<br>• Completed initial SOW for the Field Area Network (FAN) project and submitted to the Energy Bureau for approval in Q3.<br>• Started developing technical specifications for Land Mobile Radio (LMR), microwave, towers and infrastructure, and Multiprotocol Label Switching (MPLS).<br>• For MPLS developed design templates for substations and independent power producers to interconnect to transport network and started to finalize the designs for network architecture.<br>**Variance**<br>• Variance is mainly due to time required for LUMA to define and finalize the planning phase of the program which is taking longer than anticipated.<br>**Timeline**<br>• No expected variance in milestones. |
| Federally Funded | $134.6 | $21.4 | $0.4 | $21.0 | | |
| Non-Federally Funded | - | - | - | - | | |
| OpEx | $0.1 | $0.0 | $0.2 | ($0.2) | | |
| SRP | $134.7 | $21.4 | $0.6 | $20.8 | | |

## TRANSMISSION LINE REBUILD

This program focuses on hardening and upgrading 230 kV, 115 kV and 38 kV transmission lines, rebuilding towers, reinforcing, and replacing anchors and guys, investigating to mitigate corrosion, and restoring line design capacity, and rebuilding the 115 kV underground cable in the San Juan area.

**Table 3-11. Transmission Line Rebuild Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$52.0** | **$7.8** | **$3.0** | **$4.8** | **62%** | **Key Activities**<br>• Advanced preliminary engineering for 17 transmission line rebuild projects and the development of scopes of work for 21 additional transmission line rebuild projects.<br>• Supported procurement process for engineering services.<br>• 11 initial SOWs and Level 5 Cost Estimates were submitted to the PREB on October 4, 2021 and approved by the PREB on October 18, 2021.<br>**Variance**<br>• Variance mainly due to engineering activities delayed versus budget as LUMA completes procurement process for FEMA-compliant engineering services.<br>**Timeline**<br>• No expected variance in achieving program milestones. |
| Federally Funded | $52.0 | $7.8 | $2.9 | $4.9 | | |
| Non-Federally Funded | - | - | $0.1 | ($0.1) | | |
| OpEx | - | - | $0.0 | ($0.0) | | |
| SRP | $5.0 | $0.8 | $1.0 | ($0.2) | | |

## TRANSMISSION PRIORITY POLE REPLACEMENTS

This program includes activities to replace damaged overhead transmission poles and towers, along with associated hardware and conductors.

**Table 3-12. Transmission Priority Pole Replacements Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$46.1** | **$6.9** | **$2.6** | **$4.3** | **63%** | **Key Activities**<br>• Completed engineering for pilot project on line 50500 located at Mora Transmission Center.<br>• Developed RFP for construction services.<br>• Developed work order package for line 2200 and commenced preliminary engineering.<br>**Variance**<br>• Variance is mainly due to data analysis, engineering and standards reviews required for project scope definition taking longer than anticipated and the time to procure new FEMA-eligible engineering and construction contracts.<br>**Timeline**<br>• No expected variance in achieving program milestones. |
| Federally Funded | $46.1 | $6.9 | $0.1 | $6.8 | | |
| Non-Federally Funded | - | - | $2.5 | ($2.5) | | |
| OpEx | - | - | - | - | | |
| SRP | $40.0 | $6.0 | $2.6 | $3.4 | | |

### 3.1.4 Substation

The Substation portfolio aims to significantly improve system resiliency and safety while rebuilding, hardening, and modernizing substations through the Transmission Substation Rebuilds program, the Distribution Substation Rebuild program, the Transmission Substation Reliability Improvements program, the Transmission Substation Security program, and the Compliance and Studies program. Please refer to Table 3-1 for a summary of the overall portfolio spending inclusive of the largest programs in the Substation portfolio. This section includes a short description of each program and a program summary outlining the status for each program in tables 3-13 through 3-17.

#### TRANSMISSION SUBSTATION REBUILDS

This program covers required inspection, repair and rebuilding of damaged substations while making upgrades to meet the latest codes, industry standards and practices to improve long term reliability.

**Table 3-13. Transmission Substation Rebuilds Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$33.6** | **$5.0** | **$1.1** | **$3.9** | **78%** | **Key Activities**<br>• Continued environmental desktop reviews for substations.<br>• Advanced preliminary engineering for 12 substation rebuild projects.<br>• Submitted one detailed SOW for the Cataño substation for FEMA review.<br>• Completed high level assessments for 103 substations.<br>• Nine initial SOWs and Level 5 cost estimates were submitted to the PREB on October 4, 2021 and approved by the PREB on October 18, 2021.<br>• Advanced procurement of construction services for the minor substation repairs program.<br>• Completed task order SOWs for substation minor repairs program.<br>**Variance**<br>• Variance is mainly due to engineering activities being delayed versus budget as LUMA completes procurement process for FEMA-compliant engineering services.<br>**Timeline**<br>• On track to complete substation high level assessments earlier than expected. |
| Federally Funded | $24.0 | $3.6 | $0.9 | $2.7 | | |
| Non-Federally Funded | $7.0 | $1.1 | $0.2 | $0.9 | | |
| OpEx | $2.6 | $0.4 | $0.0 | $0.4 | | |
| SRP | $20.6 | $3.1 | $0.2 | $2.9 | | |

## DISTRIBUTION SUBSTATION REBUILDS

This program focuses on improvements to distribution substations as a means to strengthen the distribution grid. This includes hardening and modernizing distribution substations, upgrades to the latest codes, industry standards and practices and the replacement of electromechanical and electronic relays.

