Informe trimestral de LUMA Energy

Primer trimestre del año fiscal 2022

1 de julio – 30 de septiembre de 2021

Estamos aquí para cumplir la misión con Puerto Rico

Cuatro meses después de comenzar la histórica alianza público-privada para operar el sistema de T&D en Puerto Rico, LUMA ha emprendido la monumental tarea de reparar los sistemas, acondicionar las instalaciones, eliminar las ineficiencias y generar cambios para beneficio de 1.5 millones de clientes.

LUMA está aquí para reconstruir y transformar el sistema eléctrico de Puerto Rico tras años de escasez de fondos, falta de mantenimiento y un deterioro exacerbado por una serie de huracanes y terremotos devastadores. Nosotros administramos y operamos activos de transmisión y distribución del gobierno bajo un contrato a largo plazo supervisado por la Autoridad de Alianzas Público Privadas (AAPP). Este informe resume nuestras actividades claves para el primer trimestre del año fiscal 2022, del 1 de julio al 30 de septiembre de 2021. LUMA se centró en obtener el control de los activos, instalaciones y procesos, abrir canales de comunicación para los clientes, estabilizar la red eléctrica e iniciar la formación, adiestramientos y la introducción de procesos mejorados para cumplir los objetivos del servicio público.

Priorizar la seguridad

Estamos facilitando a nuestros trabajadores las herramientas, el equipo y el adiestramiento necesarios para que sean eficaces sin descuidar su seguridad. Ya estamos viendo una mejoría del 70% en métricas de seguridad.

Reconstrucción y solidez del sistema

Estamos reparando los activos más críticos de la red. Impulsamos proyectos de capital financiados con fondos federales y recibimos aprobaciones regulatorias para miles de millones en labores necesarias.

Mejorar la satisfacción del cliente

En aras de convertirnos en una empresa de servicio público centrada en el cliente, establecimos métodos nuevos para escuchar y responder a los clientes, con un servicio telefónico y en persona mejorado y una nueva aplicación para teléfonos móviles.

Excelencia operacional

Ampliamos nuestro personal capacitado, inauguramos una universidad de adiestramiento técnico y mejoramos procesos para una mayor eficiencia y transparencia. También instauramos una organización eficaz de manejo de emergencias.

Transformación sostenible

Aumentamos drásticamente las conexiones para instalaciones solares, actualizamos los contadores y creamos nuevas herramientas digitales para los clientes, para facilitar el desarrollo de energías renovables. Sentamos las bases para la modernización de la red y la transformación digital.

La misión para Puerto Rico

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

OBJETIVOS CLAVE

PRIORIZAR LA SEGURIDAD
Reformar las actividades del servicio público 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 servicio público 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

Creado para Puerto Rico
Invertido en Puerto Rico
Escuchando a Puerto Rico

Priorizar la seguridad

LUMA hizo de la seguridad y el adiestramiento enfoques claves y facilitó al personal de campo acceso a herramientas modernas y funcionales, equipo de protección personal y vehículos y equipo pesado que cumplen con las normas de seguridad.

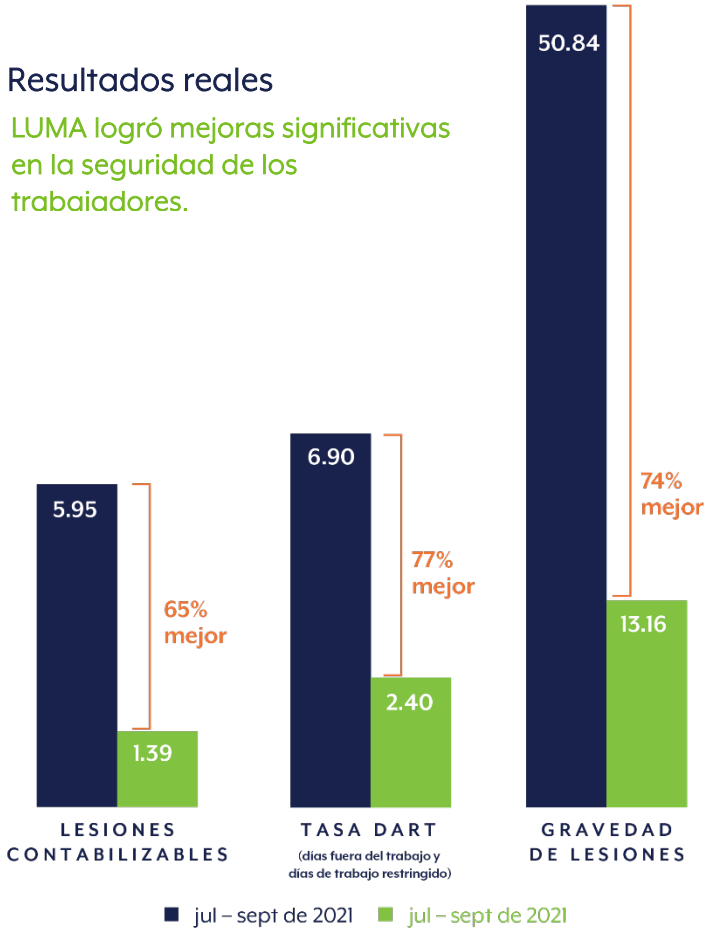
Lo que hicimos

- Llevamos a cabo actividades intensivas de contratación y adiestramiento en seguridad e invertimos en mejorar las destrezas técnicas.
- Proporcionamos mentores capacitados y experimentados en el campo para fomentar prácticas seguras y mejorar las destrezas.
- Establecimos sesiones informativas e inspecciones de seguridad periódicas.
- Desarrollamos un proceso para determinar las causas principales de los incidentes y así poder evitar fallas recurrentes.

La educación al público en materia de seguridad también fue uno de nuestros objetivos. Utilizamos redes sociales, presentamos las mejores prácticas de seguridad eléctrica a los socorristas y participamos en eventos de seguridad pública y manejo de emergencias.

Resultados reales

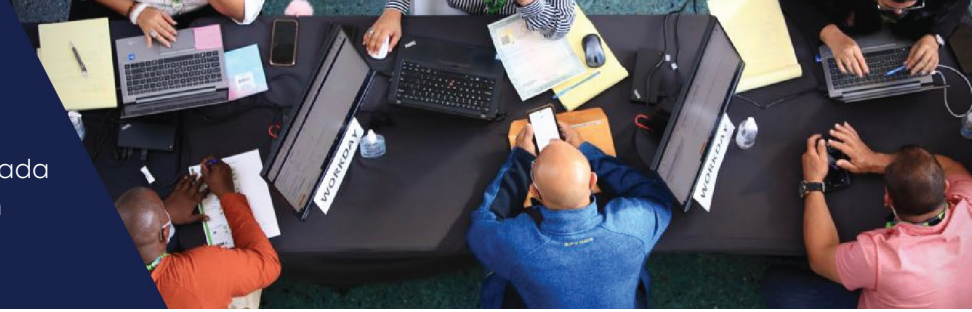
LUMA logró mejoras significativas en la seguridad de los trabaiadores.



La gente primero.
La seguridad siempre.

Mejorar la satisfacción del cliente

LUMA lanzó varios medios de comunicación, centros de servicio al cliente renovados y un sistema de contacto basado en la nube que no limita la entrada de llamadas. Los clientes vieron una reducción en los tiempos de espera y un aumento del 13% en el servicio al cliente en persona.



Lo que hicimos

- Lanzamos un nuevo sitio web, aplicación móvil y canales de redes sociales para brindar a los clientes diversas formas de comunicarse con LUMA y administrar sus cuentas
- Renovamos y reabrimos los 25 centros de servicio al cliente, donde atendimos a 10,000 clientes por día
- Lanzamos un sistema de contacto basado en la nube para recibir todas las llamadas (el sistema anterior limitaba el número de llamadas recibidas).
- Presentamos ante el Negociado de Energía una nueva factura fácil de usar, con mejor información y datos de la cuenta más claros. Nuestro plan es comenzar a utilizar la nueva factura después de enero de 2022, sujeto a las aprobaciones regulatorias finales
- Establecimos un equipo inaugural de Cuentas Clave para atender de manera proactiva a clientes industriales y comerciales y
- proporcionar un solo punto de contacto para los 78 municipios de Puerto Rico
- Realizamos 25,000 llamadas telefónicas a clientes con deudas pendientes para ofrecer planes de pago e información sobre cómo obtener acceso a la asistencia económica disponible a través de programas de fondos de alivio por COVID y otros programas de financiamiento

Resultados reales

- Aumento del 6% en la satisfacción general del cliente y aumento del 13% tanto en el servicio al cliente en persona como en la calidad y confiabilidad de la electricidad (según la puntuación de JD Power CSAT)
- Disminución en los tiempos de espera en los centros de llamadas y por teléfono
- Hemos contestado 3 veces más llamadas que la AEE durante el mismo período en 2020
- Al 30 de septiembre, 564,087 clientes habían registrado una cuenta electrónica Mi LUMA y la aplicación Mi LUMA se había descargado 375,583 veces
- Reducción del tiempo de procesamiento de las facturas de productores independientes de energía (IPP), de 11 días a 6 días, con mejoras de proceso adicionales en curso
- Desde el 1 de junio, hemos conectado aproximadamente a 60 clientes comerciales/industriales de gran escala

Reconstrucción y solidez del sistema

Además de restablecer el servicio tras las interrupciones, LUMA está arreglando la infraestructura para poder evitar estas interrupciones en primer lugar. Esta es una oportunidad única para reconstruir mejor, por lo que LUMA ha iniciado reparaciones esenciales y ha estado colaborando con todos los niveles del gobierno para poder aprovechar al máximo los fondos federales disponibles.

Lo que hicimos

- Aumentamos el trabajo urgente y crítico para abordar el grave atraso heredado y comenzamos a detener el deterioro en la condición de los activos. Esto requirió el apoyo de empleados diestros temporeros y mucho tiempo de trabajo adicional.
- Iniciamos y promovimos los principales proyectos de capital que se ejecutarán bajo varios programas de subvenciones federales.
- Comenzamos la fase preliminar de ingeniería, según los requisitos de FEMA, para que estos programas se pagan con fondos federales, no con el dinero de los clientes
- Respondimos de manera segura a más de 1,000 solicitudes de desganche de las líneas (más de 10 al día) y despejamos la maleza y vegetación en 139 subestaciones.

Resultados reales

REPARACIONES DE INFRAESTRUCTURA

1,067 postes reemplazados
3 veces más que los 378 reemplazados por la AEE durante el mismo periodo el año pasado

27 interruptores de distribución
aproximadamente un interruptor de alta prioridad cada tres días

5 unidades terminales remotas críticas
para mayor visibilidad y control de la subestación una llevaba cinco años sin funcionar

3 subestaciones en San Juan
una había estado fuera de servicio desde 2010

RECUPERACIÓN FINANCIADA POR FEMA

(al 30 de septiembre)

65 proyectos completamente aprobados
que representan $2,800 millones en trabajo de recuperación

67 adicionales bajo revisión del NEPR
que representan $4,600 millones en trabajo de recuperación

LIMPIEZA DE ÁREAS OPERACIONALES

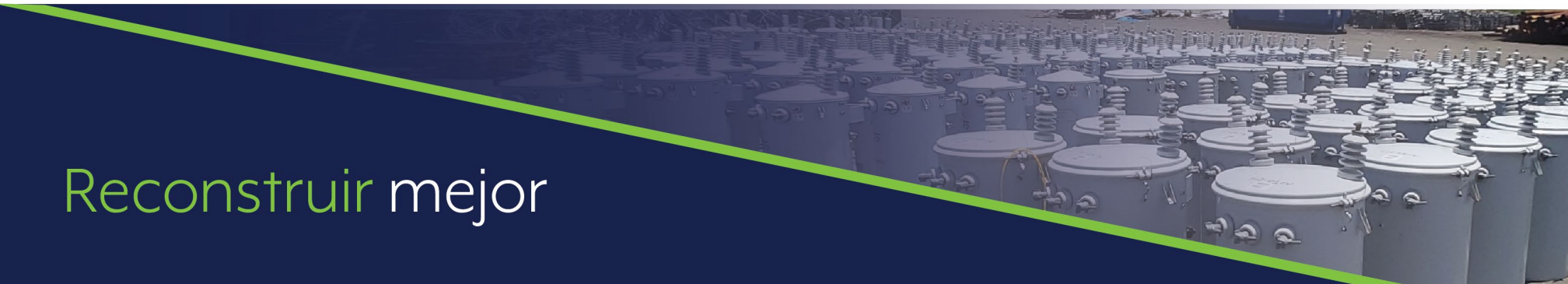
remoción y disposición adecuadas of almost 1 million lbs. of waste left on sites, including

455 000 lbs de chatarra

162 000 lbs de aluminio

35 000 lbs de cobre

42 000 lbs de focos viejos



Reconstruir mejor

Excelencia operacional

Nuestro equipo ahora cuenta con más de 3,000 empleados, muchos de los cuales provienen de la AEE, para servir a Puerto Rico. Nuestras actividades se centraron en capacitar a nuestros empleados para trabajar de manera segura, enfocarse en el cliente y crear un cambio positivo, desde la infraestructura física hasta los procesos comerciales y la cultura organizacional.

Lo que hicimos

- Realizamos más de 1,700 entrevistas.
- Contratamos a un promedio de 175 empleados por mes y ofrecimos más de 25 sesiones de contratación
- Celebramos un convenio colectivo y acuerdo laboral de proyecto con la Hermandad Internacional de Trabajadores Eléctricos (luego de la combinación con la Unión Insular de Trabajadores Industriales y Construcciones Eléctricas — UITICE) para garantizar una fuerza laboral segura y calificada para la recuperación y transformación
- Adiestramos a empleados en los planes integrales de respuesta a emergencias y continuidad de negocio
- Nos asociamos con organizaciones benéficas locales para realizar 7 eventos comunitarios centrados en los niños y la preparación ante los desastres

Resultados reales

- Implementamos con éxito nuestro plan de respuesta a emergencias para tres tormentas nombradas
- Dentro de un plazo de 26 horas, restauramos el servicio a más de 800,000 clientes afectados por un apagón masivo y un incendio en el Centro de Transmisión de Monacillos —un tiempo de respuesta sin precedentes
- Presentamos más de 160 documentaciones reglamentarias y de cumplimiento y representamos a LUMA en 15 conferencias, audiencias y talleres ante el Negociado de Energía

Transformación de energía sostenible

En apoyo al esfuerzo global por frenar el impacto del cambio climático y a las ambiciosas metas de energía renovable en Puerto Rico, LUMA impulsó el crecimiento de la energías renovable.

