

Informe trimestral de LUMA Energy

Tercer trimestre del Año
Fiscal 2022
1 de enero – 31 de marzo
de 2022

16 de mayo de 2022



Estamos aquí para cumplir la misión con Puerto Rico

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



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

Este informe resume nuestras actividades clave para el tercer trimestre del Año Fiscal 2022 (del 1 de enero al 31 de marzo de 2022) LUMA se enfocó en aumentar la seguridad, el adiestramiento técnico, mejorar las comunicaciones con nuestros clientes y partes interesadas y poner en servicio instalaciones, equipos, líneas y subestaciones que han estado inoperantes desde antes de que comenzara el acuerdo de T&D.

<h2>Priorizar la seguridad</h2> <p>Estamos brindando a los trabajadores la capacitación que necesitan para ser efectivos mientras se mantienen seguros. Continuamos viendo mejoras en las métricas claves de seguridad, incluida una mejoría del 80% en la métrica relacionada con la gravedad de las lesiones.</p>	<h2>Reconstrucción y solidez del sistema</h2> <p>Estamos reparando los activos mas críticos de la red y avanzando en proyectos de capital financiados con fondos federales a través del diseño y la ingeniería.</p>	<h2>Mejorar la satisfacción del cliente</h2> <p>Continuamos creando nuevos canales para escuchar y responder a los clientes, incluyendo la interacción activa con los 78 municipios de Puerto Rico y mejoras en atención a los clientes en la aplicación de MILUMA.</p>	<h2>Excelencia Operacional</h2> <p>Aumentamos nuestra fuerza laboral a través de un enfoque amplio en la capacitación especializada y desplegamos nuestra fuerza laboral de manera mas eficiente y con mejoras en los procesos.</p>	<h2>Transformación sostenible</h2> <p>Continuamos apoyando la energía renovable en Puerto Rico activando conexiones de instalaciones solares y liderando iniciativas innovadoras, como los vehículos eléctricos.</p>
---	---	---	---	--

La misión para Puerto Rico

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



PRIORIZAR LA SEGURIDAD

Reformar las actividades del servicio público para promover una cultura robusta de seguridad enfatizando 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

Utilizar fondos federales de manera efectiva para rehabilitar la red y reforzar la solidez de las infraestructuras vulnerables