**Table 3-14. Distribution Substation Rebuilds Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$26.0** | **$3.9** | **$0.2** | **$3.7** | **95%** | **Key Activities**<br>• Continued environmental desktop reviews for distribution substations.<br>• Advanced preliminary engineering for two substation rebuilds.<br>• 17 Initial SOWs and Level 5 Cost Estimates were submitted to the PREB on October 4, 2021 and approved by the PREB on October 18, 2021.<br>• Advanced procurement of construction services for the substation minor repairs program.<br>• Completed task order SOWs for substation minor repairs program.<br>**Variance**<br>• Variance is mainly due to engineering activities delayed versus budget as LUMA completes procurement process for FEMA-compliant engineering services.<br>**Timeline**<br>• No expected variance in milestones. |
| Federally Funded | $25.0 | $3.8 | $0.2 | $3.6 | | |
| Non-Federally Funded | $1.0 | $0.2 | $0.0 | $0.2 | | |
| OpEx | - | - | - | - | | |
| SRP | $15.0 | $2.3 | $0.1 | $2.2 | | |

## TRANSMISSION SUBSTATION RELIABILITY IMPROVEMENTS

This program (Transmission Substation Reliability Improvements) covers upgrades and reinforcement to the existing and aging system infrastructure to improve system reliability. This includes upgrades to 230 kV and 115 kV electrical system backbones and the 38 kV sub-transmission system. This includes the replacement of transformers, oil circuit breakers and other high voltage equipment, Alternating Current / Direct Current (AC/DC) systems and standby generators, along with protection and control upgrades.

**Table 3-15. Transmission Substation Reliability Improvements Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$19.8** | **$3.0** | **$0.1** | **$2.9** | **97%** | **Key Activities**<br>• Continued to plan the replacement of aging high voltage infrastructure such as transformers, circuit breakers, and other high voltage equipment that are deemed end of life and have poor condition assessment ratings.<br>• Started procurement process for several priority transformers and a Master Service Agreement for breakers.<br>• Continued with restoration/replacement of out-of-service equipment that could be completed during initial assessments.<br>**Variance**<br>• Variance is mainly due to material and equipment specification (aligned with industry codes and standards) and procurement (aligned with federal procurement standards) taking longer than anticipated.<br>**Timeline**<br>• Not an SRP program. |
| Federally Funded | $17.0 | $2.6 | $0.0 | $2.5 | | |
| Non-Federally Funded | $2.8 | $0.4 | $0.0 | $0.4 | | |
| OpEx | - | - | - | - | | |
| SRP | - | $0.0 | $0.0 | $0.0 | | |

## TRANSMISSION SUBSTATION SECURITY

This program will focus on a variety of security concerns at transmission substations. The program will replace and add new security technology and hardware to deter, detect and delay security incidents (e.g., intrusion, theft, damage, employee and public safety). Security concerns addressed by this program include fencing and gates including locking devices, lighting, signage, perimeter cleanup and window bars.

**Table 3-16. Transmission Substation Security Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$16.1** | **$2.4** | **$0.6** | **$1.8** | **74%** | **Key Activities**<br>• On October 4, 2021, the initial SOW for fences and gates was submitted to the Energy Bureau and received approval on October 18, 2021.<br>• Submitted five initial SOWs to FEMA to request grant number on November 24, 2021 and received FAASt number in December.<br>• Developing task order SOW for A&E.<br>• Developing RFP document for construction services.<br>• 1,000 padlocks were purchased and 500 were delivered and installed.<br>• Cleared vegetation and applied initial bare ground treatment at various substation sites to enhance Physical Security.<br>**Variance**<br>• Variance in federally funded costs is mainly due to extended approval processes to obtain federal funding.<br>• Variance in OpEx due to additional Vegetation Management activities relating to Physical Security being conducted earlier than anticipated.<br>**Timeline**<br>• Prioritization of sites initially estimated to be completed in Q2 and was completed in Q1.<br>• No expected variance on other milestones. |
| Federally Funded | $12.9 | $1.9 | ($0.5) | $2.4 | | |
| Non-Federally Funded | $0.6 | $0.1 | $0.1 | $0.0 | | |
| OpEx | $2.6 | $0.4 | $1.0 | ($0.6) | | |
| SRP | $15.2 | $2.3 | $0.0 | $2.3 | | |

## COMPLIANCE & STUDIES

This program consists of distribution studies focused on eliminating major cascading outages caused by a lack of proper coordination of protective devices; implementing new procedures and standards to ensure the distribution system complies with regulations and Prudent Utility Practice; and studies, procedures and standards for substations and transmission compliance.

**Table 3-17. Compliance & Studies Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$11.3** | **$1.7** | **$1.8** | **($0.1)** | **(7%)** | **Key Activities**<br>• Wide area protection coordination review completed for 230kv lines, 115kv review in progress and 38kv model validation underway.<br>• Created distribution coordination and fusing criteria study guidelines and standards. Developing strategy to identify coordination issues at feeders.<br>• Developed functional specification, conceptual single line diagrams, and protection and metering diagrams for 13 out of 44 substation projects.<br>• Reliability analyses completed for 50 distribution feeders and for the 230/115kV systems (addressing ''load of risk'' and historical reliability results).<br>**Variance**<br>• Variance is mainly due to additional effort in advancing studies, procedures and standards in support of federally funded and non-federally project work.<br>**Timeline**<br>• No major variance in milestones. Distribution studies have started in Q2 as anticipated, but soil resistivity testing will be delayed into FY 2023. |
| Federally Funded | $6.3 | $0.9 | $1.7 | ($0.8) | | |
| Non-Federally Funded | $3.3 | $0.5 | $0.1 | $0.4 | | |
| OpEx | $1.7 | $0.3 | $0.0 | $0.2 | | |
| SRP | $10.0 | $1.5 | $0.9 | $0.6 | | |

### 3.1.5 Control Center and Buildings

The Control Center and Buildings portfolio focuses on building necessary infrastructure to deliver economic and reliable energy and to meet applicable laws and regulations through the Facilities Development and Implementation program, the Critical Energy Management System Upgrades program, and the Control Center Construction and Refurbishment program. Please refer to Table 3-1 for a summary of the overall portfolio spending inclusive of the largest programs in the Control Center and Buildings portfolio. This section includes a short description of each program and a program summary outlining the status for each program in tables 3-18 through 3-20.