Lo que hicimos

- Activamos el servicio de medición de energía neta (NEM) para casi 7,500 clientes, que representan más de 35 MW de generación solar distribuida.
- Aumentamos por 7 la rapidez del procesamiento de solicitudes de generación distribuida y completamos casi la mitad del trabajo atrasado que habíamos heredado.
- Lanzamos el primer mapa de capacidad de interconexión digital de Puerto Rico en el sitio web de LUMA para que los clientes que desean conectarse a la generación distribuida tengan la información que necesitan.
- Coordinamos estudios de viabilidad de interconexión de transmisión para 46 proyectos para la Solicitud de Propuestas de Energía Renovable para el Tranche (tramo) 1, bajo la supervisión del Negociado de Energía

Resultados reales

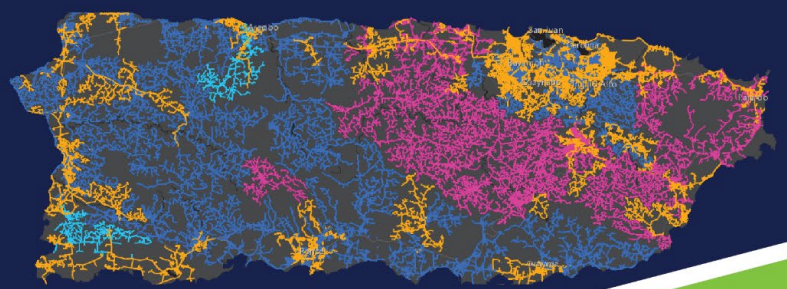
MEDICION DE ENERGIA NETA

7,500 clientes activados **35** MW de generación solar distribuida

procesamos solicitudes 7 veces más rápido que la AEE, y algunas tenían más de dos años de antigüedad

ESTUDIOS DE VIABILIDAD

1,255 MW solar **756** MW almacenamiento en batería



Creando un futuro más sostenible

LUMA se mantiene firme ante los obstáculos

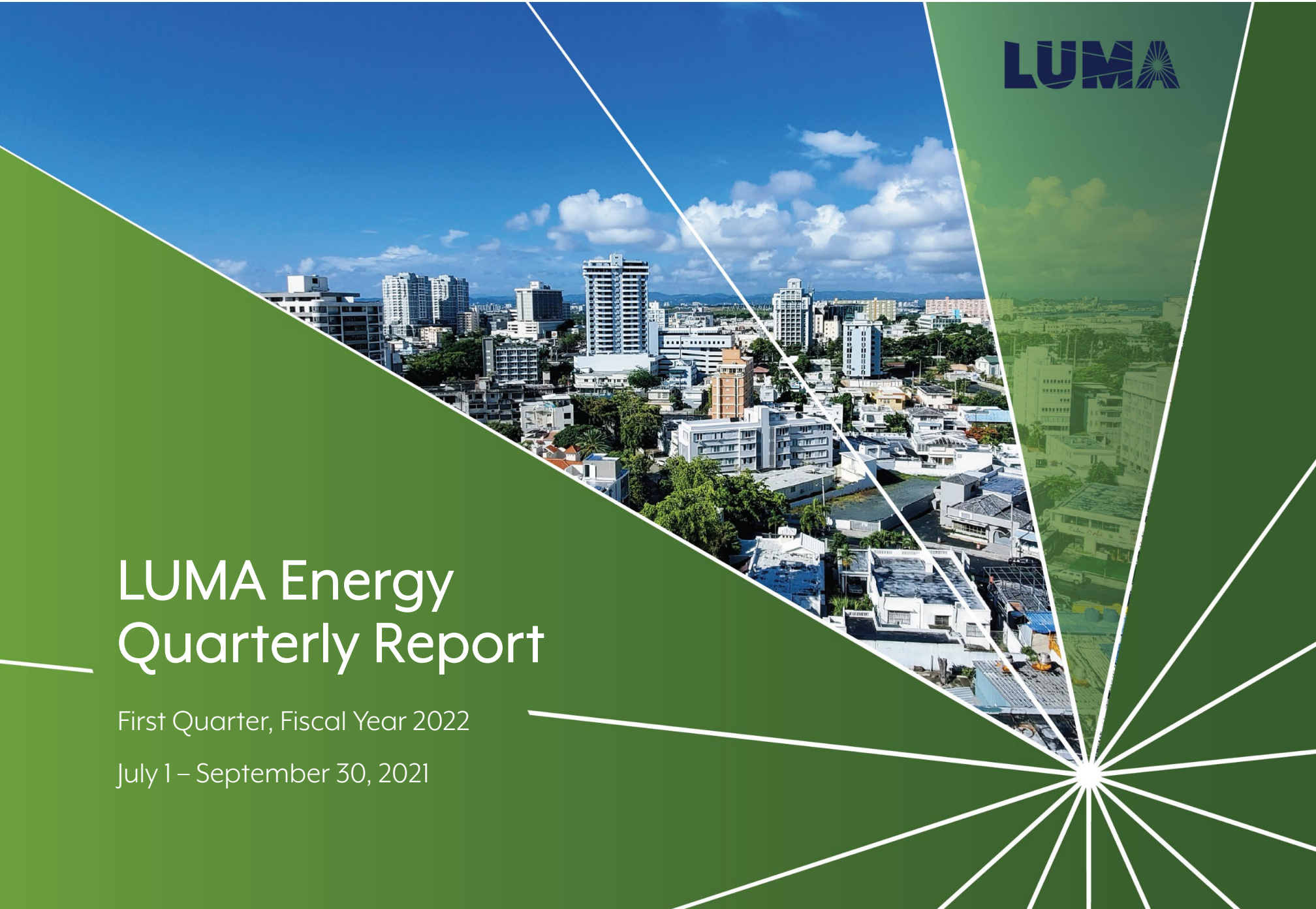
LUMA ha enfrentado varios obstáculos desde sus inicios, pero nos mantenemos firmes. Quienes trabajamos para LUMA estamos muy orgullosos de laborar de la mano con compañeros valientes y dedicados en un esfuerzo inagotable por marcar la diferencia día y a día y mejorar el servicio que brindamos al pueblo de Puerto Rico.

A finales de 2020, LUMA desarrolló un plan de rehabilitación del sistema y presupuestos. La AAPP y el Negociado de Energía de Puerto Rico (NEPR) revisaron y aprobaron estos documentos tras hacer una evaluación rigurosa.1 Desde que desarrollamos nuestros planes, y especialmente desde que comenzamos a operar el sistema eléctrico el 1 de junio de 2021, LUMA ha encontrado deficiencias significativas que van más allá de la información provista. Los déficits graves incluían:

- Varias centenas de activos eléctricos y equipos que no funcionan, incluidas 29 subestaciones, lo que crea una sobrecarga significativa de los circuitos y daña los equipos
- Limitaciones extensas y significativas del centro de llamadas y del sistema de servicio al cliente y de facturación (CC&B, por sus siglas en inglés)
- Operatividad marginal del sistema de manejo de interrupciones
- Falta de documentación de los procesos y procedimientos actuales
- Suministro de energía limitado por parte de la flota de generación que la AEE continúa poseyendo y operando
- Ausentismo de la AEE, lo cual ha provocado una enorme acumulación de trabajo pendiente desde la primavera de 2021, incluidas unas 6,000 facturas sin procesar
- Ningún progreso sustancial en la fase de ingeniería de los proyectos subsidiados por fondos federales
- Adiestramiento técnico y de seguridad insuficiente entre los empleados de campo, lo cual representó un riesgo directo a las operaciones actuales

En el primer día de operaciones, los empleados facilidades de LUMA enfrentaron varias amenazas de seguridad y su acceso a las instalaciones críticas se vio impedido. Cuando finalmente logramos acceder las instalaciones mediante órdenes de protección, LUMA encontró instalaciones inoperantes que necesitaban reparaciones significativas. En respuesta a las amenazas y los bloqueos, LUMA tuvo que proporcionar escoltas de seguridad a los equipos de campo y reorganizar las operaciones.

A pesar de estos numerosos desafíos, LUMA continúa firme en el compromiso de proveer el servicio de electricidad que Puerto Rico merece.



LUMA Energy Quarterly Report

First Quarter, Fiscal Year 2022

July 1 – September 30, 2021

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

Four months into the historic public-private partnership to operate Puerto Rico's T&D system, LUMA has started the monumental task of repairing systems, putting facilities in order, unwinding inefficiencies and seeding change to benefit 1.5 million utility customers.

LUMA is here to rebuild and transform Puerto Rico's electricity system after years of underfunding, 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 by 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 first quarter of Fiscal Year 2022 (July 1 – September 30, 2021). LUMA focused on gaining control of assets, facilities and processes, opening channels of communications for customers, stabilizing the electrical grid and initiating training and introducing improved processes to accomplish utility objectives.

Prioritizing Safety

We're getting workers the tools, equipment and training they need to be effective while staying safe. We're already seeing a 70% improvement in key safety metrics.

System Rebuild & Resiliency

We're repairing the most critical grid assets. We advanced federally funded capital projects and received regulatory approvals for billions in needed work.

Improving Customer Satisfaction

To become a customer-centric utility, we created new paths to listen and respond to customers, with improved phone and in-person service and a new mobile phone application.

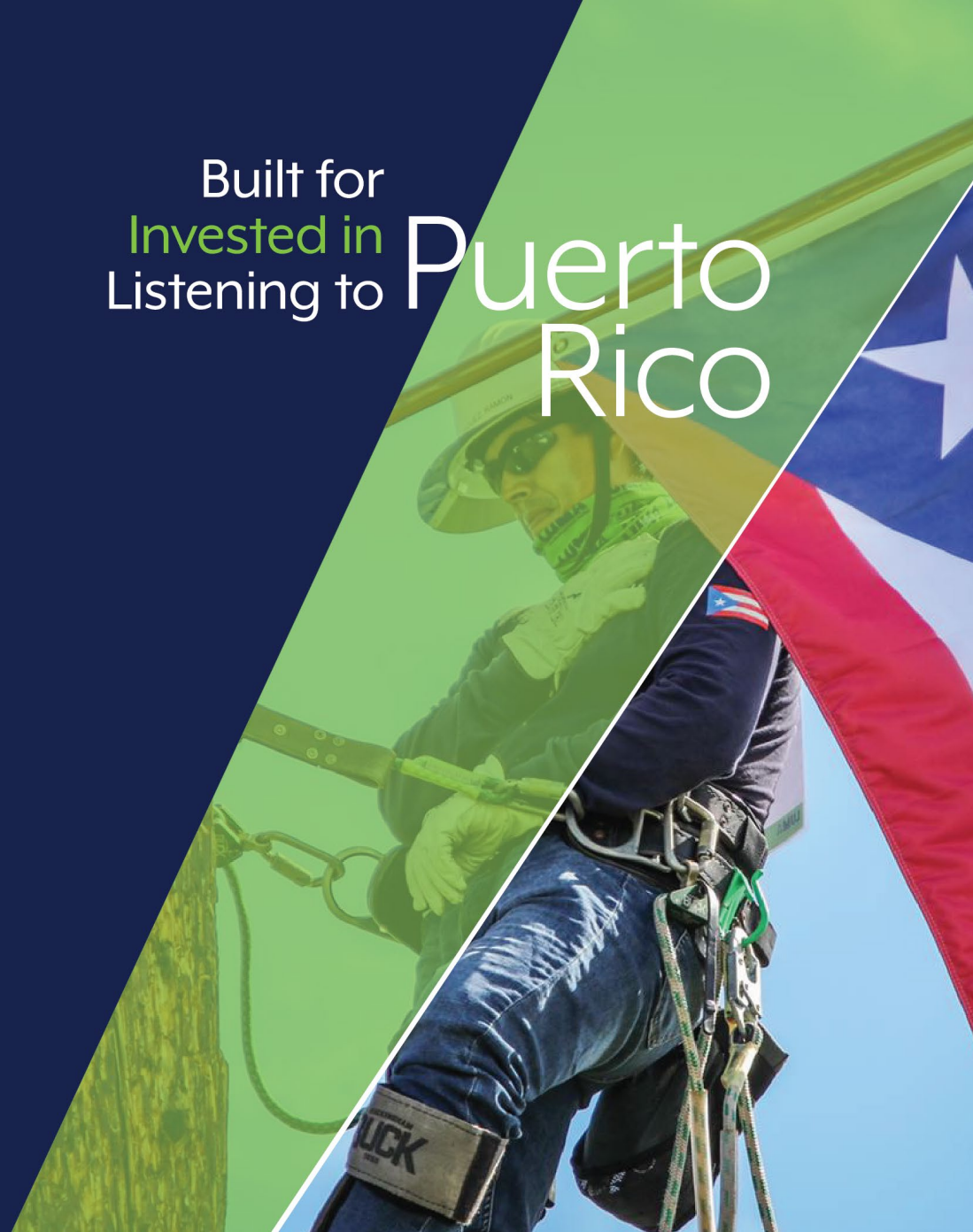
Operational Excellence

We grew our skilled workforce, opened a technical training college and improved processes for efficiency and accountability. We also put in place an effective emergency management organization.

Sustainable Transformation

We dramatically increased solar installation connections, upgraded meters and created new digital tools for customers to develop renewables. We laid the foundation for grid modernization and digital transformation.

Built for
Invested in
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

LUMA made safety and training a key focus and provided field personnel with access to modern functioning tools, personal protective equipment and safety-compliant vehicles and heavy equipment.

What We Did

- Rolled out intensive onboarding and safety training and invested in improving technical skills
- Provided experienced mentors in the field to instill safe practices and upgrade skills
- Established regular safety briefings and inspections
- Developed a process to determine incident root causes so we can better prevent recurring failures

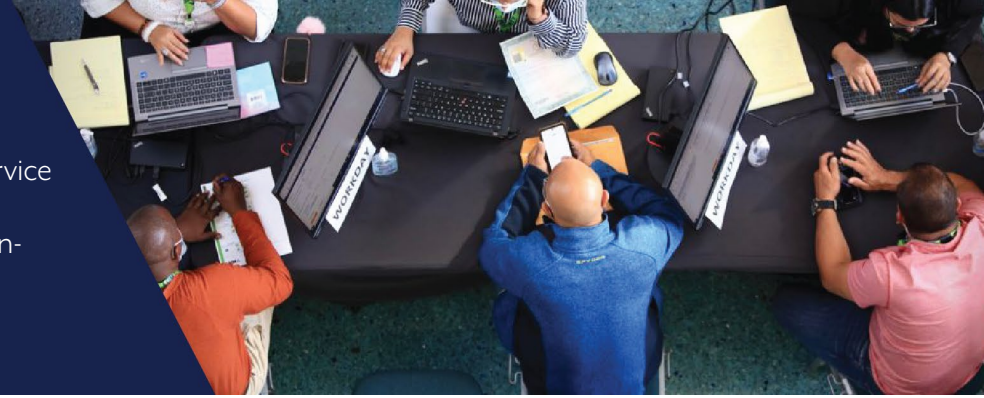
Public safety education was also a focus, using social media, presenting electrical safety best practices to first responders and participating in public safety and emergency management events.

Real Results

LUMA achieved significant improvements in worker safety.

Improve Customer Satisfaction

LUMA launched multiple communication channels, rebranded customer service centers and established a cloud-based contact system that does not limit incoming calls. Customers saw decreased wait times and a 13% increase in in-person customer service.



What We Did

- Launched a new website, mobile app and social media channels, to give customers multiple ways to communicate with LUMA and manage their accounts
- Rebranded and reopened all 25 customer service centers where we served 10,000 customers daily
- Released a cloud-based contact system to receive all calls placed by customers (the previous system limited the number of calls received)
- Submitted a new customer-friendly bill to the Energy Bureau featuring improved information and clearer account data (expect to issue new bill after January 2022, pending final regulatory approvals)
- Introduced a dedicated Key Accounts team to proactively serve industrial and commercial clients and provide a single point of contact to Puerto Rico's 78 municipalities
- Made 25,000 phone calls to customers with outstanding debts, offering payment arrangements and providing information on how to access financial aid available through COVID relief funds and other funding programs

Real Results

- 6% increase in overall customer satisfaction, 13% increases in both in-person customer service and power quality and reliability (as measured by J.D. Power CSAT score)
- Decreased wait times at call centers and by phone
- Answered 3 times more calls than during the same period in 2020
- By end of September, 564,087 customers registered an electronic Mi LUMA account, and the Mi LUMA app was downloaded 375,583 times

System Rebuild & Resiliency

On top of restoring outages, LUMA is fixing infrastructure so we can prevent them in the first place. This is a unique opportunity to build back better, so LUMA has started key repairs and has been collaborating with all levels of government to make the most of the federal funds available.