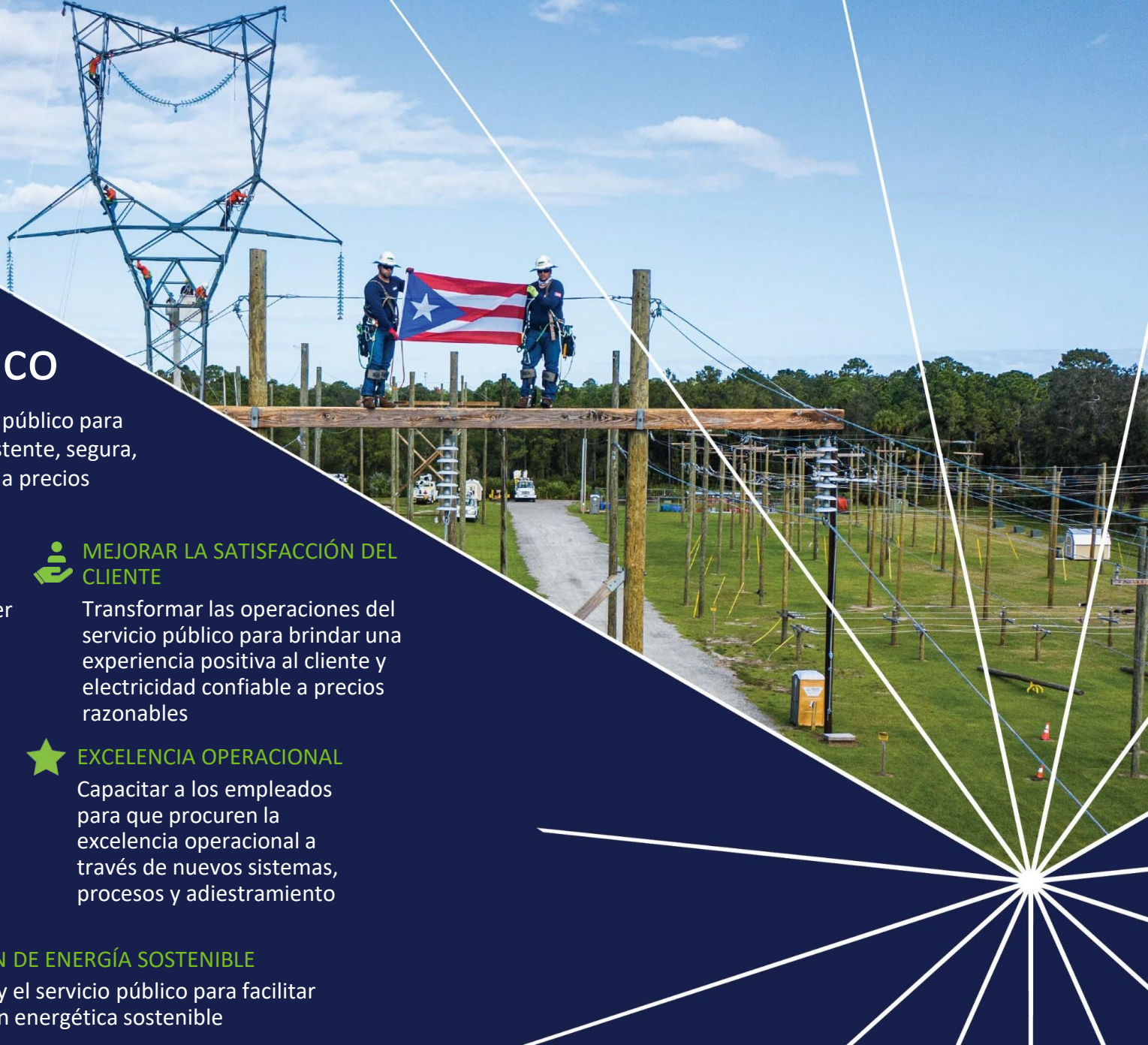
EXCELENCIA OPERACIONAL

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



La seguridad y el adiestramiento de los empleados

La máxima prioridad de LUMA es la seguridad, la salud y el bienestar de nuestros clientes, comunidades y nuestros más de 3,000 compañeros de trabajo. En el tercer trimestre, continuamos nuestros extensos programas de adiestramiento en salud y seguridad, medio ambiente, fabricación y cursos de capacitación técnica en LUMA College



La gente
primero y la
seguridad siempre

27,000 horas de tutorías, adiestramientos técnicos y de seguridad

Más de 70 cursos de seguridad en primeros auxilios, resucitación cardio-pulmonar, investigación de incidentes, entrada a espacios confinados y seguridad con la electricidad

13 sesiones de capacitación en seguridad pública a través de toda la isla con la participación de 287 empleados de LUMA, socorristas, empleados de empresas privadas y niños en edad escolar

En marzo 2022, LUMA implementó una campaña de estiramiento previo al trabajo con las brigadas de operaciones para prevenir lesiones a gran escala.

LUMA brindó adiestramientos del fabricante de equipos aéreos, de la flota ambiental y adiestramiento de la Administración de Seguridad y Salud Ocupacional (OSHA)

LUMA College impartió cursos de formación técnica incluyendo:

- Programa de celadores
- Mejoras de habilidades 1 & 2
- Operaciones de carga externa humana (HEC), operación de grúas, seguridad de carga y certificación del inspector mecánico del departamento de transporte de EU (USDOT), mantenimiento y reparación de unidades aéreas

Servicio al Cliente

Nuestros clientes merecen el mejor servicio y estamos decididos a ofrecer mejores actualizaciones, más información y tiempos de respuesta más rápidos. Todo lo que hacemos está centrado en nuestros clientes.



Mejorando la
respuesta al cliente

Lanzamiento de la **primera** factura con la marca de LUMA

Menos de 1 minuto el promedio de tiempo de respuesta en el tercer trimestre

Aumento de 10% en llamadas atendidas entre el segundo y tercer trimestre.