#### FACILITIES DEVELOPMENT & IMPLEMENTATION

This program is focused on construction required to remediate facilities and real property (e.g., warehouses, mechanic shops, etc.) damaged by natural disasters, implementation of facility capital improvements and an asset management system for facility maintenance, deployment of security devices and systems, development and implementation of facility safety training programs, and the delineation of GridCo and GenCo facilities.

**Table 3-18. Facilities Development & Implementation Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$16.3** | **$3.8** | **$1.2** | **$2.6** | **68%** | **Key Activities**<br>• Developed corporate seating plans, master stacking plan, and evacuation maps.<br>• Approved finalized construction RFPs and ordered furniture for two regional contact centers.<br>• Released RFPs for generator repairs and maintenance and building A&E services.<br>• Finalized interior and exterior rebranding for all of LUMA's customer experience offices across Puerto Rico.<br>• Received PREB approval for eight initial SOWs on October 14, 2021.<br>**Variance**<br>• Variance is mainly due to the procurement process for A&E firms taking longer than anticipated.<br>**Timeline**<br>• No expected variance in milestones. |
| Federally Funded | $7.8 | $2.0 | $0.7 | $1.3 | | |
| Non-Federally Funded | $3.0 | $0.7 | $0.5 | $0.2 | | |
| OpEx | $5.4 | $1.1 | $0.0 | $1.1 | | |
| SRP | $14.8 | $3.5 | $1.1 | $2.4 | | |

## CRITICAL ENERGY MANAGEMENT SYSTEM UPGRADES

The Emergency Management System (EMS) is a computer-based system that is used by operators to monitor, control, and optimize the performance on the generation and T&D system. This program will replace an obsolete and unsupported EMS and add relevant technology to operate the electric system safely and reliably.

**Table 3-19. Critical Energy Management System Upgrades Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$1.0** | **$0.2** | **$0.5** | **($0.3)** | **(175%)** | **Key Activities**<br>• Received FEMA FAASt number.<br>• Completed development of EMS RFP and supporting documents.<br>• Released the RFP on December 3, 2021.<br>**Variance**<br>• Variance is mainly due to the accelerated EMS implementation schedule to address the critical need for replacing the EMS.<br>**Timeline**<br>• No expected variance in milestones. |
| Federally Funded | $0.5 | $0.1 | $0.4 | ($0.4) | | |
| Non-Federally Funded | $0.2 | $0.0 | $0.0 | ($0.0) | | |
| OpEx | $0.3 | $0.1 | $0.0 | $0.1 | | |
| SRP | $0.7 | $0.1 | $0.5 | ($0.3) | | |

## CONTROL CENTER CONSTRUCTION & REFURBISHMENT

This program is targeted at construction or refurbishment of buildings to house the main and back-up control centers and all ancillary support services.

**Table 3-20. Control Center Construction & Refurbishment Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$1.0** | **$0.1** | **$0.3** | **($0.2)** | **(116%)** | **Key Activities**<br>• An A&E services RFP was issued in October 2021 and procurement continued through Q2.<br>• Prepared reports documenting the site requirements and location criteria used to identify the preferred sites.<br>• Completed required due diligence investigations including environmental assessments and topographical surveys for targeted sites.<br>• The project requirements were refined to enhance the definition of the control room configurations, staffing spaces, IT OT support spaces, respite and common staff support spaces, and the mission critical building system spaces.<br>• A FEMA FAASt number was assigned for the new primary and secondary control centers.<br>**Variance**<br>• Variance is mainly due to the accelerated EMS implementation schedule to address the critical need to advance this program.<br>**Timeline**<br>• No expected variance in milestones. |
| Federally Funded | $1.0 | $0.1 | $0.3 | ($0.2) | | |
| Non-Federally Funded | - | - | - | - | | |
| OpEx | - | - | - | - | | |
| SRP | $1.0 | $0.1 | $0.3 | ($0.2) | | |

### 3.1.6 Enabling

The Enabling portfolio of investment projects focuses on safety and operational excellence through the Vegetation Management program; the T&D Fleet program; the Capital Programs, PMO, and Funding Management Office Setup program; the Tools Repair and Management program; and the Health, Safety, Environmental, Quality (HSEQ) and Technical Training program. Please refer to Table 3-1 for a summary of the overall portfolio spending inclusive of the largest programs in the Enabling portfolio. This section includes a short description of each program and a program summary outlining the status for each program in tables 3-21 through 3-25.

#### VEGETATION MANAGEMENT

This program includes work to abate or mitigate immediate vegetation risk in the most critical locations, along with an ongoing program to clear and re-establish ROWs to standard widths. This includes immediate response for the highest risk sites (those that pose hazards to public safety or routinely experience tree-caused service interruptions) and reclaiming right-of-way corridors (especially those impacting the T&D systems).