What We Did

- Increased urgent and critical work to tackle the serious backlog we inherited and begin to arrest the decline in asset condition. This required support from skilled temporary employees and significant overtime.
- Initiated and advanced the major capital projects to be executed under various federal grant programs
- Began preliminary engineering in accordance with FEMA requirements, so these programs are paid by federal funds, not by customers
- Cleared vegetation from lines 1,000+ times (over 10 per day) and cleared 139 substations of weeds and vegetation

Real Results

INFRASTRUCTURE REPAIRS

1,067 poles replaced
3 times more than PREPA's 378 over the same period last year

27 distribution breakers
about one high-priority breaker every three days

5 critical remote terminal units
for substation visibility & control one hadn't worked for five years

3 San Juan substations
one had been out of service since 2010

FEMA-FUNDED RECOVERY

(as of September 30)

65 projects fully approved
representing $2.8 billion in recovery work

67 more reviewed by the PREB
representing $4.6 billion in recovery work

OPERATIONAL AREAS CLEANED

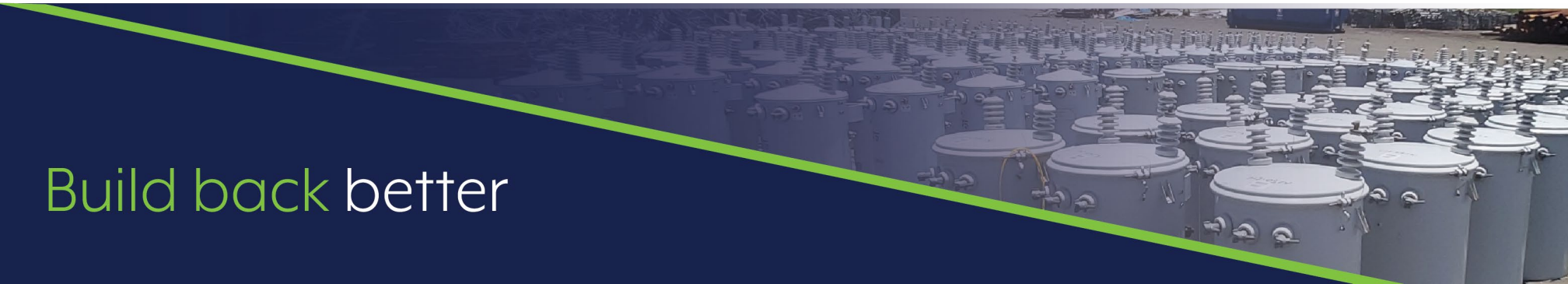
removed and properly disposed of almost 1 million lbs of waste left on sites, including

455,000 lbs scrap metal

162,000 lbs aluminum

35,000 lbs copper

42,000 lbs of old streetlight heads



Build back better

Operational Excellence

Our team now has more than 3,000 employees, many hired from PREPA, serving Puerto Rico. Our activities concentrated on training our employees to work safely, focus on customers and create positive change — from physical infrastructure to business processes to organizational culture.

What We Did

- Conducted more than 1,700 interviews
- Onboarded an average of 175 employees per month and provided over 25 onboarding sessions
- Entered a collective bargaining agreement and project labor agreement with the International Brotherhood of Electrical Workers (after amalgamation with Union Insular de Trabajadores Industriales y Construcciones Eléctricas — UITICE) to ensure a safe, qualified workforce for the recovery and transformation
- Trained employees on comprehensive emergency response and business continuity plans
- Partnered with local charities to hold 7 community events focusing on children and disaster preparedness

Real Results

- Successfully implemented our emergency response plan for three named storms
- Within 26 hours, restored service to over 800,000 customers affected by a major outage and fire at the Monacillos Transmission Center, an unprecedented response time
- Filed 160+ regulatory and compliance submissions and represented LUMA in 15 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

- Activated net energy metering (NEM) service for nearly 7,500 customers representing over 35 MW of distributed solar generation
- Increased distributed generation application processing speed by 7 times and cleared nearly half of the inherited backlog
- Launched Puerto Rico's first digital interconnection capacity map on LUMA's website, so customers who want to connect distributed generation have the information they need
- Coordinated transmission interconnection feasibility studies for 46 projects for the Tranche 1 Renewables Request for Proposals overseen by the Energy Bureau

Real Results

NET ENERGY METERING

7,500 customers activated

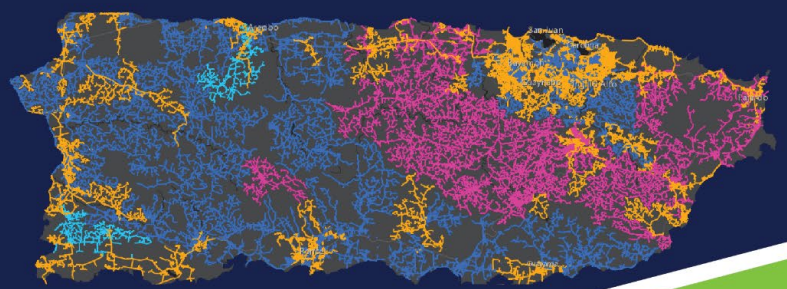
35 MW distributed solar generation

we processed applications 7 times faster than PREPA and some were over two years old

FEASIBILITY STUDIES

1,255 MW solar

756 MW battery storage



Creating a greener future

Undeterred by obstacles

LUMA has faced multiple obstacles since commencement, but we remain undeterred. All of us at LUMA are so proud to work tirelessly alongside our courageous and dedicated colleagues to make a difference each and every day to improve service for the people of Puerto Rico.

In late 2020, LUMA developed a system remediation plan and initial budgets, which the P3 Authority and Puerto Rico Energy Bureau reviewed and approved after thorough review.

Since developing our plans, and especially since starting electric system operations on June 1, 2021, LUMA has found material deficiencies well beyond the information we were provided. Major deficits include:

- Several hundred non-functioning electrical assets and equipment, including 29 substations, creating serious overloading of circuits and damaging equipment
- Broad and significant call center & Customer Care & Billing (CC&B) limitations
- Marginal operability of the outage management system
- A lack of documentation of current processes and procedures
- Limited power supply from the generation fleet that PREPA continues to own and operate
- PREPA absenteeism leading to a massive backlog of uncompleted work since spring 2021, including ~6,000 unprocessed invoices
- No material advancement of engineering on federally funded projects
- Insufficient technical and safety training of field employees that represented a direct danger to current operations

On Day 1, LUMA employees faced multiple security threats and blocked access to critical facilities. When we finally did gain entry through restraining orders, we found damaged and inoperable facilities needing significant repairs. In response to the threats and blockades, LUMA had to provide security escorts to field crews and rearrange operations.

Despite these many challenges, LUMA is still progressing on our mission to deliver the electricity service Puerto Rico deserves.

LUMA Quarterly Report

For the period ending September 30, 2021

November 15, 2021

Foreword

This document presents LUMA's Quarterly Report on operation of the Puerto Rico transmission and distribution system for the first quarter of fiscal year 2022.

All of us who for work for LUMA Energy – 3,000 strong incredible workers many of whom put their lives on the line to upgrade and rebuild Puerto Rico's energy infrastructure – are determined to build a more reliable, more resilient, and cleaner energy system for the people of Puerto Rico. This is our shared mission and our shared goal. 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.

Since beginning operations in June 2021 we've already taken important steps to improve the energy system the Puerto Rican people rely on, including:

- Launched multiple new channels of communication for customers, including a new website, mobile device application and social media channels;
- Reopened all 25 customer service centers located in communities across Puerto Rico and assisted more than 492,000 customers during the quarter;
- Answered a total of 590,985 calls, a 39% increase over PREPA's calls answered from the same period in 2020;
- Improving safety by materially reducing injury rates – a recordable injury rate of 2.40 compared to PREPA baseline of 6.90 and a Severity Rate of 13.16 compared to PREPA baseline of 50.84, representing 65%, and 74% improvements in safety statistics, respectively;
- Activated Net Energy Metering (NEM) service for nearly 7,500 solar customers;
- Replaced approximately 1,070 poles and repaired and energized three substations;
- Put in service 1,200 new or repaired vehicles, fully compliant with transportation and safety requirements for electric utility service;
- Cleared 139 substations of weeds and vegetation, including removal and disposal of approximately 455,000 pounds of scrap metal, 162,000 pounds of aluminum, 35,000 pounds of copper, and 42,000 pounds of old streetlight heads and hundreds of thousands of gallons of trash and debris;
- Secured approval for 65 projects representing $2.8 billion of federal funding;
- Conducted health and safety training for hundreds of new LUMA co-workers; and
- Graduating the first class of Puerto Rico lineworkers from the LUMA College for Technical Training, bringing world-class training and development for the technical trades.

We know that there is more work to do, we are determined to get better every day, and we will continue to work towards positive progress for the people of Puerto Rico.

LUMA'S ROLE

LUMA's service responsibility is focused on providing more reliable, more resilient and clean energy to 1.5 million customers. We carry out comprehensive overall management of the assets comprising the transmission and distribution system (T&D System) and related services. LUMA's other duties are specified in the Transmission and Distribution System Operation and Maintenance Agreement (T&D OMA) executed by the P3 Authority, the Puerto Rico Electric Power Authority (PREPA), LUMA Energy, LLC and its subsidiary LUMA Energy ServCo, LLC (LUMA) and dated as of June 22, 2020. LUMA

provides services as part of a public-private partnership and operates under a Budget for Fiscal Year 2022 and a System Remediation Plan (SRP) that were approved by the P3 Authority and the Puerto Rico Energy Bureau ("PREB" or "the Energy Bureau").

The T&D System remains under government ownership, however LUMA has the sole obligation to provide management, operation, maintenance, repair, restoration and replacement and other related services for the T&D System with the P3 Authority acting as Administrator under the T&D OMA on behalf of the Government of Puerto Rico.

With respect to energy production, LUMA does not own or operate any generation plants. Currently, PREPA owns and currently operates approximately 70% of the Puerto Rico generation fleet. The remainder is owned and operated by private owner-operators.

The Puerto Rico Energy Bureau (PREB, or the Energy Bureau) is the independent regulator over the electric sector in Puerto Rico. LUMA, PREPA and other electric service companies, including independent power companies, are subject to Energy Bureau regulatory oversight. Accordingly, the Fiscal Year 2022 budget was approved by the Energy Bureau as part of LUMA's Initial Budgets in docket NEPR-MI-2021-0004 and the System Remediation Plan was approved by the Energy Bureau in docket NEPR-MI-2020-0019. As part of these two dockets, from February through May of 2021, LUMA submitted more than five thousand pages for the Energy Bureau's review, responded to more than twenty-five requests for information, provided detailed support for the budget and attended seven days of public technical conferences where LUMA representatives responded to further questions from the Energy Bureau and their consultants, and provided more than twenty additional responses to requests made during the technical conferences. The Energy Bureau received public comments in both dockets and the records for the Initial Budgets and the System Remediation Plan are publicly available on the Energy Bureau website.

The Fiscal Year 2022 Budget is the first budget for the Puerto Rico electric system examined by the Energy Bureau. **LUMA's approved budget did not result in any modification, or increase, of the Base Rate as established by the Energy Bureau's 2017 Rate Order**. PREPA and the Government of Puerto Rico are subject to the Puerto Rico Oversight, Management and Economic Stability Act (PROMESA). LUMA's budget was also included in the Financial Oversight and Management Board certified budget for Fiscal Year 2022.

This report complies with LUMA's reporting obligations under the T&D OMA as well as the Energy Bureau's requirements for the Initial Budgets, the System Remediation Plan and Federal Funding, and summarizes LUMA's activities as contemplated in the approved budget for the first quarter of Fiscal Year 2022, from July 1, 2021, to September 30, 2021 (Q1). In addition to presenting overall actual results compared to budget, this report also summarizes actual results to budget for LUMA's four departments (Customer Service, Operations, Utility Transformation, and Support Services), the improvement programs, and the federally funded and non-federally funded capital expenditures.

START OF LUMA OPERATIONS

LUMA commenced operation of the T&D System on June 1, 2021, after receiving the required approvals and waivers under the T&D OMA. After the T&D OMA became effective on June 22, 2020 and before starting operations (the period called the Front-End Transition), LUMA undertook multiple activities including an assessment of PREPA's assets and operations as well as preparation of documents and receipt of approvals. LUMA developed the Initial Budgets and System Remediation Plan in late 2020

based on the information gathered as part of the gap assessments in the first months of the Front-End Transition. While remote work due to COVID complicated efforts to collaborate with and work beside PREPA during the Front-End Transition, much was uncovered during this period. Never the less, there have been significant unexpected variances since preparation and submittal of the budget and SRP in late 2020 including material discoveries upon commencement of deficiencies or omissions in the information provided to LUMA.

As part of our commitment to transparency, we want to be very clear about the scope and nature of PREPA's lack of cooperation and unexpected deficiencies and omissions that we discovered since operations began, and the extent to which they presented themselves across the T&D System and the PREPA organization including but not limited to the following:

- Several hundreds of non-functioning electrical assets and equipment, including 29 non-functioning substations, creating serious overloading of circuits and damage to equipment;
- Broad and significant call center & Customer Care & Billing (CC&B) limitations;
- Marginal operability of the Outage Management System;
- Isolated and inaccurate Asset Management system in the midst of an uncompleted upgrade at the commencement date;
- A lack of documentation of current processes and procedures
- No material advancement of engineering on federally funded projects; and
- Critically, insufficient technical and safety training of field employees that represented a direct danger to current operations.

With regard to training, individuals lacked both recent and relevant operational and industry standard training for their roles and documented or systematic processes to support functions. For example, customer experience professionals had not received training in over three years and line worker and substation operators did not have the sufficient Occupational Safety and Health Administration (OSHA) and technical training to perform work safely without direct mentorship. Further, systems and practices were configured in such a way where they were isolated and customized using non-standard methods (with work arounds or short cuts) to meet the needs of individual users rather than providing a standard basic foundation for the organization to perform work. The non-standard configurations, segregation, lack of updating, lack of documentation / drawings, inadequate controls and manual overrides cause significant instability and weaknesses within the systems and have a material impact on the reliability of the processes and data as well as the time and effort required to perform work. These obstacles are present in operating systems that directly impact service, as well as in business systems including those utilized for financial reporting. For instance, reports which can be run daily in a typical utility billing system in PREPA's configuration could only be produced in one batch well after the end of the month. LUMA's team, aided by world class CC&B experts, is currently working through the current system customization in order to run reports more frequently than monthly, and improve customer care.

Each of the significant deficiencies present at June 1 would cause significant operational obstacles. Combined, these cause serious company-wide operational setbacks well beyond reasonable expectations. To help improve the overall energy system and practices that are crucial to building a world class utility in Puerto Rico, LUMA has successfully provided significant training and has started the monumental task of stabilizing systems, improving safety, unwinding system customizations and establishing the proper controls required for prudent utility operation.

If the preceding wasn't difficult enough, LUMA inherited a significant and unexpected backlog of uncompleted work on June 1, 2021. Given PREPA's Front-End Transition obligations under the T&D OMA to cooperate and assist LUMA, there was no contemplation of the substantial backlog that accumulated at PREPA in Spring 2021 as absenteeism increased substantially and work slowed in advance of commencement. The scope of the backlog included the following:

- LUMA inherited over 6,000 unprocessed invoices;
- A significant amount of backlogged field work including line and streetlight repairs and new customers connections;
- During the last months of the Front-End Transition PREPA focused only on peak outages with other restoration work orders accumulating and left unresolved; and,
- There was no material advancement of engineering work by PREPA in the five months between development of the Initial Budgets and start of LUMA operations, resulting in no significant progress of capital work at commencement. This has caused material delays in the advancement of both planned maintenance programs and Federally Funded capital programs.

On June 1, 2021, LUMA assumed operational control and went to work to stabilize the T&D System. This included around the clock management at the control center, rolling fleet in the early hours of June 1 and gaining access (for the first time) to many organizational systems. LUMA was faced with substantial and multiple hurdles achieving any industry standard or what could be defined as normal course utility operations. Among the issues included:

- Multiple security threats to employees and blockages to physical access to equipment and materials necessary for delivery of the O&M Services.
- The need to go to court three times in order to obtain a Temporary Restraining Order to address blockages.
- When LUMA was finally able to gain access to the technical office in Utuado Technical District office, we discovered a heavily damaged and inoperable facility that required significant clean-up and repairs prior to placing it back in operations.
- In response to the threats and blockades, LUMA was required to provide security escorts to field crews and had to rearrange operations, including establishing temporary staging areas.
- LUMA also suffered a Distributed Denial of Service (DDS) attack that hampered communication with and service to customers and an outage event and accompanying fire at the Monacillos Transmission Center which severely disrupted service on June 10. This event drew international media attention given Puerto Rico's history of system wide outages. As the result of a timely and coordinated emergency response, LUMA was able to restore service to all affected customers from the Monacillos incident within approximately 26 hours– a testament of LUMA's operational expertise.

Further, LUMA's activities were severely impacted by the unprecedented problems with availability of PREPA's generation units, resulting in 17 days with controlled load shedding during August and September. Fuel costs also rose quickly during the quarter, due to the unavailability of PREPA's base load units and increasing fuel commodity prices. The required pass-through of higher fuel costs in the fuel portion of rates raised costs to customers at the same time as supply was constrained by PREPA's generation fleet issues beyond LUMA's control.

This was not the way that we had anticipated starting LUMA operations, however we did indeed start, and we have made substantial and impressive progress. Through concerted and intensive efforts and

application of resources, LUMA began to stabilize the T&D System. Nevertheless, these obstacles did materially impact our operations throughout Q1.