Más de 650,000 suscriptores registrados en la cuenta MiLUMA y más de **530,000** han descargado la aplicación MiLUMA desde el 1 de junio del año 2021

Más de 474,900 clientes han sido atendidos en los centros de servicio al cliente

Más de 78,000 respuestas a través de mensajes directos en Facebook, Twitter, Instagram and LinkedIn

Continuamos **mejorando en los tiempos de espera** en nuestros centros de servicio al cliente


Trabajos financiados con fondos federales de FEMA

LUMA está trabajando estrechamente con FEMA para crear un sistema eléctrico en todo Puerto Rico que sea más confiable, más resistente y que utilice más energía renovable. Juntos, estamos avanzando en el trabajo crítico financiado por el gobierno federal que logrará este objetivo.

\$355 millones en fondos federales para proyectos que fueron aprobados durante el tercer trimestre.

13 alcances de trabajo detallados fueron sometidos a FEMA lo que llevó el total a **14** proyectos sometidos para aprobación a finales del tercer trimestre

186 proyectos con la planificación fundamental completada, ingeniería y el alcance de trabajo que representa 6.7 billones de dólares en fondos federales



Planificación
para aprobación
y construcción



Fortaleciendo el
crecimiento
de la energía limpia

ÁREA DE CONTINUO ENFOQUE Y PROGRESO

Transformación de Energía Sostenible

LUMA apoya totalmente el crecimiento de la energía renovable a través de todo Puerto Rico- eso es lo que los puertorriqueños quieren y es lo que hacemos fomentar el crecimiento de energía limpia y renovable

Más de 5,900

clientes nuevos de medición
neta en el tercer trimestre

Completado

los Estudios de Puntos de
Interconexión de instalaciones y el
trabajo en estudios de actualización
de red para conectar proyectos de
generación y almacenamiento solar
a gran escala de servicios públicos

**Más de
21,000**

conexiones de generación
distribuida a medición neta que
representa **120 MW** de energía
renovable

Confiabilidad y Resiliencia

Estamos comprometidos a hacer mejoras de infraestructura todos los días y construir la red eléctrica de próxima generación que los puertorriqueños merecen.

745 postes reemplazados totalizando
aproximadamente **2,700** hasta la fecha

5,300 luminarias han sido reemplazadas de
las cuales **5,020** son LED

168 alimentadores evaluados

118 líneas de transmisión evaluadas

10 zonas de subestaciones evaluadas



Fortaleciendo
la Red Eléctrica

Preparación ante Emergencias

Estar preparados para emergencias como huracanes es una prioridad diaria y durante todo el año para LUMA. En el tercer trimestre LUMA colaboró con las partes interesadas y llevó a cabo diversas actividades de preparación en nuestro centro de control para garantizar que estamos preparados en todas las operaciones de la empresa

Continuamos en preparación para emergencias y fenómenos atmosféricos

Los adiestramientos para los empleados y los simulacros incluyen **2 ejercicios de mesa de preparación de emergencias**, uno con participantes internos y otro con agencias de Puerto Rico y federales

Más de 250 vehículos y equipo de seguridad disponible para ser utilizado en las operaciones diarias y la respuesta de emergencia.

Instaló equipos en el centro de operaciones de emergencia de LUMA y adquirió suministros para operaciones de emergencia.

Preparándonos
para desastres
naturales

LUMA Energy Quarterly Report

Third Quarter
Fiscal Year 2022
January 1 - March 31, 2022

May 16, 2022



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

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



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

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

Prioritizing Safety

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

System Rebuild & Resiliency

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

Improving Customer Satisfaction

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

Operational Excellence

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

Sustainable Transformation

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

Our Mission for Puerto Rico

To recover and transform the utility to deliver reliable, resilient and cleaner electricity



PRIORITIZE SAFETY

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



SYSTEM REBUILD & RESILIENCY

Effectively deploy federal funding to restore the grid and improve the resilience of vulnerable infrastructure



SUSTAINABLE ENERGY TRANSFORMATION

Modernize the grid and the utility to enable the sustainable energy transformation



IMPROVE CUSTOMER SATISFACTION

Transform utility operations to deliver a positive customer experience and reliable electricity at reasonable prices



OPERATIONAL EXCELLENCE

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



Employee Safety and Training

LUMA's highest priority is the safety, health and wellbeing of our customers, communities and our more than 3,000 coworkers. In Q3, we continued our extensive training programs in health and safety, environmental and manufacturing and technical training courses at LUMA College.