**Table 3-21. Vegetation Management Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$50.0** | **$12.5** | **$22.2** | **($9.7)** | **(78%)** | **Key Activities**<br>• Worked with five vegetation management contractors across the island, totaling ~450 FTE's.<br>• Continued to respond to urgent outage responses, with 80% of resources responding to urgent requests and closing 1,127 work orders.<br>• Continued rapid response and corrective phase for transmission and distribution resulting from aerial flights, reliability issues, customer requests, and public safety requests.<br>• Developed and initiated substation vegetation control program.<br>• Established new vegetation management contract with specialized firm and began mobilization to the island.<br>**Variance**<br>• Variance is mainly due to more intensive and an increased number of rapid response activities to address unplanned outages were required than originally contemplated in the first six months of the Vegetation Management Plan.<br>• Approximately $2 million of Q1 costs were booked in Q2.<br>**Timeline**<br>• No expected variance in milestones. |
| Federally Funded | - | - | - | - | | |
| Non-Federally Funded | - | - | - | - | | |
| OpEx | $50.0 | $12.5 | $22.2 | ($9.7) | | |
| SRP | $50.0 | $12.5 | $22.2 | ($9.7) | | |

## T&D FLEET

The T&D Fleet program includes a range of activities and investments to bring the current vehicle, aircraft, and equipment fleet up to industry standards and is focused on initializing and improving processes for data collection, repair, and maintenance of these assets.

**Table 3-22. T&D Fleet Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$48.4** | **$12.3** | **$7.6** | **$4.7** | **38%** | **Key Activities**<br>• Continued with the inspections and repairs of units required to bring them into compliance with USDOT, OSHA, and ANSI.<br>  ○ 625 heavy units were certified to DOT-396.17, and<br>  ○ 450 specialized units were certified to ANSI A92.2.<br>• 16 repair and maintenance facilities were put into operation and continued the process of upgrading the facilities to meet industry standards.<br>• Bids for light units were evaluated.<br>• Certified all mechanics as DOT Section 396 inspectors and started training 40 mechanics in maintenance and repair of aerial units.<br>• Identified 178 fleet units previously unaccounted for, reducing the number of unaccounted vehicles to 686.<br>• Increased the percent of vehicles in service by 20% since commencement to 86%.<br>**Variance**<br>• Variance is mainly due to the procurement process taking longer than anticipated.<br>**Timeline**<br>• On track to meet compliance requirements under Puerto Rico's Department of Transportation and Public Works (DTOP), Public Service Commission (CSP), USDOT & OSHA Standards. |
| Federally Funded | $1.6 | $0.2 | $0.0 | $0.2 | | |
| Non-Federally Funded | $23.6 | $3.5 | $0.0 | $3.5 | | |
| OpEx | $23.2 | $8.5 | $7.6 | $0.9 | | |
| SRP | $48.4 | $12.3 | $7.6 | $4.7 | | |

## CAPITAL PROGRAMS, PMO & FUNDING MANAGEMENT OFFICE SETUP

This program includes the activities to create a dedicated Capital Programs department to manage the large number of capital improvement projects to be undertaken. The Capital Programs department includes an overall Project Management office responsible for the implementation of necessary project management governance for LUMA.

**Table 3-23. Capital Programs, PMO & Funding Management Office Setup Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$11.8** | **$3.0** | **$2.2** | **$0.7** | **25%** | **Key Activities**<br>• Undertook grant management and issue resolution activities in support of federally funded projects as required including for: (i) 428 Permanent Assistance, 406 Hazard Mitigation and EHP related project work to ensure FEMA conformance; (ii) procurement & contracting reviews in accordance with LUMA's Procurement Manual; and (iii) federal funding reimbursements.<br>• Continued to implement core PMO processes for managing capital projects. Including processes, procedures, tools, templates and governance training plan, syllabus, and manuals to implement tools for project portfolio management, scheduling, cost control, contract administration and reporting).<br>• Continued recruitment for the Project Management Office and undertook training activities as required.<br>**Variance**<br>• Variance is mainly due to lower than expected federally funded projects being advanced to the detailed phase of work.<br>**Timeline**<br>• Not an SRP program. |
| Federally Funded | $11.5 | $2.9 | $2.2 | $0.7 | | |
| Non-Federally Funded | $0.3 | $0.1 | $0.1 | $0.0 | | |
| OpEx | - | - | - | - | | |
| SRP | - | - | - | - | | |

## TOOLS REPAIR & MANAGEMENT

This program focuses on a PPE and tooling plan to address safety needs along with putting in place a better system for managing PPE and tools. In addition to acquiring the needed PPE and tools, this program includes implementation of a centralized Tool and Equipment Crib system to improve inventory management, tool maintenance, tool supply and coordination and oversight of tool and equipment use.

**Table 3-24. Tools Repair & Management Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$10.9** | **$2.7** | **$0.1** | **$2.6** | **95%** | **Key Activities**<br>• Inventoried 20% of the tools that will comprise our tool crib.<br>• Purchased required personal protective equipment to support current field staffing levels.<br>• Continued to address critical tool inventory gaps (Hot-sticks, rubber goods, grill, presses, ground chains, etc.) through purchases.<br>• Completed supplier set up and commissioned Caguas testing lab.<br>• Dielectrically tested critical tool inventory gaps.<br>**Variance**<br>Variance is mainly due to a significant amount of the tool purchases necessary for the safe and reliable operations of the T&D system were purchased in Q1 rather than throughout the year.<br>**Timeline**<br>• No expected variance in milestones. |
| Federally Funded | - | - | - | - | | |
| Non-Federally Funded | $10.9 | $2.7 | $0.1 | $2.6 | | |
| OpEx | - | - | - | - | | |
| SRP | $10.9 | $2.7 | $0.1 | $2.6 | | |

## HSEQ AND TECHNICAL TRAINING

This program provides HSEQ and technical training to field personnel. Personnel will gain technical skills training for field employees to become fully qualified to complete their work safely and efficiently. Enhanced training modules will be developed and administered based on operational needs for the type of technology being implemented and could include areas such as operation of smart grids, work on energized lines (e.g., hot line and barehand programs), splicing of conductors and helicopter work for transmission repairs. This program will help to instill a new safety culture across the T&D System, thus reducing safety incidents, bringing the T&D System into compliance with contract standards (including but not limited to OSHA and broader industry standards) and improving overall employee efficiency.