Despite these obstacles, LUMA was able to achieve many milestones and successes throughout the quarter. **As of September 30, 2021 LUMA, spent 27% of its annual operational and non-federally funded capital budgets. At this time, we remain on track for no modification to the Rate Order approved by the Energy Bureau in 2017.** LUMA remains focused on stabilizing the system and seeding change, including improvements of the physical infrastructure and overall service quality.

Contents

Tables & Figures

1.0 Summary of Activities

LUMA activities for the first quarter (July 1, 2021 – September 30, 2021) included a wide array of work in Customer Experience, Operations, Utility Transformation and Support Services. During the quarter, LUMA focused on gaining initial control of systems and processes, opening channels of communications for customers, stabilizing the electrical grid, initiating training and safe work methods, introducing improved processes, and creating a pipeline of Federally Funded projects. 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, 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.

As discussed, LUMA was faced with multiple and varied challenges before commencement, in June 2021, and during the first quarter. Despite these challenges LUMA achieved many milestones and successes throughout the quarter.

IMPROVED CUSTOMER COMMUNICATIONS AND RESOURCES

LUMA opened multiple channels of communication for customers, including a new website and mobile device application, rebranded customer service centers, and a cloud-based contact center platform (with four call centers in Puerto Rico) that no longer limits the number of incoming calls. These efforts resulted in decreasing wait times during the quarter while answering more than three times the average number of calls as compared to the previous two years. Customers saw a difference based on the increased Customer Satisfaction score as reported by the J.D. Power Residential Survey increasing by 45 points or 6% over the existing baseline.

INCREASED FOCUS ON SAFETY AND TRAINING

LUMA made safety and training a primary focus across the organization, with particular emphasis on field operations. LUMA Technical College's first class completed their training during the quarter (and graduated in October). To support the new organization and transition, many of LUMA's team that conducted work during the Front-End Transition continued in advisory roles to supplement and upgrade the work throughout the utility. In addition, experienced, skilled temporary field workers were assigned to mentor and initially lead line and substation crews to ensure safety and facilitate appropriate work methods. These highly skilled, temporary workers are imperative to a safe and orderly transition of operations. The number of skilled temporary employees has already begun to be drawn down as other workers achieved higher competency ratings. Nevertheless, it is expected that a contingent of temporary workers will be necessary for the rest of the fiscal year. The transfer of safety and technical knowledge is essential to achieving the goals of a safer, more reliable and resilient electrical grid.

SUPPORTING THE GROWTH OF GREEN, CLEAN AND RENEWABLE ENERGY

In support of the global effort to curb the impact of climate change and Puerto Rico's ambitious renewable energy goals, LUMA devoted considerable effort to accelerating the growth of the renewable's portfolio. Since June, we activated Net Energy Metering (NEM) service for nearly 7,500 customers, representing

over 35 MW of distributed solar generation. To support this effort LUMA increased the speed of processing applications seven times and cleared nearly half of the backlog LUMA inherited on June 1. Some of those customers had been waiting for as long as two years. On September 30, 2021 LUMA launched Puerto Rico's first digital Interconnection Capacity Map. This tool is available to the public on LUMA's website and maps all Puerto Rico distribution circuits with key information to support developers and customers who want to connect distributed generation to the system.

REPAIRING AND REPLACING DAMAGED EQUIPMENT

LUMA's field work and engineering have focused on overcoming a patched, irregular electrical system with many overloaded circuits and to begin replacing faulty equipment and establishing operations according to industry standards. This painstaking near-term work is being conducted on a fragile and largely undocumented system but is essential for sustainable improvement in the customer experience. In the medium and long term, the federally funded capital program (included in the Initial Budgets and detailed in multiple filings with PREB on federal funds) is critical for major steps towards the reliable, resilient electric grid that Puerto Ricans deserve.

The team reduced the backlog of new customer requests for service connections projects by 85% and eliminated the backlog of projects for evaluation and endorsement received from the Permit Management Office (OGPe, based on its acronym in Spanish) from a total of 484 for July 2021 (with 50% over the maximum 30 days allowed review) to a total of 69 cases (all completed within the allowed parameters and 93% in less than 15 days).

Aligned with the Recovery and Transformation Framework outlined in Section 1.4.3 of LUMA's Initial Budgets in Docket No. NEPR-MI-2021-0004 and LUMA's System Remediation Plan (SRP) in Docket No. NEPR-MI-2020-0019, LUMA presents operational activities by department and portfolios of improvement programs established to advance the mission and goals for the Puerto Rico T&D System.

The interim financial information provided within this report has not been subject to audit, and this information is not appropriate for unintended purposes. In this initial quarter of operation, a beginning backlog of over 6,000 unprocessed invoices, 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

Given the significant unexpected variances since preparation and submittal of the budget and SRP including material discoveries in the latter part of the Front-End Transition period and upon commencement of deficiencies or omissions in the information provided to LUMA, our operations were materially impacted throughout Q1 because of these obstacles.

The primary reason for the budget variance for Operating Expenditures relates to labor and related expenditures associated with the number of mainland workers required during the quarter to stabilize the grid and to accomplish the task of training and upgrading the existing labor force in terms of both overall job skills as well as a specific emphasis on safety processes and procedures. LUMA's proactive actions to augment the workforce with trained and qualified workers was necessary to prevent safety incidents and avoid additional outage impacts on our customers. Additional significant expenditures in excess of budget related to the use of materials and supplies to support increased remediation efforts and provide employees with the necessary supplies to perform their tasks, costs incurred to repair existing fleet assets and put them in compliance with regulations such that crews could perform their work and additional security costs to ensure the safety of our crews and support employees during post-commencement security threats, protests and blockages of physical access to LUMA equipment and facilities.

The Q1 budgeted amounts are consistent with LUMA's forecasted progression of its activities approved within the FY2022 Budget.

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

1			2	3	4	5	6
		Schedule Reference	FY 2022 Budget[1]	Q1 Budget[1]	Q1 Actual	Variance *($)*	Variance *(%)*
	Transmission & Distribution						
1	**Total Operating Expenditures**	*2.1*	$ 524.8	$ 124.4	$ 156.4	$ (32.0)	
2	**Non-Federally Funded Capital Expenditures**	*2.3.1*	$ 124.1	$ 11.8	$ 16.4	$ (4.5)	
3	**Subtotal**		$ 648.9	$ 136.2	$ 172.8	$ (36.5)	(27%)
4	**Federally Funded Capital Expenditures**	*2.3.1*	$ 650.4	$ 34.2	$ 15.9	$ 18.3	54%

[1] FY2022 and Q1 Budget figures above include 2% Reserve for Excess Expenditures.

2.2 Transmission & Distribution Operating Expenditures

Total expenditures during Q1FY2022 were approximately $156 million as compared to a budget of $124 million. The variance is largely attributed to address safety and reliability issues, and higher than budgeted labor expenditures related to a backlog of work left by PREPA, increased training requirements and a delay in federal funding due to the lack of anticipated advancement of work by PREPA in first half 2021. While each of the noted issues had material financial impact, the most influential were the critical need for LUMA to have qualified field personnel as part of each crew as well as mentoring to provide continuity of service and to bridge an initial need due to the serious lack of industry standard safety and work practices taught and followed at PREPA.

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

	1	2	3	4	5	6
		Transmission & Distribution Total Operating Expenditures				
		FY2022 Budget	Q1 Budget	Q1 Actual	Variance *($)*	Variance *(%)*
	Labor					
1	Salaries, Wages and Benefits	212.3	46.3	72.7	(26.4)	
2	**Total Labor**	**$ 212.3**	**$ 46.3**	**$ 72.7**	**$ (26.4)**	**(57%)**
	Non-Labor					
3	Materials & Supplies	20.6	5.1	11.7	(6.6)	
4	Transportation, Per Diem, and Mileage	21.0	5.2	12.2	(6.9)	
5	Property & Casualty Insurance	15.4	3.9	3.0	0.8	
6	Security	9.6	2.4	4.2	(1.9)	
7	IT Service Agreements	30.4	7.6	5.3	2.3	
8	Utilities & Rents	19.0	4.7	5.3	(0.5)	
9	Legal Services	9.0	2.2	1.5	0.7	
10	Communications Expenses	4.7	1.2	1.0	0.1	
11	Professional & Technical Outsourced Services	88.2	22.1	18.5	3.6	
12	Vegetation Management	51.3	12.8	13.9	(1.1)	
13	Regulation and Environmental Inspection	4.0	1.0	0.1	0.9	
14	Other Miscellaneous Expenses	28.8	7.3	7.0	0.4	
15	Other Expenses	0.3	0.1	-	0.1	
16	**Total Non-Labor / Other Operating Expense**	**$ 302.2**	**$ 75.7**	**$ 83.7**	**$ (8.1)**	**(11%)**
17	**Subtotal**	**$ 514.5**	**$ 122.0**	**$ 156.4**	**$ (34.4)**	**(28%)**
18	2% Reserve for Excess Expenditures	10.3	2.4	-	2.4	
19	**Total Operating Expenditures**	**$ 524.8**	**$ 124.4**	**$ 156.4**	**$ (32.0)**	**(26%)**

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 establishing appropriate communication protocols and standard billing and collection practices that personify courtesy, capture efficiencies, and create proactive solutions for customers.

During the quarter, the team focused on providing customers multiple channels to connect with LUMA, ramping up to meet greater than expected and historically recorded customer demand, and launching the Mi LUMA self-serve platform. As of September 30, 564,087 customers registered an electronic Mi LUMA account and the Mi LUMA app was downloaded 375,583 times. LUMA also opened multiple social media channels, including on Facebook messenger and Twitter, to give customers new ways to communicate with their utility. During this first operating quarter, LUMA completed its submission to the PREB for a new, customer-friendly bill with improved information and clearer account data, with plans for introduction of the new bill after January 2022, pending final regulatory approvals.

Improving customer experience and training customer-facing employees was a major goal and effort across Q1. While it appears that PREPA Customer Service teams did not receive comprehensive training during the previous four years. LUMA has provided extensive training to all of its Customer Experience employees and continues to train all newly onboarded employees in order to improve all facets of the customer experience. Training includes Customer Community Excellence training, operational system training, and job specific skill training. Further, many of the teams have daily refresher training sessions and more significant training sessions multiple times per month. In addition, LUMA launched a quality assurance program to support the foundational activities of creating and reinforcing positive work habits.

To help address customer billing and service issues and questions, LUMA re-branded and reopened all 25 customer service centers located in communities across Puerto Rico and assisted more than 492,000 customers during the quarter, on average 10,000 customers were served daily at the customer service centers. LUMA was able to achieve wait times at service centers of 10 minutes and 15 seconds on average versus over 21 minutes logged by PREPA in April and May 2021.

LUMA implemented a cloud-based contact center platform and opened four contact centers in Puerto Rico. This allowed LUMA to receive all calls placed to LUMA, instead of limiting incoming calls as was the practice at PREPA. The current state of improvements to customer service and experience includes the following:

- For Q1 LUMA handled a total of 590,985 calls, a 39% increase over PREPA's calls answered from the same period in 2020. This resulted in LUMA attending to an average of 6,500 calls per day. This means that on average each month, LUMA answers three times more calls than PREPA did prior to commencement. Improvements throughout the quarter resulted in significant decreases in wait times at service centers and by phone.
- The first J.D. Power Residential Survey covering LUMA's operations resulted in an overall increase of 45 points or a 6% increase in Customer Satisfaction (CSAT) from the PREPA baseline taken prior to commencement. Most notable results were a 13% increase in both in-person customer service and power quality and reliability.
- LUMA also established a new team (Key Accounts), first of its kind in Puerto Rico, representing a wholistic approach to customer relationships. A dedicated team focused on providing proactive customer experience to our large commercial and industrial customers as well as providing a single point of contact to Puerto Rico's 78 mayors / municipalities. LUMA improved the average resolution

time for key account inquiries, from 5.7 days during the month of August to 2.3 days during the month of September, representing a 59% increase in the speed of resolution.

- The Revenue Protection team initiated approximately 25,000 outbound phone calls to customers with outstanding debts to offer both payment arrangements and information on how to access financial funding available through COVID relief funds and/or low-income funding programs.

LUMA's efforts in billing services focused on normalizing accounts, restoring billing that was discontinued and initiating billing for accounts that were in the queue and processed more than $765 million in payments. LUMA discovered and continues to discover material and serious issues with the CC&B system including the lack of real time reporting capabilities, manual forced closings and other manual overrides, sub-standard controls and configurations. For example, LUMA discovered a PREPA practice where if a customer received estimated bills for over 18 months, billing to the customer was manually stopped (however service would not stop). LUMA restarted more than 1,800 accounts affected by this PREPA billing practice including, where possible, obtaining a meter read for the customer. The cumulative effect of these issues is a weak and susceptible system. Resolution of these issues will require significant effort and cost over several years.

Further, LUMA manually billed more than $85 million through the resolution of approximately 40,000 unbilled accounts. LUMA continued to investigate billing issues and focused on resolving the underlying issues rather than forcing a manual patch for the current month. LUMA partnered with several funding agencies including La Familia and Vivienda to ensure customers have access to and are educated on the various financial relief programs available to them.

Key variances within the Customer Experience department's operational costs include lower than expected professional and technical services costs as CC&B monthly reporting cadence limited the improvement workstreams. Efforts are underway to resolve the CC&B reporting issues.

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

	1	2	3	4	5	6
				Customer Experience		
		FY2022 Budget	Q1 Budget	Q1 Actual	Variance ($)	Variance *(%)*
	Labor					
1	Salaries, Wages and Benefits	41.3	8.9	7.8	1.2	
2	**Total Labor**	**$ 41.3**	**$ 8.9**	**$ 7.8**	**$ 1.2**	**13%**
	Non-Labor					
3	Materials & Supplies	0.3	0.1	0.1	0.0	
4	Transportation, Per Diem, and Mileage	0.7	0.2	0.0	0.1	
5	Property & Casualty Insurance	-	-	-	-	
6	Security	0.2	0.1	-	0.1	
7	IT Service Agreements	-	-	-	-	
8	Utilities & Rents	0.0	0.0	0.3	(0.3)	
9	Legal Services	0.6	0.2	-	0.2	
10	Communications Expenses	0.3	0.1	0.0	0.1	
11	Professional & Technical Outsourced Services	23.7	5.9	2.9	3.0	
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**	**$ 3.5**	**$ 3.3**	**49%**
17	**Total Operating Expense**	**$ 68.3**	**$ 15.7**	**$ 11.2**	**$ 4.4**	**28%**

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 of our customers.

LUMA began on June 1, 2021 with a substantial effort to: a) ensure field crews had appropriately trained employees and access to the appropriate tools and equipment to perform work safely, efficiently and correctly including modern, functioning tools, personal protective equipment (PPE), safety-compliant vehicles and heavy equipment, b) gain access and clean-up work spaces to facilitate safe and effective work, and c) begin to address the substantial backlog of work left by PREPA, including restarting workstreams that had been largely stopped before commencement (i.e., streetlights, new customer connections, etc.).

LUMA's commencement of operations also coincided with hurricane season in Puerto Rico. LUMA implemented the Emergency Response Plan, including through activating the LUMA Emergency Operations Center for three named storms: Hurricane Elsa, Tropical Storm Fred and Hurricane Grace.

To ensure the safety of our workforce and our customers, LUMA has made safety and training a primary focus of its operations. This is most visible in the field where we provided all field personnel with access to modern, functioning tools, personal protective equipment (PPE), safety-compliant vehicles and many new pieces of heavy equipment. Prior to commencement, these essential items were severely lacking. A rollout of intensive onboarding, safety and technical training courses and on the job training (safety and technical) was a priority for the first quarter and will continue to be LUMA's priority as we execute our promise of investing in the technical skills and careers of LUMA employees. The results of LUMA's focus on safety values in the workplace are revealing. In the first quarter of this fiscal year, LUMA had a recordable injury rate of 2.40, a Days Away Restricted Duty (DART) rate of 1.39, and a Severity Rate of 13.16. These compared to PREPA baselines of 6.90, 5.95, and 50.84 respectively and represent 65%, 77%, and 74% improvements in safety statistics, respectively.