People first,
safety always

27,000 hours of mentorship, safety training and technical training

70+ safety courses in First Aid /CPR, incident investigation, confined space entry and electrical safety

13 public safety training sessions held across the island with 287 LUMA employees, first responders, private company employees and school-aged children

In March 2022, LUMA implemented a pre-work stretching campaign with operational teams to prevent recordable injuries

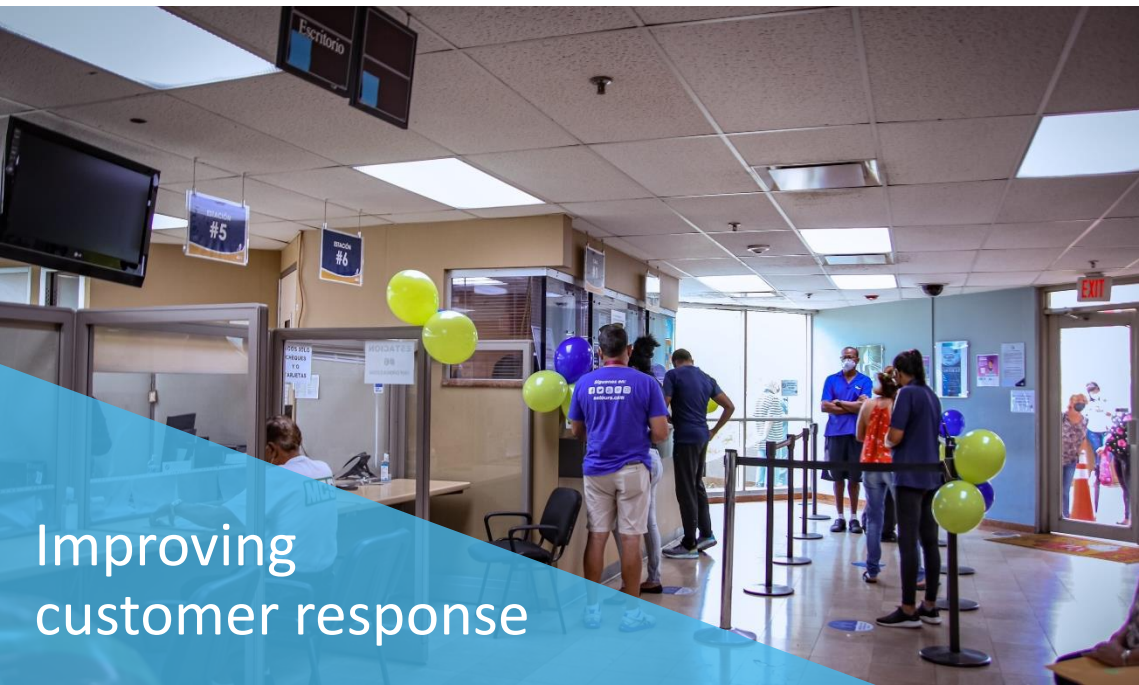
LUMA provided fleet manufacturer training for aerial equipment, fleet environmental training and Occupational Safety and Health Administration (OSHA) training for fleet

LUMA College provided technical training courses including:

- Utility Lineworkers Program
- Upskilling 1 & 2
- Human External Cargo (HEC) operations, rigging, crane operations, load / cargo securement, mechanics US Department of Transportation (USDOT) inspector certification and maintenance and repair of aerial units

Customer Service

Our customers deserve the best customer service, and we are determined to provide better updates, more information and faster response times. Our customers are at the core of everything we do.