**Table 3-25. HSEQ and Technical Training Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$9.9** | **$2.5** | **$11.9** | **($9.4)** | **(384%)** | **Key Activities**<br>• Commenced skill upskilling and Utility Lineworkers programs with the LUMA College.<br>• Continued with on-the-job mentorship with experienced, temporary workers to further develop field crews.<br>• Continued safety and technical training by offering over 50 courses in Q2 focused on First Aid/CPR, Incident Investigation, Confined Space Entry, and Electrical System Safety.<br>**Variance**<br>• Variance is mainly due to significantly more training required than anticipated to support the operations of the electrical system. This included development and implementation of an apprenticeship/upskilling program, conducting required and essential safety training, on-the-job mentoring, and delivering upskilling programs at LUMA College.<br>**Timeline**<br>• On-going training assessments will be required to determine whether the overall timeline to achieve the remediated state in Q4 of FY 2025 will require adjustment.<br>• LUMA apprenticeship program was launched in Q2 with 21 lineworkers.<br>• LUMA pre-apprenticeship program was launched in Q2. |
| Federally Funded | - | - | - | - | | |
| Non-Federally Funded | - | - | - | - | | |
| OpEx | $9.9 | $2.5 | $11.9 | ($9.4) | | |
| SRP | $9.9 | $2.5 | $11.9 | ($9.4) | | |

### 3.1.7 Support Services

The Support Services portfolio supports the overall successful operation of the utility through various programs including the HR Program; the Renewables Integration, Minigrids and Generation Studies program, and the IT OT Asset Management program. Please refer to Table 3-1 for a summary of the overall portfolio spending inclusive of the largest programs in the Support Services portfolio. This section includes a short description of each program and a program summary outlining the status for each program in tables 3-26 through 3-28.

#### HR PROGRAMS

This program includes human resources activities to implement an employee benefit program, an employee engagement strategy, a core compliance training and human capital management software.

**Table 3-26. HR Programs Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$63.5** | **$15.9** | **$18.2** | **($2.3)** | **(15%)** | **Key Activities**<br>• Onboarded 266 new employees.<br>• Companywide training activities continued to be conducted including performance, leadership and job-specific training activities.<br>• Kicked off a project to improve user experience for candidates, recruiters, and hiring managers, as well as improve data quality across all systems.<br>• Conducted flu vaccination tour at seven sites serving 388 employees.<br>• Hosted three virtual educational meetings on LUMA's wellness program.<br>• LUMA's 401(k) PR Retirement Savings Plan was approved by the PR Treasury Department (Hacienda).<br>**Variance**<br>• OpEx variance is mainly due to increased training requirements.<br>• SRP variance due to advancements of core compliance training activities into Q1 to meet training needs.<br>**Timeline**<br>• No expected variance in milestones. |
| Federally Funded | - | - | - | - | | |
| Non-Federally Funded | $0.3 | $0.1 | $0.2 | ($0.1) | | |
| OpEx | $63.3 | $15.8 | $18.0 | ($2.2) | | |
| SRP | $0.5 | $0.1 | $0.4 | ($0.3) | | |

## RENEWABLES INTEGRATION, MINIGRIDS AND GENERATION STUDIES

This program involves completing technical studies to inform generation and system planning to support compliance with the IRP requirements related to renewable integration, minigrids, energy efficiency and generation. The activities conducted in this program will lead to a coordinated, data-driven approach to the energy transition.

**Table 3-27. Renewables Integration, Minigrids and Generation Studies Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$9.7** | **$2.4** | **$0.8** | **$1.7** | **68%** | **Key Activities**<br>• Provided support to the Energy Bureau in the development of the PR Cost Test.<br>• Advanced foundational work for Demand Response program planning<br>• Developed an RFQ / RFP for an IRP consultant and submitted it to the Energy Bureau for review and approval.<br>• Collaborated with NREL, DOE and PREB Liaison for the Offshore Wind Study Program.<br>• Performed quarterly update of the Hosting Capacity map.<br>**Variance**<br>• Variance is mainly due to delayed issuance of Energy Efficiency regulation and timelines around Energy Efficiency and Demand Response program planning deliverables.<br>• Variance also due to the DOE funding the Offshore Wind Study instead of LUMA.<br>**Timeline**<br>• Not an SRP program. |
| Federally Funded | - | - | - | - | | |
| Non-Federally Funded | - | - | - | - | | |
| OpEx | $9.7 | $2.4 | $0.8 | $1.7 | | |
| SRP | - | - | - | - | | |

## IT OT ASSET MANAGEMENT

LUMA will introduce industry standard IT OT asset management procedures and provide the necessary system upgrades to ensure secure business operation and continuity, as well as improved customer responsiveness. The scope of the program includes assessing the application and infrastructure portfolio and beginning a series of software and infrastructure upgrades that drive toward a transition to cloud-based technology. IT OT resilience in this program also extends to the establishment of a new backup data center to ensure reliability and resilience of technology systems.