While LUMA was able to hire a large number of workers with experience on the Puerto Rico T&D System before June 1, and continues to hire workers with such experience, it was evident that technical skill levels were unfortunately substantially below industry standard expectations and often lacked critical safety and electric system operation competencies due to a significant lack of historical training. To ensure and promote a stronger safety and work culture, LUMA intensified recruiting and onboarding efforts during the first quarter, and where necessary, recruited experienced and skilled temporary employees. Placing skilled temporary line workers and substation operators in key mentorship roles within crews is critical to providing a safe work environment and demonstrates a commitment to invest in employees through technical skills training. The skilled temporary employees provide mentorship, critical on-the-job training and establish and reinforce a safe work culture, to ensure LUMA's field crews start to operate according to OSHA, Department of Labor and International Brotherhood of Electrical Workers (IBEW) standards.

Each line crew was paired with a skilled temporary employee, who provided critical guidance, ensured completion of job hazard analyses, taught safe, efficient, and standard work practices, and developed and reinforced consistent work habits. The mentorship also provided the teaching of quality workmanship, effective issue resolution and work ethic. The near-term skills and safety support required by the field crews coupled with the safety sensitive and distributed nature of the work resulted in materially above budgeted labor costs. It is anticipated that demand for the skilled temporary workers will decrease as

LUMA continues training and upgrading competencies of the field crews, however approximately $11 million in labor and associated costs was spent on this mentorship program in Q1. This is in addition to over 45,000 hours of training courses for CPR/First aid, OSHA, Power Switching, Substation Entry, Apprentice, Human External Cargo, Rigging, Upskilling Utility Lineworkers, Bucket, Crane and On-the-job training and more than 6,000 hours of substation operations training on safety topics, system operations, proper troubleshooting procedures and effective utilization of tools and test equipment.

To help improve reliability, and other issues related to reliability, LUMA also had to perform a significant amount of clean up across the system and of operational areas including clearing 139 substations of weeds and vegetation, removal & disposal of approximately 455,000 pounds of scrap metal, 162,000 pounds of aluminum, 35,000 pounds of copper, and 42,000 pounds of old streetlight heads and millions of gallons of trash and debris.

Given the significant backlog of field work inherited at commencement, LUMA took immediate action by increasing urgent and critical work to tackle the large and serious backlog. The backlog, coupled with starting operations during the summer, typically the period with the most outages, required significant overtime and support from seconded employees. This added effort enabled LUMA to clear the backlog and perform materially more work, including replacing approximately 1,070 poles (almost three times more than PREPA's approximately 380 poles replaced over the same period in FY2020) and repaired and energized three substations within the San Juan Municipality, including Puerta de Tierra that had been out of service since 2010. The team operationalized five Remote Terminal Units (RTUs) to enable appropriate communication with Operations Control Center, including Las Mercedes RTU after more than five years out of service. LUMA repaired and / or replaced and re-energized 27 (approximately one every three days) high priority distribution breakers yielding immediate benefits in reliability for customers.

Upon commencement, LUMA initiated a campaign to locate the fleet units listed in PREPA's records. At commencement over 2,000 units were unaccounted for. As of September 30, 2021, 960 units remain unaccounted for. LUMA focused on addressing remediation issues required to bring the fleet into compliance with regulations and standards required by the United States Department of Transportation (USDOT), OSHA, and the American National Standards Institute (ANSI), and bringing repair and maintenance facilities up to industry standards. As part of a comprehensive vehicle safety program, LUMA became a member of the Commercial Vehicles Safety Alliance (CVSA) and LUMA's mechanics obtained USDOT and air brakes systems inspector certifications by the USDOT. Both the CVSA membership and the USDOT certifications are firsts for a company / utility in Puerto Rico. The team also started to right size the fleet, making initial purchases and rentals to fill critical gaps, and established contracts with outside vendors for repair activities. By the end of the quarter, LUMA had put in service 1,200 new or repaired vehicles, fully compliant with transportation and safety requirements for electric utility service.

LUMA worked with multiple vegetation management contractors during the quarter by assuming several contracts from PREPA. LUMA also advanced the procurement process to transition to new contracts based on a comprehensive, multi-year reclamation strategy consistent with the Vegetation Management Plan. Crews responded to over 1,075 emergent vegetation-related work orders and started implementation of its substation vegetation control program, including the clearing of vegetation from 139 substation sites and applying bare ground treatment at 88 substation sites.

In support of the field work, LUMA completed the required Information Technology (IT) and Operation Technology (OT) hardware and software additions and upgrades to enable all urgent work to be

dispatched through a centrally located dispatcher for all six regions. As part of the effort to standardize and document processes, LUMA also published tool and equipment lists as well as guidelines and standards across the Operations team. Work plans were also developed for a near term pipeline of work (documentation completed included 1,548 pole replacement packets, 105 non-conformance reports and 1,508 work order inspection packets). LUMA opened and operated 21 warehouse facilities across Puerto Rico with a focus on training personnel, standardization and reporting basic function processes, and launching Inventory, Asset Recovery, and Logistics functions. The team also reviewed and adjusted inventory levels at all locations.

LUMA's efforts allowed line workers to advance their activities throughout the quarter with focus shifting from maintaining continuity of service in July, to training personnel and rebuilding portions of transmission lines in August, to begin the monumental task of strengthening the grid for a more stable and trustworthy system in September.

Key variances within the Operations department's operational expenditures include higher than budgeted labor, transportation, per diem and mileage and materials and supplies costs. The variance in labor, transportation, per diem and mileage resulted from adding to each line and substation crew, a skilled temporary employee to provide critical guidance and training on safety and quality workmanship. This is in line with LUMA's commitment to safety and training. The variance in materials and supplies resulted from the initial costs to provide our employees with the appropriate tools, supplies and equipment to perform work safely, efficiently and correctly including modern, functioning tools, personal protective equipment (PPE). It is anticipated that the costs associated with materials and supplies will be higher in the first half of the fiscal year as tools and materials purchased can be used beyond the current quarter.

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

	1	2	3	4	5	6
				Operations		
		FY2022 Budget	Q1 Budget	Q1 Actual	Variance ($)	Variance *(%)*
	Labor					
1	Salaries, Wages and Benefits	114.6	24.9	47.2	(22.3)	
2	**Total Labor**	**$ 114.6**	**$ 24.9**	**$ 47.2**	**$ (22.3)**	**(89%)**
	Non-Labor					
3	Materials & Supplies	18.3	4.6	11.0	(6.4)	
4	Transportation, Per Diem, and Mileage	16.5	4.1	11.7	(7.5)	
5	Property & Casualty Insurance	-	-	-	-	
6	Security	-	-	0.1	(0.1)	
7	IT Service Agreements	3.2	0.8	-	0.8	
8	Utilities & Rents	9.0	2.3	2.5	(0.3)	
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	6.0	(0.4)	
12	Vegetation Management	51.3	12.8	13.9	(1.1)	
13	Regulation and Environmental Inspection	-	-	0.1	(0.1)	
14	Other Miscellaneous Expenses	12.3	3.2	0.5	2.7	
15	Other Expenses	-	-	-	-	
16	**Total Non-Labor / Other Operating Expense**	**$ 135.3**	**$ 34.0**	**$ 45.8**	**$ (11.9)**	**(35%)**
17	**Total Operating Expense**	**$ 250.0**	**$ 58.9**	**$ 93.1**	**$ (34.2)**	**(58%)**

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.

Significant effort and focus were required during the months of August and September, as PREPA's generation availability was severely limited, and the team had to constantly adjust for unexpected and forced outages. Further, the team managed a total of 17 days during which load shed programs were executed to compensate for the deficits in the PREPA's generation supplies. During that period, LUMA improved the load shed programs to minimize the impact on critical customers and ensure outage durations were limited. The frequent generation shortfalls also caused extra work to our field crews as switching equipment failure required human intervention to restore service.

The Utility Transformation team took over and made key modifications to the Net Metering (NEM) program, centralizing management, standardizing processes and improving communication with customers. As a result, LUMA activated NEM service for nearly 7,500 customers since June, representing over 35 MW of distributed generation—and clearing almost half of the backlog inherited on June 1. This is a processing speed of nearly seven times PREPA's historical rates.

LUMA coordinated the completion of transmission interconnection Feasibility Studies for 46 projects for the Tranche 1 Renewables Request for Proposals (RFP) overseen by the Energy Bureau, representing 1,255 MW in solar and 756 MW in energy storage. On September 30, 2021 LUMA launched Puerto Rico's first digital Interconnection Capacity Maps which are publicly available on LUMA's website and show information on all Puerto Rico distribution circuits. This new tool provides customers and solar developers with valuable (and previously unavailable) data to guide cost effective placement of additional rooftop solar.

LUMA started a grid reinforcement initiative to prioritize work to improve reliability and resilience including refining and verifying reliability data to enhance focus on the worst performing circuits. As of September 30, 2021, the priority list for repair or replacement had 758 items including distribution feeders, transmission lines, circuit breakers, transformers, reclosers, capacitor banks, and RTUs. By the end of the first quarter, LUMA repaired, or replaced and put into service over 100 pf the out of service assets / equipment (14%)—this included re-energizing 27 out of 32 high priority distribution feeder breakers. We have also repaired and energized three substations, all within the San Juan Municipality: Puerta de Tierra (out of service since 2010), Seboruco (out of service since 2018), and Egozcue (out of service since 2020).

The engineering team completed 40 work order packages for distribution feeders which are to be rehabilitated to minimize outages and increase service reliability to critical loads. The team overcame a lack of existing processes, lack of connectivity between material and accounting systems, and a mismatch between engineering standards and the Storms work order system.

The engineering team also reduced the backlog of new customer service connections projects by 85%. The customer new service requests received from the Permit Management Office (OGPe, based on its acronym in Spanish) were reduced from a total of 484 (with 50% over the maximum 30 days allowed for review) to a total of 69 cases (all completed within the allowed parameters and 93% in less than 15 days)

by the end of September. LUMA accomplished this by improving the procedures for new customer connections, coordinating with the Puerto Rico Builders Association and creating a project tracking system.

The capital programs team formalized processes and procedures for capital initiatives across LUMA and undertook significant training for our new employees. The team also established strong working relationships with COR3 and FEMA including the FEMA Environmental and Historic Preservation (EHP) and 406 Hazard Mitigation teams. Because LUMA's federally funded capital projects are some of the first under FEMA's Accelerated Award Strategy (FAASt) program, LUMA, COR3 and FEMA undertook the task to understand and institute processes to complete the required approvals for large-scale, complex utility projects. Despite working through the necessary processes, LUMA advanced the federal funding work and has commenced preliminary engineering efforts in accordance with FEMA requirements. As of September 30, 2021, LUMA has approval for 65 Initial Scopes of Work (SOWs) representing $2.8 billion of work with an additional 67 Initial SOWs representing an additional $4.6 billion of work reviewed and approved by PREB since.

Continued development of the operational procedures associated with the System Operation Principles, was a focus for the system operations team. The operational procedures are approximately 80% complete as of September 30, 2021 and on schedule for completion in December 2021. The team reviewed and improved the operational load forecast process, including weather conditions effects, and have deployed an outage prediction model.

For metering, the team focused on improving the Automated Meter Reading (AMR) effectiveness. The team repaired more than 50 substations that had issues affecting AMR communications. These repairs improved the effective monthly read effectiveness for the system from 84% to above 90%, reducing the number of meters that have must be read manually.

Significant required efforts increased Q1 labor costs above budget. These mainly consisted of reducing unanticipated, large backlogs in new customer service requests, a focused effort on reducing the Distributed Generation backlog and efforts related to finding, documenting, and subsequently planning and prioritizing, for the more than 700 out-of-service elements on the grid (including 259 substation distribution breakers).

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

	1	2	3	4	5	6
		Utility Transformation				
		FY2022 Budget	Q1 Budget	Q1 Actual	Variance ($)	Variance *(%)*
	Labor					
1	Salaries, Wages and Benefits	20.0	4.3	7.5	(3.3)	
2	**Total Labor**	**$ 20.0**	**$ 4.3**	**$ 7.5**	**$ (3.3)**	**(76%)**
	Non-Labor					
3	Materials & Supplies	0.6	0.2	0.2	(0.1)	
4	Transportation, Per Diem, and Mileage	1.9	0.5	0.2	0.3	
5	Property & Casualty Insurance	-	-	-	-	
6	Security	-	-	-	-	
7	IT Service Agreements	-	-	-	-	
8	Utilities & Rents	0.0	0.0	0.3	(0.3)	
9	Legal Services	-	-	-	-	
10	Communications Expenses	0.0	0.0	-	0.0	
11	Professional & Technical Outsourced Services	6.8	1.7	1.7	(0.0)	
12	Vegetation Management	-	-	-	-	
13	Regulation and Environmental Inspection	-	-	-	-	
14	Other Miscellaneous Expenses	0.8	0.2	0.2	(0.0)	
15	Other Expenses	-	-	-	-	
16	**Total Non-Labor / Other Operating Expense**	**$ 10.1**	**$ 2.5**	**$ 2.6**	**$ (0.0)**	**(2%)**
17	**Total Operating Expense**	**$ 30.1**	**$ 6.8**	**$ 10.1**	**$ (3.3)**	**(49%)**

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.

LUMA continued to focus on the growth of its team, now more than 3,000 employees strong. Efforts included onboarding on average 175 individuals per month, providing approximately 25 onboarding sessions, and conducting more than 1,700 interviews. Further, LUMA entered into a Project Labor Agreement and a Collective Bargaining Agreement with the IBEW to ensure safe, fairly compensated and well-trained workers to help achieve the future T&D recovery and transformation work.

During Q1, LUMA established regular field safety field crew, site inspections and investigations. We also commenced a regular program of safety and technical training, with approximately 65 training classes. LUMA activated its Emergency Operations Center in response to Hurricane Elsa, Tropical Storm Fred and Hurricane Grace. LUMA was able to mobilize resources, restore affected customers timely, and effectively coordinate with the Puerto Rico Emergency Management Bureau, the Office of Energy Public Policy, and other key stakeholders. We also rolled-out our public safety initiative with various publications to social media, presenting electrical safety best practices to first responders, and through participation in public safety events.

As part of our broad commitment to transparency and customer communications, LUMA focused the external communications effort on brand building and customer initiatives, including the multimedia brand launch campaign. During the first quarter LUMA held three media roundtables and issued hundreds of responses that included interviews (tv, radio & press), press releases and social media communications across four major channels (Facebook, LinkedIn, Twitter and Instagram). The team also supported social media campaigns including hurricane preparedness and public safety. Further, we participated in over ten professional organizations events such as annual conventions and executive meetings and conducted seven community events focusing on children and disaster preparedness in partnership with the Boys and Girls Club for Puerto Rico and the American Red Cross of Puerto Rico.

LUMA actively participated in multiple active litigation cases, including several cases challenging the T&D OMA. Furthermore, the team has responded to over 100 requests for information, questions or comments from the Puerto Rico House of Representatives and Senate as well as participated in a myriad of public hearings. As of September 30, 2021, LUMA has submitted to the Puerto Rico Legislature over 5,000 pages of the requested information.

After start of operations, LUMA provided physical security escorts to many field crews, and actively worked to provide adequate security to all employees and at all facilities. As part of this effort, the private security function was reorganized and LUMA started Phase 1 of the Physical Security Plan that includes clean up, clearing, and installation of fencing and locks at critical site. In a separate but complimentary effort, plans were made for security upgrades at 13 of 26 customer experience offices and we initiated a corrective action plan at the Monacillos Customer Experience Office.

Related to facilities, LUMA focused efforts on restoration activities of basic but critical systems, including inoperable generators, cisterns, and Heating, Ventilation, and Air Conditioning (HVAC) systems, critical roof repairs, repairs to life, fire, safety systems, and elimination of code violations. The team also completed significant cleaning and debris removal efforts to facilities across Puerto Rico. LUMA replaced

outdated equipment, and where necessary, installed new hardware and network capabilities at facilities, enabling and establishing internet access. Specifically, the team enabled internet access to all Regional Customer locations and WIFI to office facilities which previously did not have WIFI.