Improving
customer response

Launched the **first ever** LUMA branded bill

<1-minute average answer time in Q3

10% increase in calls handled between Q2 and Q3

650,000+ MiLUMA account registrations and **530,000+** MiLUMA app downloads since June 1, 2021

474,900+ customers assisted in our customer service centers

78,000+ responses via direct message on Facebook, Twitter, Instagram and LinkedIn

Continued to **improve wait times** in our customer service centers

Federally-Funded FEMA Work

LUMA is working closely with FEMA to create a T&D System across Puerto Rico that is more reliable, more resilient and utilizes more renewable energy. Together, we are advancing critical federally-funded work that will accomplish this goal.

\$355 million approved by PREB during the quarter for 3 federally-funded projects/programs

13 detailed scopes of work submitted to FEMA bringing the total projects submitted for FEMA approval to **14** projects by the end of the third quarter

186 projects with completed foundational planning, engineering and scoping work representing ~\$6.7 billion of federally-funded work



Planning for
approvals and
construction



Empowering the
growth of clean energy

CONTINUED AREAS OF PROGRESS AND FOCUS

Sustainable Energy Transformation

LUMA fully supports the growth of solar and clean energy across Puerto Rico – it's what the Puerto Rican people want, and that is why we are empowering the growth of clean and renewable energy.

5,900+

new Net Metering
customers in Q3

Completed

the Points of Interconnection
Facility Studies and working on
Network Upgrade Studies to
connect utility-scale solar
generation and storage projects

21,000+

DG customers connected to Net
Metering, representing over
120 MW of renewable energy

Reliability and Resiliency

We are committed to making infrastructure improvements every day and building the next generation electric grid that Puerto Ricans deserve.

745 poles replaced, bringing year-to-date total to approximately **2,700**

5,300 streetlights replaced, of which **5,020** are LED

168 feeders assessed

118 transmission lines assessed

10 substation sites assessed

Strengthening
the grid



A green helicopter is hovering next to a tall metal tower. A worker in a yellow safety vest is on the tower. The background is a clear blue sky.

CONTINUED AREAS OF PROGRESS AND FOCUS

Emergency Preparedness and Readiness

Preparing for emergency events, like hurricanes, is a daily and year-round priority for LUMA. In Q3 LUMA, collaborated with industrial stakeholders and conducted various preparedness activities in our Control Center to ensure a readiness posture in all operations.

Continued to prepare for emergencies and large storms

Employee training and drills including **2 emergency preparedness tabletop exercises**, one with internal participants and one with Puerto Rico and federal agencies

250+ utility vehicles and safety equipment available to be deployed to support daily operations and emergency response

Installed equipment in the LUMA emergency operations center and purchased supplies for emergency operations

Preparing for
natural disasters



LUMA Quarterly Report

For the period ending March 31, 2022

May 16, 2022

LUMA Quarterly Report

Executive Summary

This document presents LUMA's Quarterly Report on the operation of the Puerto Rico Transmission and Distribution (T&D) system for the third quarter (Q3) of Fiscal Year 2022, from January 1, 2022 to March 31, 2022.

All of us who work for LUMA Energy – over 3,000 strong men and women – are determined to build a more reliable, resilient, customer-centric, and cleaner electric system for the people of Puerto Rico. Since June 1st, 2021, this has been our shared mission and our shared goal.

Given the need to address and overcome an array of historic energy and infrastructure challenges, we appreciate the profound importance of working in partnership with our regulator, the government of Puerto Rico, the federal government, our customers, and our stakeholders to achieve what the people of Puerto Rico deserve and expect – an electric system that they can trust and depend on.

From building a modernized electric grid that is more customer-centric, reliable, and resilient, and empowers the growth of renewable energy, to our continuous safety training and customer service excellence, LUMA's entire family is determined to confront challenges directly and transparently with one goal in mind - to transform and build a modern electric system for all the 1.5 million customers we are privileged to serve.

CONTINUED PROGRESS AND FOCUS

The first and second quarters of LUMA's operations were characterized by gaining control and working to stabilize the T&D System, onboarding and training thousands of employees, adding new customer communication channels and customer-focused resources such as the MiLUMA app and reopening customer service offices, addressing the backlog of uncompleted work left since spring 2021, removing tons of debris and garbage from sites that were impacting safety and reliability, and, most importantly, uncovering and beginning to address significant deficiencies and omissions within the Puerto Rico Electric Power Authority's (PREPA) organizational and infrastructure systems.