**Table 3-28. IT OT Asset Management Program Summary ($ in millions)**

| | FY 2022 Budget | Q2 Budget | Q2 Actuals | Q2 Variance ($) | Q2 Variance (%) | Status |
|---|---|---|---|---|---|---|
| **Program Total** | **$5.5** | **$0.9** | **$0.2** | **$0.7** | **81%** | **Key Activities**<br>• Completed automation of map migration process from G/Technology to Outage Management System (OMS) reducing manual effort and process duration.<br>• Provided customers with visibility to load shedding activities through a real time load shedding map.<br>• Supported consolidating control centers.<br>• Developed requirements for RTU replacements contract.<br>• Completed the evaluation and selection process for consulting services to support disaster recovery work.<br>**Variance**<br>• Variance is mainly due to the timing of the execution of work with the selected IT vendor and the procurement of remote terminal units for priority substations. Both workstreams are advancing and program is on track to meet the overall program budget.<br>**Timeline**<br>• No expected variance in milestones. |
| Federally Funded | $4.3 | $0.7 | $0.1 | $0.5 | | |
| Non-Federally Funded | $1.1 | $0.2 | $0.0 | $0.2 | | |
| OpEx | $0.1 | $0.0 | $0.0 | ($0.0) | | |
| SRP | $4.0 | $0.6 | $0.0 | $0.6 | | |

# 4.0 Federal Funding Activity

## 4.1 Summary of Activity

As noted above, many of the Improvement Programs have begun federal funding activities. Please refer to the tables included in Section 3.0 for updates on the activities completed as part of these programs. As part of these efforts, LUMA concluded the second quarter of fiscal year 2022 having continued to advance the federal funding work with focus on (i) FEMA processes and acceptance; (ii) preliminary engineering efforts; and (iii) preparatory activities for future work – both from an engineering perspective and construction preparedness perspective.

As reported during the first quarter report, LUMA has established strong working relationships with COR3 and FEMA including the FEMA Environmental and Historic Preservation (EHP) and 406 Hazard Mitigation (406HM) teams. This collaborative working relationship continued throughout the reporting period and focused on further establishing the necessary basis of understanding to satisfy FEMA procedural requirements. A few examples of such procedural related activities undertaken during the second quarter include:

- LUMA developed strategies for additional hazard mitigation under FEMA's 406HM for distribution, transmission, substation and streetlights projects and presented to COR3 and FEMA for feedback and alignment. These strategies are meant to establish a common understanding between the parties and streamline the determination of 406HM eligible work.
- LUMA's Environmental, Land, and Permitting teams developed a process in consultation with FEMA's EHP group for the review and authorization of environmental, geotechnical, and engineering studies required for projects. This work included submitting an EHP checklist and the receipt of feedback as part of the submittal of the detailed SOW for the Cataño Modernization and Hardening project to COR3 and FEMA.
- In conjunction with FEMA, LUMA engaged state and federal agencies including the Department of Natural Resources (DRNA), Fish and Wildlife Services (FWS), State Historic Preservation Office (SHPO) and Corps of Engineers (USACE) to streamline project review and consultation processes.

The activities noted above are foundational in nature and are fundamental to the critical infrastructure work to be conducted in the months and years to come. As can be inferred from the above, many of the processes and concepts being established are new to FEMA and require careful deliberation. These have and will require time to finalize and will require on-going collaboration between COR3, FEMA and LUMA as we collectively navigate the complexities of the T&D work being undertaken. As was referenced in the first quarter report, the activities captured here as well as preliminary engineering work were expected to have been advanced prior to LUMA's June 2021 commencement date. The inaction during the first five months of 2021 created a significant impact on the anticipated FY2022 results which were developed in the fall 2020. As a result, LUMA FY2022 federally funded expenditures will be substantially lower than the original budget.

This said, LUMA's current plan remains as expressed in its June, September and December FEMA 90-day plan update presentations with anticipation of federally approved construction activities to begin in Q4 of FY2022. This construction will involve relatively targeted projects that will constitute the beginning of more significant construction being undertaken over time. For example, the FY2022 Q4 construction will

include vital programs such as streetlight repairs, critical distribution pole repair, and minor substation repair.

To achieve the above noted results, LUMA completed the following activities during the second quarter (in addition to advancing the procedural matters noted above):

- We advanced project work towards finalizing detailed SOWs for submission to COR3 and FEMA. This effort involved working with LUMA's A&E firms and resolving numerous issues in the absence of technical drawings and reliable data and resulted in field assessment being undertaken to support the development of said detailed SOWs. This effort also included 406HM and EHP development work.
- In October, LUMA submitted the detailed SOW (including 406HM & EHP requirements) for the Cataño Modernization and Hardening project to COR3 and FEMA followed by ongoing discussions with COR3/FEMA to work through key project details – all of which will help facilitate future project submissions and execution. This submission remains under review by FEMA in collaboration with the LUMA team.
- To increase the engineering capacity to support the federally funded workload, LUMA issued an A&E Request for Proposal (RFP) seeking additional A&E resources. During Q2, LUMA undertook the evaluation of the A&E firms that responded to the RFP with award anticipated in early calendar year 2022. In order to expedite work upon award, LUMA's engineering team prepared several task orders during the quarter to be provided to A&E firms once contracted. Similar work was undertaken for distribution construction services, and streetlight construction services in anticipation of construction activities in Q4 of FY22.
- Undertook individual meetings with each municipality to provide insight into the progress of the federal funding work to date. During the reporting period, LUMA visited 43 municipalities and have since concluded a total of 72 of 78 meetings.
- LUMA also continued to work on potential opportunities for additional funding afforded by the Community Development Block Grant (CDBG-DR) Program. In September 2021, LUMA proposed four key projects for the Puerto Rico Department of Housing's (PRDOH) consideration which represents ~$900M. LUMA has remained involved in the ensuing review process and these projects were included in the PRDOH's draft Disaster Recovery Action Plan for public consultations. Of the four projects, three projects were included in PRDOH's submission to HUD in January 2022 and LUMA awaits the final recommendation before we can proceed with developing a scope of work for PREB review and approval and a subsequent submission to PRDOH and HUD for final approval.