LUMA also provided field personnel access to electrical network data and IT OT remote resources with personal protective equipment to promote safe operation. The team began implementation of the Cybersecurity Program, developed a testing process framework and standards as well as stabilizing the Outage Management System. A significant effort was made to ensure employees had the IT devices needed to perform work. LUMA did not receive a complete inventory list or access to existing equipment during the Front-End Transition. As a result, LUMA could not complete its assessment. After starting operations, LUMA had to purchase an unexpected number of new devices in a short time in order for employees to have properly functioning, secure devices and to mitigate the cybersecurity risks posed with keeping the below-standard, outdated devices received from PREPA.

LUMA's finance team implemented a separate general ledger accounting system (prepared during the Front-End Transition) for the T&D System. We also worked diligently to clear a backlog of more than 6,000 unprocessed invoices for goods purchased or services rendered prior to June 1, 2021. Finance implemented modified processes and greater system functionality for capturing of costs and hours for tracking capital projects, and improvement programs. An enterprise risk management system began implementation for key areas of LUMA. The risk management team also progressed integrated procedures to support contract risk and insurance requirements and insurance claims procedures for third party and auto fleet claims.

As of September 30, LUMA negotiated, executed, and registered over 100 contracts, extended nearly 150 Systems Contracts for business continuity purposes, and pre-qualified nearly 500 vendors. The procurement team initiated more than 50 new procurements, including public competitive bids, with an estimated total value over $250 million. LUMA issued multiple property documentation and obtained multiple permits in support of LUMA operations and capital programs. LUMA completed the processing of 102 projects for the Environmental Evaluation Recommendation (its acronym in Spanish, REA) with OGPe during the quarter. After clearing a backlog inherited from PREPA, all REA applications are being completed in less than the allowed 30 days.

While LUMA's interaction with the Energy Bureau began early in the Front-End Transition, during the first quarter LUMA's work in PREB's 25+ regulatory dockets and ambitious policy initiatives increased significantly. LUMA filed over 60 submissions and participated in over 15 technical conferences, workshops and hearings. Importantly, LUMA attended an Evidentiary Hearing for the adjudicative proceeding on the Unbundling of the Assets of the Puerto Rico Electric Power Authority. In the Performance Metrics docket, LUMA provided revised filings including nine witness testimonies and associated working papers and received and responded to numerous requests within discovery. LUMA also kicked off T&D OMA compliance activities, working collaboratively with stakeholders for development and alignment of ongoing reporting requirements with P3A and PREPA, as well as FOMB.

Key variances within the Support Services department's operational expenditures includes labor, security and miscellaneous expenses. 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 increased initial requirements for the safety of facilities and field personnel. Miscellaneous costs variance is mainly attributed to higher than budgeted bank fees and initial moving, cleanup and debris removal costs associated with office buildings.

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

	1	2	3	4	5	6
		Support Services				
		FY2022 Budget	Q1 Budget	Q1 Actual	Variance ($)	Variance *(%)*
	Labor					
1	Salaries, Wages and Benefits	36.3	8.1	10.1	(2.0)	
2	**Total Labor**	**$ 36.3**	**$ 8.1**	**$ 10.1**	**$ (2.0)**	**(24%)**
	Non-Labor					
3	Materials & Supplies	1.3	0.3	0.4	(0.1)	
4	Transportation, Per Diem, and Mileage	1.9	0.5	0.3	0.2	
5	Property & Casualty Insurance	15.4	3.9	3.0	0.8	
6	Security	9.3	2.3	4.2	(1.8)	
7	IT Service Agreements	27.2	6.8	5.3	1.5	
8	Utilities & Rents	10.0	2.5	2.2	0.3	
9	Legal Services	7.9	2.0	1.5	0.5	
10	Communications Expenses	2.7	0.7	1.0	(0.4)	
11	Professional & Technical Outsourced Services	35.3	8.8	7.8	1.0	
12	Vegetation Management	-	-	-	-	
13	Regulation and Environmental Inspection	4.0	1.0	-	1.0	
14	Other Miscellaneous Expenses	14.6	3.7	6.1	(2.4)	
15	Other Expenses	0.3	0.1	-	0.1	
16	**Total Non-Labor / Other Operating Expense**	**$ 129.8**	**$ 32.5**	**$ 31.9**	**$ 0.6**	**2%**
17	**Total Operating Expense**	**$ 166.2**	**$ 40.6**	**$ 42.0**	**$ (1.4)**	**(3%)**

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

As noted in the Forward section above, there was minimal material advancement of engineering work by PREPA between LUMA's development of the Initial Budgets and commencement (approximately 5 months). This left LUMA with no meaningful pipeline of federally funded capital projects at commencement. As a result, capital expenditures are expected to be low in the initial months and ramp up as design and engineering work is completed to allow for greater field activities. Non-federally funded capital expenditures, as budgeted, are included in funds provided from the base rate to the T&D System. During the quarter, non-federal capital expenditures were above budget driven by increased capital within the Distribution Portfolio. Federally funded capital expenditures were approximately half of expected expenditures contemplated at the time the Initial Budgets were developed in late 2020 – largely due to the minimal progress on federally funding work in the first half 2021 by PREPA. Progress began during the quarter with work now in the design and engineering phase, while approvals and process steps with FEMA and COR3 are being collectively established. As the projects already approved move through further design and engineering and the FEMA approval process, federally funded capital expenditures are expected to ramp up significantly; however, the impact of inaction during the first six-months of 2020 is expected to impact fiscal 2022 capital results.

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**	**Q1 Budget**	**Q1 Actuals**	**Variance *($)***	**Variance *(%)***
1	Customer Service	82.7	4.1	5.1	(1.0)	
2	Distribution	199.2	10.0	2.0	7.9	
3	Transmission	235.9	8.8	0.9	7.9	
4	Substations	89.1	4.5	3.6	0.8	
5	Control Center & Buildings	9.3	2.0	0.8	1.2	
6	Enabling	17.1	4.0	3.2	0.8	
7	Support Services	4.3	0.1	0.2	(0.1)	
8	**Subtotal**	**$ 637.7**	**$ 33.5**	**$ 15.9**	**$ 17.6**	**53%**
9	**Other**					
10	2% Reserve for Excess Expenditures	12.8	0.7	-	0.7	100%
11	**Total Capital Expenditures**	**$ 650.4**	**$ 34.2**	**$ 15.9**	**$ 18.3**	**54%**

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

	1	7	8	9	10	11
		Non Federally Funded Capital				
	Improvement Portfolio	**FY2022 Budget**	**Q1 Budget**	**Q1 Actuals**	**Variance *($)***	**Variance *(%)***
1	Customer Service	13.1	0.7	1.5	(0.8)	
2	Distribution	35.3	1.8	3.4	(1.6)	
3	Transmission	1.7	0.1	-	0.1	
4	Substations	18.9	0.9	0.1	0.8	
5	Control Center & Buildings	3.2	0.8	0.6	0.1	
6	Enabling	41.3	5.6	6.3	(0.7)	
7	Support Services	8.2	1.8	4.5	(2.7)	
8	**Subtotal**	**$ 121.6**	**$ 11.6**	**$ 16.4**	**$ (4.8)**	**(41%)**
9	**Other**					
10	2% Reserve for Excess Expenditures	2.4	0.2	-	0.2	100%
11	**Total Capital Expenditures**	**$ 124.1**	**$ 11.8**	**$ 16.4**	**$ (4.5)**	**(38%)**

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 NEPR-MI-2021-0004 and the System Remediation Plan in NEPR-MI-2020-0019. Program spending includes operating expenditures as well as capital expenses approved by PREB in the FY2022 budget and included in the FY2022 Fiscal Plan approved by the FOMB. Specific project Initial Scopes of Work (SOWs) for federally funded projects have been submitted and reviewed by the Energy Bureau in 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 FY 2022 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 program summaries, spending summaries, and status updates on material[1] programs. For a comprehensive listing on SRP milestones for all SRP Improvement Programs, please refer to the schedule package in Exhibit 1, Microsoft Excel Tab 'SRP Milestones'.

For many of the Improvement Programs that make up the Distribution, Transmission, and Substation portfolios, spending has been lower than budgeted for the quarter. This trend is common amongst the asset-related Improvement Programs with large capital budgets. The overarching explanations for this budget variance are:

1. PREPA did not advance approved projects as expected and outlined in PREPA's 10-Year Plan filed as filed within NEPR-MI-2021-0002 or contemplated under the T&D OMA prior to commencement; and
2. LUMA was unable to work directly with FEMA prior to commencement.

During the Front-End Transition LUMA took significant actions to support the execution of projects and to maximize available federal funding reimbursement. These efforts include the advancement of several Improvement Programs including development of project controls as well as establishment of project management, funding management, risk management and estimating offices. LUMA expected that as of commencement on June 1 PREPA would have made significantly more progress on the engineering of T&D capital projects. Instead on June 1, 2021 LUMA found almost no progression with Architecture and

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

Engineering (A&E) firms had been completed. The result is that projects are six months behind the Initial Budgets.

As the FEMA Public Assistance is inaugural in size and form of funding (FEMA Accelerated Awards Strategy or FAASt), multiple levels of government need to define and provide clarity on funding requirements. During the quarter, LUMA has worked closely with FEMA and COR3 to support the evolving federal funding requirements to support FAASt reimbursements.

In addition, at the time of developing the Initial Budgets, LUMA had yet to perform skill assessments on incoming employees. Training deficiencies permeate throughout the organization, including employees from all departments from the office to the field. LUMA has focused on training and this has slowed our ability to progress some of our Improvement Programs.

When we forecasted the quarterly spend for the approved fiscal year 2022 budget, we recognized the ramp up in spending that would occur throughout the fiscal year, but we could not foresee the full scale of the additional delays we are currently experiencing as noted above.

While the ramp up in spending will still occur and expenditures will be higher in the latter quarters of fiscal year 2022, the first quarter spend is lower than anticipated. LUMA is working to advance schedules where possible, but spending will ultimately be pushed further into fiscal year 2022 and fiscal year 2023 than was contemplated in our forecasted quarterly spend.

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

	1	2	8	9	10	11	12	13	14	15	16	17	18	19
			Q1 Budget					Q1 Actuals					Total Variance	
	Portfolio	Program	Q1 Federal Funded CapEx	Q1 Non-Federal Funded CapEx	Q1 OpEx	Total	SRP Total	Q1 Federal Funded CapEx	Q1 Non-Federal Funded CapEx	Q1 OpEx	Total	SRP Total	$	%
1	**Customer Experience**		**$ 4.1**	**$ 0.7**	**$ 1.0**	**$ 5.8**	**$ 1.9**	**$ 5.1**	**$ 1.5**	**$ 2.3**	**$ 8.8**	**$ 5.1**	**$ (3.0)**	**-53%**
2		Distribution Streetlighting	4.0	-	-	4.0	1.3	5.1	-	-	5.1	5.1		
3		Billing Accuracy & Back Office	-	0.1	0.7	0.7	0.3	-	0.4	2.3	2.7	-		
4		Standardized Metering & Meter Shop Setup	0.0	0.3	0.0	0.3	0.3	-	0.1	-	0.1	-		
5		AMI Implementation Program	-	0.2	0.1	0.3	-	-	0.0	-	0.0	-		
6		Programs <5% of Portfolio Total	0.1	0.1	0.2	0.4	0.1	-	0.9	-	0.9	-		
7	**Distribution**		**$ 10.0**	**$ 1.8**	**$ 0.1**	**$ 11.8**	**$ 8.3**	**$ 2.0**	**$ 3.4**	**$ 0.0**	**$ 5.4**	**$ 2.4**	**$ 6.4**	**54%**
8		Distribution Line Rebuild	4.1	0.3	-	4.4	2.8	1.6	-	0.0	1.6	1.3		
9		Distribution Pole and Conductor Repair	4.3	-	-	4.3	4.3	0.1	3.4	-	3.5	0.8		
10		Distribution Automation	0.6	1.3	0.0	1.9	-	0.0	-	-	0.0	0.0		
11		Distribution Lines Inspection	1.0	0.2	0.1	1.3	1.3	0.3	-	-	0.3	0.3		
12		Programs <5% of Portfolio Total	-	-	-	-	-	-	-	-	-	-		
13	**Transmission**		**$ 8.8**	**$ 0.1**	**$ 0.1**	**9.0**	**$ 6.3**	**$ 0.9**	**$ -**	**$ 0.0**	**$ 0.9**	**$ 0.7**	**$ 8.1**	**90%**
14		IT OT Telecom Systems & Network	3.8	-	-	3.8	3.8	0.5	-	0.0	0.5	0.5		
15		Transmission Line Rebuild	2.6	-	-	2.6	0.3	0.3	-	0.0	0.3	0.1		
16		Transmission Priority Pole Replacements	2.3	-	-	2.3	2.0	0.1	-	-	0.1	0.1		
17		Programs <5% of Portfolio Total	0.2	0.1	0.1	0.4	0.3	-	-	-	-	-		
18	**Substations**		**$ 4.5**	**$ 0.9**	**$ 0.3**	**$ 5.7**	**$ 3.2**	**$ 3.6**	**$ 0.1**	**$ 0.4**	**$ 4.1**	**$ 0.8**	**$ 1.6**	**28%**
19		Transmission Substation Rebuilds	1.2	0.4	0.1	1.7	1.0	0.4	0.1	-	0.5	0.1		
20		Distribution Substation Rebuild	1.3	0.1	-	1.3	0.8	0.1	-	-	0.1	0.0		
21		Transmission Substation Reliability Improvements	0.9	0.1	-	1.0	-	1.2	-	-	1.2	-		
22		Transmission Substation Security	0.6	0.0	0.1	0.8	0.8	0.4	0.0	0.4	0.8	-		
23		Compliance & Studies	0.3	0.2	0.1	0.6	0.5	1.4	-	-	1.4	0.7		
24		Programs <5% of Portfolio Total	0.2	0.2	-	0.4	0.1	0.2	-	-	0.2	-		
25	**Control Center & Buildings**		**$ 2.0**	**$ 0.8**	**$ 1.7**	**$ 4.5**	**$ 4.0**	**$ 0.8**	**$ 0.6**	**$ 1.3**	**$ 2.7**	**$ 2.6**	**$ 1.8**	**39%**
26		Facilities Development & Implementation	2.0	0.7	1.3	4.0	3.6	0.2	0.6	0.1	0.9	0.8		
27		Critical Energy Management System Upgrades	0.0	0.0	0.1	0.1	0.1	0.4	0.0	-	0.4	0.4		
28		Control Center Construction & Refurbishment	0.0	-	-	0.0	0.0	0.2	-	-	0.2	0.2		
29		Programs <5% of Portfolio Total	-	-	0.4	0.4	0.3	-	-	1.2	1.2	1.2		
30	**Enabling**		**$ 4.0**	**$ 5.6**	**$ 24.4**	**$ 33.9**	**$ 28.7**	**$ 3.2**	**$ 6.3**	**$ 35.7**	**$ 45.2**	**$ 40.2**	**$ (11.2)**	**-33%**
31		Vegetation Management	-	-	12.5	12.5	12.5	-	-	13.6	13.6	13.6		
32		T&D Fleet	0.1	1.2	7.5	8.8	8.8	0.0	1.1	7.7	8.8	8.8		
33		Capital Programs, PMO & Funding Management Office Setu	2.9	0.1	-	3.0	-	3.0	0.5	-	3.5	-		
34		Tools Repair & Management	-	2.7	-	2.7	2.7	-	3.3	-	3.3	3.3		
35		HSEQ and Technical Training	-	-	2.5	2.5	2.5	-	-	13.9	13.9	13.9		
36		Programs <5% of Portfolio Total	1.0	1.6	1.9	4.5	2.2	0.2	1.4	0.5	2.1	0.6		
37	**Support Services**		**$ 0.1**	**$ 1.8**	**$ 22.8**	**$ 24.7**	**$ 4.5**	**$ 0.2**	**$ 4.5**	**$ 18.3**	**$ 23.0**	**$ 5.0**	**$ 1.7**	**7%**
39		Renewables integration, minigrids and generation studies	-	-	2.4	2.4	-	-	-	0.7	0.7	-		
38		HR Programs	-	0.1	15.8	15.9	0.1	-	-	16.9	16.9	0.4		
40		IT OT Asset Management	0.1	0.0	0.0	0.2	0.1	0.2	-	-	0.2	0.2		
41		Programs <5% of Portfolio Total	-	1.7	4.6	6.3	4.2	-	4.5	0.7	5.2	4.4		
42	**Total**		**$ 33.5**	**$ 11.6**	**$ 50.4**	**$ 95.6**	**$ 56.8**	**$ 15.9**	**$ 16.4**	**$ 58.0**	**$ 90.2**	**$ 56.8**	**$ 5.3**	**6%**