In spite of an array of ongoing and documented challenges associated with the incredibly fragile state of the T&D System stemming from years – if not decades – of neglect by the prior operator, LUMA remained focused on making real and measurable progress in the third quarter of its operations. During Q3, and over its first ten months of operations, LUMA's team achieved the following across multiple areas of importance to transforming and modernizing the electric grid:

Safety and Training: A Focus on Improving Safety & Training

- Provided over 27,000 hours dedicated to mentorship, safety, and technical training, including:
 - Held over 70 safety courses including First Aid / Cardiopulmonary Resuscitation (CPR), incident investigation, confined space entry, and electrical safety.
 - Continued the focus on training with 1,920 hours of fleet manufacturer training conducted on aerial equipment for 40 mechanics, 272 hours of fleet environmental training to 34 employees, and 310 hours of Occupational Safety and Health Administration (OSHA) training for fleet was provided to 31 employees.
 - Provided training courses at the LUMA College for Technical Training, including Utility Lineworkers Program, Upskilling 1 & 2 as well as other technical training such as Human

LUMA Quarterly Report

External Cargo (HEC) operations, rigging, crane operations, load/cargo securement, mechanics US Department of Transportation (USDOT) inspector certification, and maintenance and repair of aerial units.

- Responded immediately to an increase in recordable injuries in January and February 2022, LUMA implemented a pre-work stretching campaign with its operational teams in March 2022.
- 13 public safety training sessions held across the island with 287 employees, first responders, private company employees, and school-aged children.

Customer and Community Services: Improving Customer Response & Service

- Launched the first ever LUMA branded and designed bill on March 4, 2022 after receiving approval from the Puerto Rico Energy Bureau (Energy Bureau or PREB) for the new customer bill design during the second quarter (Q2).
- Continuing to answer the phone quickly over the quarter maintaining average call wait times of under a minute, which was first achieved in Q2, and answering the phone in an average of 58 seconds for the third quarter, this was achieved with over a 10 percent increase in calls handled between Q2 and Q3.
- Connected digitally with customers with over 650,000 MiLUMA account registrations and over 530,000 MiLUMA app downloads since June 1, 2021.
- Overall Customer Satisfaction increased 25 percent since June 2021 to 506 points, according to J.D. Power Residential Scoring surveys carried out in January and February.
- Received the fewest Act 17-2014 claims in the history of the law for the second quarter in a row.
- Held LUMA's first quarterly Voice of the Customer summit, to share customer experiences across LUMA and to support LUMA's mission to transform the customer experience and improve overall customer satisfaction.
- Assisted over 474,900 people in our customer service centers and sent over 78,000 responses via direct message on Facebook, Twitter, Instagram, and LinkedIn during Q3.
- Continued to reduce wait times in our customer service centers to an average of 6 minutes 17 seconds in March 2022 decreased from 9 minutes 44 seconds on average in December 2021.

Federally Funded FEMA Work: Planning & Preparing for Approvals & Construction

- Securing approval from the Energy Bureau for three federally funded projects/programs representing \$355 million in future federally funded infrastructure investment.
- Continued advancing work on the PREB approved 135 federally funded Projects/Programs initial Scopes of Work (SOWs) representing an estimated \$8.2 billion through preliminary engineering, planning, and scope development work.
- Submitted 13 detailed SOWs to Federal Emergency Management Agency (FEMA) bringing the total projects submitted for FEMA approval to 14 projects by the end of the third quarter.

Sustainable Energy Transformation: Empowering the Growth of Clean Energy

- Continued to activate Net Energy Metering (NEM) service for over 5,900 customers and bringing the total since June 1, 2021 to over 21,000 connections representing over 120 megawatts (MW) of renewable energy.
- Engaged in Department of Energy (DOE) PR100 activity pathways by launching key tasks related to demand projections, capacity expansion, production cost analysis, and power system studies

LUMA Quarterly Report

to help support Puerto Rico's renewable energy goal of achieving 40% renewable energy by 2025 and 100% by 2050.