The work captured above has resulted in the following progress as of the end of the second quarter:

1. 132 Projects/Programs initial SOWs representing an estimated $7.4 billion in reconstruction work that are being advanced within LUMA.
2. PREB has approved all the 132 Projects/Programs initial SOWs including approving 46 Projects/Programs initial SOWs approved during the quarter representing $0.8 billion in reconstruction activities.

   *(Note that the Programs initial SOWs presented are being divided into multiple Projects. An example is the Streetlight Program initial SOWs presented to PREB was for the entirety of Puerto Rico; however, this Program will be divided into 78 Projects representing each Municipality. This approach was taken to simplify the initiation of the work with PREB; and to expedite the approval and execution of the work with FEMA).*

3. Upon receiving PREB approval, LUMA seeks the review and establishment of FAASt Project numbers from FEMA for each Project submitted by LUMA.
   *(As noted above, the submissions to FEMA at this stage are by Project only. (i.e., Programs approved by PREB are subdivided into smaller Projects to ensure the expedient approval of work from FEMA.))*
   At the end of Q2, LUMA had sought a total of 164 FEMA FAASt Project numbers representing $4.3 billion in reconstruction activities. Of these, LUMA received 163 FEMA FAASt Project numbers representing $4.2 billion.
   *(Note that LUMA will be seeking additional FEMA FAASt Project numbers as it further divides and defines Programs into individual Projects.)*
4. Upon receiving the FEMA FAAST number, the work enters the preliminary engineering development phase. Of the 163 projects noted above, 66 projects representing ~$0.9 billion were advanced in the quarter and are at various stages of preliminary engineering development. The remaining projects will be awarded to A&E firms upon the conclusion of the A&E RFP noted earlier.
5. Of the 66 projects noted above, LUMA submitted the one detailed SOW (i.e., the Cataño Modernization and Hardening Project) to COR3/FEMA for approval.

Table 4-1 below outlines the aggregated status of all planned federally funded projects and their respective estimated value.

### 4.1.1 Status of Federal Funded Projects as of December 31st, 2021

**Table 4-1. Project Status Summary ($ in billions)**

| Project Status | Number of Projects | Estimated Amount |
|---|---|---|
| Initial SOWs (Projects/Programs) Under Development<br>(Note: This represents upcoming Projects/Programs not captured in the overall $7.4B of work in the pipeline) | 3 | $0.4 |
| Projects/Programs Pending PREB Approval | 0 | $0.0 |
| Projects submitted to FEMA and awaiting FEMA FAASt Project number | 1 | $0.04 |
| Projects yet to be defined/developed from approved Programs [(1)] | n.a. [(1)] | $3.24 |
| Projects with FEMA FAASt Project number and in the preliminary engineering phase (i.e., pre-detailed SOW submission) – Unassigned | 97 | $3.15 |
| Projects with FEMA FAASt Project number and in the preliminary engineering phase (i.e., pre-detailed SOW submission) – Assigned | 65 | $0.98 |
| Submission of Detailed Scope of Work to FEMA enabling detailed engineering and construction | 1 | $0.03 |
| **Total** | **164** | **$7.44** |

[(1)] A Total of 12 initial SOWs approved by PREB are deemed as Programs that will be divided into multiple Projects over time (as noted in the main text). The Programs include Streetlights, Substation Minor Repairs, Distribution Poles Replacements, Two Way Land Mobile

Radio Network, Telecom Infrastructure, Microwave PTP, Physical Security, SCADA Remote Access and RTU Replacements, Fiber Optic Replacement, Transmission 38kV Pole Replacement, Transmission 115kV Pole Replacement, and Transmission 230kV Pole Replacement.

Table 4-2 below outlines federal funding by source and status submitted for reimbursement as of December 31, 2021.

**Table 4-2. Federal Funding Status Summary ($ in millions)**

| Funding Source | Federal Funds Applied for to Date | Federal Funds Applied for this Quarter | Federal Funds Received to date |
|---|---|---|---|
| Public Assistance 428 | $2.2 | $2.2 | - |
| Hazard Mitigation 406 | - | - | - |
| **Total** | **$2.2** | **$2.2** | **-** |

# 5.0 Shared Services

In accordance with the T&D OMA, LUMA provides certain administrative and operational services to PREPA in connection with the operation and management of the legacy generation assets and their production of electricity. These services are collectively known as Shared Services and are governed by the Shared Services Agreement (SSA) between PREPA, P3 Authority and LUMA effective June 1, 2021. The purpose of these services is to enable PREPA Generation to continue independent operation during the period, also known as the Shared Services Period, after LUMA began operation of the T&D system but before and during a transition period when the planned independent operator ($) assumes responsibility and control of the legacy assets. Under the SSA LUMA began after Commencement providing PREPA with services that generally fall into three (3) areas:

- T&D Operations – This is limited to technical O&M support for certain electrical equipment under the responsibility of PREPA at generation plant locations but that were historically supported by its Substation and Lines departments (now LUMA). This O&M is focused on the power transformers, relays, and electrical protection and control devices that function on the PREPA side of the demarcation of plant responsibilities. This O&M work is specified by PREPA but performed by LUMA.
- Information Technology – This support operates and maintains the existing common IT OT infrastructure that serves both PREPA and LUMA. Examples include the overall enterprise software applications, computer and communications networks, IT security, etc.
- Finance and Accounting – This includes numerous general accounting activities (e.g., Accounts Payable, Property and Plant Accounting, General Ledger activities, Treasury activities, etc.) and the placement of common insurance policies.