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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$80.0**	**$4.0**	**$5.1**	**($1.1)**	**28%**	**Key Activities** • Field assessments initiated. • The procurement process was initiated for distribution streetlight repairs. • An Initial SOWs and Level 5 Cost Estimate for the work under this program was submitted to the Energy Bureau on August 30, 2021 and approved on September 22, 2021. • Started defining smart streetlighting strategy. **Variance** • This program is current above budget primarily because the use of PREPA's contracts with a higher cost structure than was budgeted. **Timeline** • Streetlight assessments were started early in Q1 and will continue through Q2. • Continue to be on track for SRP milestones.
Federally Funded	$80.0	$4.0	$5.1	($1.1)		
Non-Federally Funded	-	-	-	-		
OpEx	-	-	-	-		
SRP	$25.0	$1.3	$5.1	-$3.9		

BILLING ACCURACY AND BACK OFFICE

This program includes updates to bill print and delivery and other back-office systems to improve issuance 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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$14.6**	**$0.7**	**$2.7**	**($2.0)**	**-286%**	**Key Activities** • Established meter shop in existing LUMA building. • Adjusted bill design and performed CC&B programming updates to reflect new requirements ordered by PREB. • Evaluating potential solutions for back-office service order processing & manual service order work • Third-Party resources utilized to modify CC&B severance process due to the Governor's Executive Order (OE-2020-023) limiting disconnections for non-payment. • As significant issues in CC&B were identified a team was established to address billing issues, critical reporting needs and user role / related functionality challenges. **Variance** • Variance during this period is mainly due to additional activity to ensure smooth transition to outsourced bill print and delivery as well as activities to assess the current security, control, and reporting configurations of Oracle CC&B which has taken significant time and resources to address. These activities are foundational for future improvements. **Timeline** • On track to achieve roll out of the bill redesign and removal of old equipment by Q4, subject to PREB approval timeline.
Federally Funded	-	-	-	-		
Non-Federally Funded	$1.4	$0.1	$0.4	($0.3)		
OpEx	$13.2	$0.7	$2.3	($1.6)		
SRP	$5.0	$0.3	-	($0.3)		

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	Q1 Budget	Q1 Actuals	Q1 Variance (S)	Q1 Variance (%)	Status
Program Total	**$6.3**	**$0.3**	**$0.1**	**$0.2**	**67%**	**Key Activities** • Established meter shop in existing LUMA building. • Recovered all testing equipment from offices and relocated to the meter shop. • Processing recovered meters within meter shop and returning to inventory for reuse. **Variance** • The purchases for setting up the meter shop were slower than anticipated due to the significant efforts required to prepare the building for the new equipment and reasonable working conditions. • The existing facilities were extremely deteriorated and took longer than anticipated to "make ready" **Timeline** • On track to establish meter shop building & purchase test equipment in Q4.
Federally Funded	$0.3	$0.0	-	$0.0		
Non-Federally Funded	$5.7	$0.3	$0.1	$0.2		
OpEx	$0.3	$0.0	-	$0.0		
SRP	$5.9	$0.3	-	$0.3		

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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$6.1**	**$0.3**	**$0.04**	**$0.26**	**87%**	**Key Activities** • Efforts are underway to pursue federal funding. AMI Implementation is in the documentation phase including development of Initial SOWs and Class 5 Cost Estimates. • Submitted information to COR3 to support potential funding applications for FEMA 404 Hazard Mitigation funding and also to Vivienda to support potential funding from the Department of Housing and Urban Development's (HUD) Community Development Block Grant Disaster Recovery (CDBG-DR) program. **Variance** • Variance is mainly due to a reduced amount of work necessary to advance the AMI program with COR3/Vivienda as LUMA explores opportunities for federal funding for this program. **Timeline** • Not an SRP program.
Federally Funded	-	-	-	-		
Non-Federally Funded	$4.1	$0.2	$0.04	$0.26		
OpEx	$2.0	$0.1	-	$0.1		
SRP	-	-	-	-		

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	Q1 Budget	Q1 Actuals	Q1 Variance (S)	Q1 Variance (%)	Status
Program Total	**$87.2**	**$4.4**	**$1.6**	**$2.8**	**64%**	**Key Activities** • Initial SOWs and Level 5 Cost Estimates were submitted to the PREB on July 8, 2021 and August 30, 2021 and approved by the PREB on August 20, 2021 and September 22, 2021, respectively. • 21 projects were initiated with FEMA on August 26, 2021 and FAASt numbers were assigned on September 7, 2021; September 8,2021; September 9, 2021; and September 10, 2021. • A&E firms identified and assigned feeder rebuild projects. • Determined out of service assets for distribution line and distribution equipment (e.g., reclosers, capacitor banks etc.). **Variance** • Variance is mainly due timing of activities with A&E firms starting later than originally anticipated based on lack of progress prior to commencement. **Timeline** • On track to start assessment & reliability process second half of FY2022.
Federally Funded	$81.7	$4.1	$1.6	$2.5		
Non-Federally Funded	$5.5	$0.3	-	$0.3		
OpEx	-	-	-	-		
SRP	$55.5	$2.8	$1.3	$1.5		

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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$85.1**	**$4.3**	**$3.5**	**$0.8**	**19%**	**Key Activities** • High level field assessments to determine safety, reliability and hosting capacity concerns of the distribution lines were initiated in Q1. • Pole and conductor repairs started in Q1. • Construction RFP developed in Q1; will be released in Q2. • Initial SOWs and Level 5 Cost Estimate for the work under this program was submitted on August 30, 2021 and approved by PREB on September 22, 2021. • Over 1,000 distribution poles have been replaced **Variance** • Variance in federally funded work is mainly due timing of activities with A&E firms starting later than originally anticipated based on lack of progress prior to commencement. • Variance in non-federally funded work is due to work performed to safety/reliability sensitive infrastructure that required immediate attention. **Timeline** • No expected variance in milestones.
Federally Funded	$85.1	$4.3	$0.1	$4.2		
Non-Federally Funded	-	-	$3.4	($3.4)		
OpEx	-	-	-	-		
SRP	$85.1	$4.3	$0.8	$3.5		

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	Q1 Budget	Q1 Actuals	Q1 Variance (S)	Q1 Variance (%)	Status
Program Total	**$38.9**	**$1.9**	**$0.04**	**$1.86**	**98%**	**Key Activities** • Focused on creating conceptual designs including studies to assist in determining locations for intelligent switches and reclosers. • Currently assessing 51 out of service reclosers for repair and redeploy to focus on worse performing feeders. • Currently in the competitive procurement process for a multi-year agreement to secure reclosers and trip savers. **Variance** • Variance is mainly due to the timing of the procurement process which is currently underway. **Timeline** • Not an SRP program.
Federally Funded	$12.7	$0.6	$0.04	$0.56		
Non-Federally Funded	$26.0	$1.3	-	$1.3		
OpEx	$0.3	$0.0	-	$0.0		
SRP	-	-	-	-		

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	Q1 Budget	Q1 Actuals	Q1 Variance (S)	Q1 Variance (%)	Status
Program Total	**$25.3**	**$1.3**	**$0.3**	**$1.0**	**77%**	**Key Activities** • Refined assessment guidelines and criteria. • A high-level assessment underway to determine safety, major reliability, and obvious capacity concerns of the distribution lines. • Developed methodology for grouping and prioritizing deficiencies. • Issued RFP for Preliminary Engineering Data Collection. **Variance** • Variance is mainly due to the timing of the procurement process which is currently underway. **Timeline** • Inspections, assessments, and reliability process we initiated early in Q1, which was earlier than planned, and will continue through Q2. • No expected variance in milestones.
Federally Funded	$19.7	$1.0	$0.3	$0.7		
Non-Federally Funded	$3.8	$0.2	-	$0.2		
OpEx	$1.8	$0.1	-	$0.1		
SRP	$25.3	$1.3	$0.3	$1.0		

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	Q1 Budget	Q1 Actuals	Q1 Variance (S)	Q1 Variance (%)	Status
Program Total	**$134.7**	**$3.8**	**$0.5**	**$3.3**	**87%**	**Key Activities** • Developed initial SOWs documents for Mobile Voice Systems, Enterprise Voice Systems, and Telecom Backbone Modernization. • Engaged with key stakeholders to define roles and responsibilities. • 6 Initial SOWs and Level 5 Cost Estimates were submitted to the PREB on August 30, 2021 and approved by the PREB on September 22, 2021. • 4 projects were initiated with FEMA on September 24, 2021. **Variance** • Variance is mainly due time required for LUMA to define and finalize the planning phase of the program which is longer than anticipated. **Timeline** • No expected variance in milestones.
Federally Funded	$134.6	$3.8	$0.5	$3.3		
Non-Federally Funded	-	-	-	-		
OpEx	$0.1	-	-	-		
SRP	$134.7	$3.8	$0.5	$3.3		

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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$52.0**	**$2.6**	**$0.3**	**$2.3**	**88%**	**Key Activities** • Established guidelines, prioritization and scoring criteria to drive high-level inspections of 108 230kV and 115kV lines and 263 38kV lines with the goal of identifying and converting safety and major reliability concerns into manageable projects for subsequent remediation. • Revised Engineering and Design Standards to, among other requirements, withstand 160 mph winds gusts, in advance of releasing an RFP. • Defined priority 44 transmission lines to rebuild and started to formalize criteria to determine additional line rebuild requirements. • Commenced engineering and design activities and started to develop RFP for construction contracts. • 6 Initial SOWs and Level 5 Cost Estimates were submitted to the PREB on July 8, 2021 and approved by the PREB on August 20, 2021. • 4 Initial SOWs and Level 5 Cost Estimates were submitted to the PREB on August 30, 2021 and approved by the PREB on September 22, 2021. • 6 projects were initiated with FEMA on August 26, 2021and FAASt numbers were assigned on September 8, 2021 and September 10, 2021. **Variance** • Variance in federally funded work is mainly due timing of activities with A&E firms starting later than originally anticipated based on lack of progress prior to commencement. **Timeline** • Inspection process was initiated early in Q1, which was earlier than planned, and will continue through Q2. • No expected variance in milestones.
Federally Funded	$52.0	$2.6	$0.3	$2.3		
Non-Federally Funded	-	-	-	-		
OpEx	-	-	-	-		
SRP	$5.0	$0.3	$0.1	$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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$46.1**	**$2.3**	**$0.1**	**$2.2**	**96%**	**Key Activities** • Started scoping activities, based on observed conditions from high-level assessments of pre-identified list of transmission lines to be rebuilt. • Started prioritization of all transmission lines based on criticality and reliability. • Started forwarding projects (packages) to Engineering and Vegetation Management for review and disposition. • 3 Initial SOWs and Level 5 Cost Estimates were submitted to the PREB on August 30, 2021 and approved by the PREB on September 22, 2021. **Variance** • Variance in federally funded work is mainly due timing of activities with A&E firms starting later than originally anticipated based on lack of progress prior to commencement. **Timeline** • No expected variance in milestones.
Federally Funded	$46.1	$2.3	$0.1	$2.2		
Non-Federally Funded	-	-	-	-		
OpEx	-	-	-	-		
SRP	$40.0	$2.0	$0.1	$1.9		

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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$33.6**	**$1.7**	**$0.5**	**$1.2**	**71%**	**Key Activities** • Established guidelines, prioritization and scoring criteria to drive high-level inspections of the 18 substations required to be relocated or rebuilt. • Worked with team to refine what differentiates an SRP substation repair (i.e., one that mitigates an imminent failure and / or major safety items) from one that that is non-SRP related, as well as established criteria for expanding (if appropriate) the scope to include the rebuild of transmission substations beyond those already identified. • Started high-level inspections to assess, prioritize and plan the remediation work with the goal of converting safety and major reliability concerns into manageable projects for subsequent remediation. • Prepared Initial SOWs and level 5 cost estimates to be submitted to PREB in Q2. **Variance** • Variance in federally funded work is mainly due timing of activities with A&E firms starting later than originally anticipated based on lack of progress prior to commencement. • Variance in non-federally funded work is mainly due to timing of the high-level inspection process. **Timeline** • On track to initiate substation inspections earlier than expected.
Federally Funded	$24.0	$1.2	$0.4	$0.8		
Non-Federally Funded	$7.0	$0.4	$0.1	$0.3		
OpEx	$2.6	$0.1	-	$0.1		
SRP	$20.6	$1.0	$0.1	$0.9		

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	Q1 Budget	Q1 Actuals	Q1 Variance (S)	Q1 Variance (%)	Status
Program Total	**$26.0**	**$1.3**	**$0.1**	**$1.2**	**92%**	**Key Activities** • Established guidelines, prioritization and scoring criteria to drive high-level inspections of all distribution substations. • Worked with team to refine what differentiates an SRP substation repair (i.e., one that mitigates an imminent failure and / or major safety items – 0/1 asset health) from one that is non-SRP related. • Started high-level inspections (prioritized by substation criticality) to assess, prioritize and plan the remediation work with the goal of converting safety and major reliability concerns into manageable projects for subsequent remediation. • Prepared Initial SOWs and level 5 cost estimates to be submitted to the PREB in Q2. **Variance** • Variance in federally funded work is mainly due timing of activities with A&E firms starting later than originally anticipated based on lack of progress prior to commencement. **Timeline** • No expected variance in milestones.
Federally Funded	$25.0	$1.3	$0.1	$1.2		
Non-Federally Funded	$1.0	$0.1	-	$0.1		
OpEx	-	-	-	-		
SRP	$15.0	$0.8	0.0	$0.8		

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.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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$19.8**	**$1.0**	**$1.2**	**($0.2)**	**-20%**	**Key Activities** • Started to plan the replacement of aging high voltage infrastructure such as transformers, circuit breakers, and other high voltage equipment, including switches, potential transformers, arrestors, etc. that are deemed end of life and have poor condition assessment ratings. • Started formulation of a risk-based asset lifecycle modeling to set the stage for incorporating more detailed asset health and condition information to storm harden the system and / or identify / prioritize replacement of assets deemed at “end-of-life” or as having poor condition assessment ratings. • Focused on a review of historical records of substation-caused outages to inform replace vs. repair decisions regarding high-voltage equipment in substations, and ultimately leading to more modernized protection and control. • Initiated replacement of infrastructure that could easily be completed during initial assessments like putting existing onsite infrastructure into service or replacing circuit breakers. **Variance** • Variance in federally funded work is mainly due timing of activities with A&E firms starting later than originally anticipated based on lack of progress prior to commencement. **Timeline** • Not an SRP program.
Federally Funded	$17.0	$0.9	$1.2	($0.3)		
Non-Federally Funded	$2.8	$0.1	-	$0.1		
OpEx	-	-	-	-		
SRP	-	-	-	-		

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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$16.1**	**$0.8**	**$0.8**	**$0.0**	**0%**	**Key Activities** • Identified 19 critical sites; initial padlocks (150) ordered and installed by September 30, 2021. • Cleaning and vegetation management activities are ongoing in substation yards, substation light replacements initiated, and required signage at substation has been identified. • Removed 57,750 gallons of garbage from the 19 critical sites. **Variance** • No material variance. **Timeline** • Prioritization of sites initially estimated to be completed in Q2 and has been completed in Q1.
Federally Funded	$12.9	$0.6	$0.4	$0.2		
Non-Federally Funded	$0.6	$0.0	$0.0	$0.0		
OpEx	$2.6	$0.1	$0.4	($0.3)		
SRP	$15.2	$0.8	-	$0.8		

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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$11.3**	**$0.6**	$1.4	**($0.8)**	**-133%**	**Key Activities** • Started distribution studies focused on eliminating major cascading outages caused by a lack of proper coordination of protective devices. • Started engineering studies and planning criteria to identify current infrastructure issues and new infrastructure needs. • Started development of new standards and procedures to ensure that distribution and transmission lines and substations comply with applicable codes and standards. • Started grounding studies and tests to ensure substations meet proper grounding requirements. **Variance** • Variance is mainly due to additional effort in advancing studies, procedures and standards in support federally funded and non-federally project work. **Timeline** • Soil resistivity tests and distribution studies were started as planned in Q1. • No expected variance in milestones.
Federally Funded	$6.3	$0.3	$1.4	($1.1)		
Non-Federally Funded	$3.3	$0.2	-	$0.2		
OpEx	$1.7	$0.1	-	$0.1		
SRP	$10.0	$0.5	$0.7	($0.2)		