The specific scope, estimated labor resources, and estimated annual budget for the Shared Service are presented in the SSA. The annual Shared Services 2021-2022 budget was estimated at $54.7 million; 91.2% of this budget ($49.9 million) is Generation's share of allocated common costs for non-labor items such as joint insurance policies and shared common IT/OT software. and infrastructure. The balance, $4.8 million (or 8.8%), is the budgeted LUMA labor cost to provide the services.

Note: the SSA and related budget was finalized after the submission and approval of LUMA's Initial Budgets. The revised (lower) final Shared Services budget presented here reflects the decision that PREPA would continue to perform certain services for itself (independent of LUMA) that were assumed to be included in Shared Services when the budget was created in late 2020. The change (reduction) in shared services is shown as the Revised Budget below. The amounts budgeted corresponding for these reduced services are offset by an equal and corresponding increase in PREPA's overall budget reflecting that PREPA continues to perform these activities.

The costs for the Shared Services activities are not included within LUMA's quarterly report and are considered part of Generation Pass-Through Expenditures incurred by PREPA. The budgeted costs were reviewed in the FY2022 budget by P3 Authority, and subsequently by PREB as part of NEPR-MI-2021-0004. Under the SSA, the Shared Services will be provided on an interim basis, for up to three years, until up to six months after PREPA has transferred O&M responsibility for its legacy generation fleet to an independent Generation Operator(s), or earlier if they are terminated or reduced at PREPA's discretion.

LUMA as part of performing this work is providing the information below.

**Table 5-1. Shared Services ($ millions)**

| | Approved FY 2022 Budget | Revised FY 2022 Budget | Revised Q2 Budget | Q2 Actuals | Variance ($) | Variance (%) |
|---|---|---|---|---|---|---|
| Labor | 12.5 | 4.8 | 1.2 | 0.7 | 0.5 | |
| Property & Casualty Insurance | 40.5 | 41.5 | 10.4 | 12.0 | (1.6) | |
| Security | 10.0 | - | - | - | - | |
| IT Service Agreements | 7.5 | 7.6 | 1.9 | 1.9 | 0.0 | |
| Utilities & Rents | 3.6 | - | - | - | - | |
| Other | 4.0 | 0.8 | 0.2 | - | 0.2 | |
| **Subtotal** | **$78.0** | **$54.7** | **$13.7** | **$14.6** | **($0.9)** | **(7%)** |
| 2% Reserve for Excess Expenditures | 1.6 | 1.1 | 0.3 | - | 0.3 | |
| **Shared Services Total** | **$79.6** | **$55.8** | **$14.0** | **$14.6** | **($0.6)** | **(4%)** |

Shared Services expenses are presented within the approved Generation Budget. Any revision of the Shared Services total identifies whether LUMA or PREPA is performing these activities but does not impact the approved Generation Budget nor customer rates. The above information represents only the expenses for Shared Service activities that are strictly defined activities consistent with the SSA; importantly, any incidental expenses incurred by LUMA related to administering and developing the PREPA-LUMA interface as the organizations implement the T&D OMA are not considered reimbursed Share Service expenses and therefore are part of LUMA's O&M in the post commencement era.

LUMA's finance team continues to support the 2019 and 2020 PREPA financial statement audits, as requested by PREPA as well as providing assistance with respect to the settlement of pre-commencement hurricane and earthquake claims.

During Q2 LUMA continued developing and performing the Shared Services activities under the SSA. In addition to performing the specific services LUMA's work included the following noteworthy milestones:

- In Q2 LUMA continued a weekly management meeting with PREPA to identify and communicate Shared Services needs or issues with PREPA and PREPA Generation teams. The new PREPA Generation leadership was integrated into the process as LUMA addressed emergent PREPA Generation concerns or needs (i.e., discuss new requests / topics that are beyond the current scope of the SSA but nevertheless requested by PREPA or points of mutual interest or concern).
- LUMA cleared PREPA's existing pre-Commencement vendor payment processing backlog and integrated payment processing into LUMA's newly streamlined AP processes. LUMA also provided PREPA personnel LUMA points-of-contact to expedite PREPA payment requests and discuss payment topics.
- LUMA further developed the single-point-of-responsibility management role initially established in Q1 for all Generation Shared Services operational activities performed by LUMA for PREPA across all of Puerto Rico. This role is intended to streamline Operations-related communication between PREPA and LUMA, ensured technical personnel availability, and coordinated Shared Services field work with PREPA related to planned and unplanned power plant outage events (especially when requests by PREPA need to be addressed urgently).

- LUMA IT OT, in response to PREPA IT requests, is coordinating with a PREPA-led work prioritization process to support the planning and execution of non-routine and not previously identified PREPA IT initiatives based on PREPA's expressed needs and interests.
- LUMA and PREPA have continued monthly executive-level management meetings initiated in Q1 with the PREPA Deputy Executive Directors and LUMA leaders to identify and address enterprise-level Shared Service needs, issues, and concerns.

**Exhibit 2**

Excel Schedules to be submitted *via* email