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 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	Q1 Budget	Q1 Actuals	Q1 Variance (S)	Q1 Variance (%)	Status
Program Total	**$16.3**	**$4.0**	**$0.9**	**$3.1**	**78%**	**Key Activities** • Replacement and repair of HVAC systems, acquisition and repair of generators, and replacement and repair of water cistern devices. • Approval of designs for regional contact centers, and release and review of construction and furniture bids. • Review of furniture assets and sorting and staging of assets. • 8 Initial SOWs and Level 5 Cost Estimates were submitted to the PREB on August 30, 2021. **Variance** • Variance on federally funded work is mainly due to reduced effort required to undertake related work to advance the SOWs with COR3/FEMA. • No material variance on the non-federally funded work. **Timeline** • No expected variance in milestones.
Federally Funded	$7.8	$2.0	$0.2	$1.8		
Non-Federally Funded	$3.0	$0.7	$0.6	$0.1		
OpEx	$5.4	$1.3	$0.1	$1.2		
SRP	$14.8	$3.6	$0.8	$2.8		

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, 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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$1.0**	**$0.1**	**$0.4**	**($0.3)**	**-300%**	**Key Activities** • Kicked off procurement for vendor; issued and received responses to initial Request for Information • Initiated development of the EMS RFP. • The Initial SOW and Level 5 Cost Estimate for Critical Energy Management System Upgrade was submitted to the PREB on August 30, 2021 and approved by the PREB on September 22, 2021. • The project was initiated with FEMA on September 24, 2021. **Variance** • Variance is mainly due to the accelerated EMS implementation schedule to address the critical need for replacing the EMS. **Timeline** • No expected variance in milestones.
Federally Funded	$0.5	$0.0	$0.4	($0.4)		
Non-Federally Funded	$0.2	$0.0	$0.0	$0.0		
OpEx	$0.3	$0.1	-	$0.1		
SRP	$0.7	$0.1	$0.4	($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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$1.0**	**$0.0**	**$0.2**	**($0.2)**	**-200%**	**Key Activities** • Defined the Control Center building criteria in a Basis of Design document. • Identified the site requirements and location criteria to be used to identify site options that will be evaluated for the Primary and Secondary Control Center buildings. • Development of RFP documents for the Design Team of Record (A&E Professional Team). • Initial SOWs and Level 5 Cost Estimate for Critical Energy Management System Upgrade was submitted to the PREB on August 30, 2021 and approved by the PREB on September 22, 2021. • The project was initiated with FEMA on September 24, 2021. **Variance** • No material variance. Spending related to above noted activities in order to advance the development of the Program. **Timeline** • No expected variance in milestones.
Federally Funded	$1.0	$0.0	$0.2	($0.2)		
Non-Federally Funded	-	-	-	-		
OpEx	-	-	-	-		
SRP	$1.0	$0.0	$0.2	($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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$50.0**	**$12.5**	**$13.6**	**($1.1)**	**-9%**	**Key Activities** • Assumed existing vegetation management contracts and carried out initial procurement process consistent with Vegetation Management Plan. • Submitted new contract to P3 Authority for approval in late July. • Responded to over 1,075 operations vegetation-related requests. • Completed all vegetation management work on the Federal Aviation Administration line within El Yunque National Park, which also provides service to multiple important telecommunications towers. • Developed and started implementation of the substation vegetation control program, including clearing vegetation from 120 substation sites, and applying bare ground treatment at 88 substation sites (work not originally contemplated in the initial creation of the Program Brief). **Variance** • Variance is mainly due to increased work associated with backlog of vegetation related outages and remedial clearing of substations. **Timeline** • No expected variance in milestones.
Federally Funded	-	-	-	-		
Non-Federally Funded	-	-	-	-		
OpEx	$50.0	$12.5	$13.6	($1.1)		
SRP	$50.0	$12.5	$13.6	($1.1)		

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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$48.4**	**$8.8**	**$8.8**	**-**	**0%**	**Key Activities** • Commenced inspecting / addressing remediation issues required to bring Fleet into compliance with regulations and standards required by the USDOT, OSHA, and ANSI. • Started to bring repair and maintenance facilities up to industry standards. • Inventoried and started process to right size the fleet, making initial purchases and rentals to fill critical gaps, and established initial contracts with outside vendors for repair activities. Entering Q2, there are still 894 vehicles unaccounted for, a reduction from approximately 2,000 at Commencement. • Conduct initial training of Fleet employees. • Started branding of Fleet Assets. **Variance** • No material variance. **Timeline** • 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	$0.1	-	$0.1		
Non-Federally Funded	$23.6	$1.2	$1.1	$0.1		
OpEx	$23.2	$7.5	$7.7	($0.2)		
SRP	$48.4	$8.8	$8.8	-		

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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$11.8**	**$3.0**	**$3.5**	**($0.5)**	**-17%**	**Key Activities** • Began the implementation of LUMA's Project Management framework for: 1. Developing project management processes, procedures, tools, templates, and governance; 2. Initiating, planning, and executing T&D infrastructure projects; and 3. Establishing administration support, controls, and communication with FEMA and COR3. • Developed initial Capital Programs training plan, syllabus, and manuals to implement tools for project portfolio management, scheduling, cost control, contract administration and reporting. • Implemented core PMO process for managing capital projects. • Established initial document control processes from initial identification through to transmittal / filing documents required for capital programs. **Variance** • Variance is mainly due to increased focus to establish the Project Management framework throughout the Capital Programs team as soon as possible. **Timeline** • Not an SRP program.
Federally Funded	$11.5	$2.9	$3.0	($0.1)		
Non-Federally Funded	$0.3	$0.1	$0.5	($0.5)		
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	Q1 Budget	Q1 Actuals	Q1 Variance (S)	Q1 Variance (%)	Status
Program Total	**$10.9**	**$2.7**	**$3.3**	**($0.6)**	**-22%**	**Key Activities** • Inventoried and assessed the condition of tools and PPE. • Purchased required PPE to support current field staffing levels. • Addressed critical tool inventory gaps (Hot-sticks, rubber goods, grill, presses, ground chains, etc.) through purchases. **Variance** • Variance is mainly due to higher than anticipated expenditures due to a lack of tools and PPE present at commencement. • Significant tool purchases were required at the start of Fiscal Year 2022. Majority of the budget anticipated be spent in Q1 and Q2 with minimized spending in Q3 and Q4 as upfront tool purchases enables work and are not consumed within one year. **Timeline** • No expected variance in milestones.
Federally Funded	-	-	-	-		
Non-Federally Funded	$10.9	$2.7	$3.3	($0.6)		
OpEx	-	-	-	-		
SRP	$10.9	$2.7	$3.2	($0.6)		

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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$9.9**	**$2.5**	**$13.9**	**($11.4)**	**-456%**	**Key Activities** • Initiated the safety and technical training program by conducting over 50 training classes including but not limited to: OSHA ET&D 10-hour training; CPR/First aid, Power Switching, Substation Entry, Apprentice, Human External Cargo, Rigging, Upskilling Utility Lineworkers, Bucket, Crane and On-the-job training; 7 steps for electrical safety; and substation entry. • Brought in experienced, skilled temporary workers to provide mentorship and training for line and substation field crew • Collaborated with LUMA College on curriculum and apprenticeship program. • Continued planning with internal safety and technical training team to develop schedule for onboarding and initial technical skills assessment. **Variance** • Variance is mainly due to the significant increase in training and mentoring than anticipated as a result of a substantial gap in safety & technical skills **Timeline** • LUMA identified a need to accelerate and expand the safety & technical training program based on the skills level assessed confirmed as of June 1. On-going assessments will be required to determine whether the overall timeline to achieve the SRP Remediated State will require adjustment.
Federally Funded	-	-	-	-		
Non-Federally Funded	-	-	-	-		
OpEx	$9.9	$2.5	$13.9	($11.4)		
SRP	$9.9	$2.5	$13.9	($11.4)		

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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$63.5**	**$15.9**	**$16.9**	**($1.0)**	**-6%**	**Key Activities** • Implemented Human Capital Management Software to streamline HR processes across LUMA to manage employee information. • Completed roll-out of employee benefits including the Health and Wellness program and Competitive 401k Plan. • Developed and implemented compliance training. • Received and screened 24,814 applications, conducted approximately 1700 interviews, hosted approximately 25 onboarding sessions. • Onboarded over 500 new employees. **Variance** • OpEx variance mainly due to increased training requirements identified. • SRP variance due to a large portion of the core compliance training activities were completed in Q1 and that training makes up a large portion of the budgeted SRP. **Timeline** • No expected variance in milestones.
Federally Funded	-	-	-	-		
Non-Federally Funded	$0.3	$0.1	-	$0.1		
OpEx	$63.3	$15.8	$16.9	($1.1)		
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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$9.7**	**$2.4**	**$0.7**	**$1.7**	**71%**	**Key Activities** • Interconnection capacity map for distributed solar energy was issued to the public on schedule (Sep 30, 2021). • Demand Response Quick Start Program Planning, Energy Efficiency Quick Start Program Planning, and 3-year Plan Planning Activities. • Participated on PREB's technical conferences. • Initiated offshore wind generation study in collaboration with DOE and NREL. • Benchmarked minimum technical requirements for interconnection using other US states and territories. • Developed deliverability-based optimal location process for the transmission network based on curated power system simulation for engineering transmission adequacy and reliability assessment files and process for optimal distribution power flow model configuration and study process. **Variance** • Variance is mainly due to the timing to work through the detailed processes required for the interconnection of renewables. **Timeline** • Not an SRP program.
Federally Funded	-	-	-	-		
Non-Federally Funded	-	-	-	-		
OpEx	$9.7	$2.4	$0.7	$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	Q1 Budget	Q1 Actuals	Q1 Variance ($)	Q1 Variance (%)	Status
Program Total	**$5.5**	**$0.2**	**$0.2**	**$0.0**	**0%**	**Key Activities** • Successfully implemented multiple technology projects in support of our LUMA teams as outlined below. • Implemented solutions to enable customer payments at regional offices directly contributing to revenue and cash flow management. • Initiated the OMS stabilization process and team to improve LUMA's ability to respond to and report on outages. • Stabilized the OMS focusing on environment, data, and business operations. • Developed and deployed map migration process from G/Technology to OMS. • Installed map board at the Control Center for situational awareness. • Initiated the application modernization roadmap focused on asset and work order management capabilities. **Variance** • No material variance. **Timeline** • No expected variance in milestones.
Federally Funded	$4.3	$0.1	$0.2	($0.1)		
Non-Federally Funded	$1.1	$0.0	-	$0.0		
OpEx	$0.1	$0.0	-	$0.0		
SRP	$4.0	$0.1	$0.2	($0.1)		

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 specific program updates for details of the work on these programs. As part of these efforts, LUMA concluded the first quarter of fiscal year 2022 having established a substantial pipeline of federal funding work including:

- 132 Projects/Programs Initial Scopes of Work representing an estimated $7.4 billion in reconstruction work that are being advanced within LUMA;
- Of the 132 Projects/Programs, PREB received 94 Projects/Programs for its review and approval to date;
- Of the 94 Projects/Programs, PREB approved 86 Projects/Programs representing $6.7 billion in reconstruction activities. (Note the remaining eight projects (i.e., 94 – 86 = 8 projects were approved by PREB on October 14 pursuant to a Technical Conference);
- The remaining 38 Projects/Programs (i.e., 132 – 94 = 38 projects) were approved by PREB on October 18.
- As per the established process, upon receiving PREB approval, LUMA sought the review and establishment of FAASt project numbers from FEMA for each project. As at the end of Q1, LUMA had received 65 FEMA FAASt project numbers representing $2.8 billion in reconstruction activities.

In addition to undertaking the work necessary to establish the pipeline of projects noted above, LUMA undertook the following activities:

- Worked closely with COR3 and FEMA to understand the expectations as it relates to LUMA's submission of Detailed Statement of Works – the next step in the FEMA process towards approval of construction activities. This work included substantial discussions related to EHP and 406 Hazard Mitigation Grant Program expectations;
- Provided training to new LUMA employees on project governance structure and systems for execution of projects;
- Assigned preliminary engineering within the capacity of current A&E contracts for 33 projects representing ~$1 billion. This work is imperative in the development of the Detailed Statement of Works – most expected to be submitted to COR3/FEMA throughout 2022.
- Initiated procurement processes for additional A&E services, distribution construction services, and streetlight construction services.
- Submitted information to COR3 to support potential funding applications for FEMA 404 Hazard Mitigation funding and also to Vivienda to support potential funding from the HUD from the CDBG-DR program,

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 September 30th, 2021

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

Project Status	Number of Projects	Estimated Amount
Initial SOWs (Projects/Programs) Under Development	38	$0.7
Projects/Programs Pending PREB Approval (1)	8 (1)	$0.1
Projects/Programs approved by PREB and submitted to COR3/FEMA for review and assignment of FEMA FAASt number	21	$3.8
Projects/Programs approved by PREB with receipt of FEMA FAASt number with 33 projects assigned to A&E firms	65	$2.8
Submission of Detailed Scope of Work to FEMA enabling detailed engineering and construction	0	$0.0
Total	**132**	**$7.4**

Notes:
- Approved October 14, 2021

Table 4-2 below outlines federal funding by source and status table for future reference. As of September 30, 2021, LUMA has not sought reimbursement of federal funds due to the early development stage of project work and as we work through the request for reimbursement process details with COR3/FEMA.

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

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

Appendix B: 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 between PREPA, P3 Authority and LUMA effective June 1, 2021 (the SSA). The purpose of these services is to enable PREPA Generation to continue independent operation during the period (the "Shared Services Period") after LUMA began operation of the T&D system but before the planned independent operator(s) assume responsibility and control of the legacy assets.

Under the SSA LUMA provides 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.
- 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, Budget reporting, 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 $54.7M; 91.2% of this budget ($49.9M) 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, $4.8M (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 4-3. Shared Services ($ millions)

	Approved FY 2022 Budget	Revised FY 2022 Budget	Revised Q1 Budget	Q1 Actuals	Variance ($)	Variance (%)
Labor	12.5	4.8	1.2	0.4	0.8	
Property & Casualty Insurance	40.5	41.5	10.4	12.3	(1.9)	
Security	10.0	-	-	-	-	
IT Service Agreements	7.5	7.6	1.9	1.4	0.5	
Utilities & Rents	3.6	-	-	-	-	
Other	4.0	0.8	0.2	-	0.2	
Subtotal	**$78.0**	**$54.7**	**$13.7**	**$14.1**	**($0.4)**	**(3%)**
2% Reserve for Excess Expenditures	1.6	1.1	0.3	-	0.3	
Shared Services Total	**$79.6**	**$55.8**	**$14.0**	**$14.1**	**($0.1)**	**(1%)**

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 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.

During Q1 LUMA initiated the Shared Services activities under the SSA. In addition to performing the specific services LUMA's work included the following noteworthy milestones:

- In July in collaboration with PREPA Generation leadership, LUMA established a weekly management meeting and coordination process to identify and communicate Shared Services needs or issues among the parties, as well as provide a venue to address emergent LUMA-PREPA Generation interface concerns or needs (i.e., topics that are beyond the scope of the Shared Services but nevertheless points of mutual interest or concern).
- LUMA established a management role as the single-point-of-responsibility for all Generation Shared Services Operations activities performed by LUMA for PREPA across all of Puerto Rico. This role has successfully streamlined Operations-related communication between PREPA and LUMA, ensured resource availability, and coordinated Shared Services field work with PREPA related to planned and unplanned power plant outage events (especially in emergencies.)
- LUMA IT/OT, in collaboration with the remaining PREPA IT, is coordinating with a PREPA-led work prioritization process to ensure LUMA support for the planning and execution of non-routine IT initiatives based on PREPA's expressed needs and interests.

- In September LUMA and PREPA jointly initiated a monthly executive-level management meeting and process to identify and address enterprise-level Shared Services needs, issues, and concerns.