- Completed the Points of Interconnection (POI) Facility Studies and is working to complete the Network Upgrade Studies required to interconnect utility scale renewable energy and storage projects submitted in response to the Tranche 1 Request for Proposals (RFP).
- Continued to advance work for the 2024 Integrated Resource Plan (IRP) by hosting a review of the planned process for the next IRP cycle and received approval from the Energy Bureau to proceed in issuing the IRP Request for Qualification (RFQ) and RFP.
- Incorporated Electric Vehicles (EV) questions in the JD Power Customer Satisfaction Survey to serve as an input to the development of the Phase I Electric Vehicle Infrastructure Deployment Plan currently under development with the Energy Bureau and engaged stakeholders.
- Continued to develop the Energy Efficiency and Demand Response (EE and DR) Transition Period Plan to be filed with the Energy Bureau in June which outlines LUMA's plans for quick-start EE and DR pilot programs.

Repairing & Restoring the Electric System: Strengthening the Grid

- Replaced 745 poles, bringing the year-to-date total to almost 2,700.
- Repaired over 5,300 streetlights, 5,020 of which were replaced by LEDs.
- Repaired and replaced to existing and outdated metering equipment improved the meter reading rate for Automatic Meter Reading (AMR) to 95 percent compared to 85 percent at commencement.
- Performed high-level assessments on 168 feeders, 118 transmission lines, and 10 substation sites to support project scoping and identifying focus areas for upcoming repairs and reconstruction.

Supporting our Customers: Helping Customers Dealing with High Generation Fuel Costs

- LUMA remains greatly concerned by the negative impact that global events are having on fuel prices and customer rates, and in the third quarter we continued to do all we can to help our customers.
- LUMA continued working together with key leaders across Puerto Rico to raise public awareness about several government assistance programs that could offer assistance to those eligible.
- LUMA has set up over 9,200 payment arrangements to date and supported more than 1,000,000 payments to households receiving assistance totaling \$27.5 million from the La Familia Low-Income Home Energy Assistance Program (LIHEAP), the COVID Rental Assistance program and other programs to support people in need.
- LUMA is also enabling the acceleration of renewable energy to reduce the dependence on imported fuel for PREPA's power generation and subsequent impact on its customers.

Emergency Preparedness and Readiness: Strengthening Our Preparations for Natural Disasters

- Continuing to prepare for emergencies and large storms.
- Conducted two emergency preparedness tabletop exercises, one with internal participants and one emergency preparedness mock drill with Puerto Rico and federal agencies.
- Procured over 250 utility vehicles and safety equipment available to deploy to support daily operations and emergency response.

LUMA Quarterly Report

- Installed necessary emergency equipment in the primary physical LUMA emergency operations center (LEOC) and purchased necessary supplies for emergency operations.
- Engaged with various industry stakeholders regarding our emergency preparedness including the Pharmaceutical Industry Association, the Industrial Association, and the Telecommunications Bureau.
- Conducted various preparedness activities in our Control Center to ensure our System Operations team is ready for any emergencies including on-site generator testing and fuel storage checks, procedure testing, installation and purchase of equipment, and purchasing of supplies.
- Prepared warehouses for storm season by strategically storing materials and moving loose items in yards, increasing levels of critical inventory, and ensuring adequate fuel supply.

Spending: In-Line with Projections & Prioritizing Critical Operations

Since the beginning of operations on June 1, 2021, LUMA has been focused on addressing a series of documented and significant legacy challenges related to the previous T&D operator. In order to address these ongoing legacy issues, LUMA has overseen its budget in order to prioritize several critical areas, including significant gaps in worker training, fundamental weaknesses in critical infrastructure, and lack of customer communications and interaction.

The third quarter expenditures are consistent with LUMA's projected progression of its operational and capital activities approved within the FY 2022 Budget. More specifically and despite the cost pressures associated with the inflation rate near four-decade highs, **LUMA has spent 76% of its combined annual operational and non-federally funded capital budgets over the first three quarters**, and the company forecasts that its **overall spending is in line with aggregate budget totals for the current fiscal year**. In addition, LUMA has made clear that it **will not request any increase in the Base Rate established by the Energy Bureau's 2017 Rate Order**.

Summary

The opportunity to serve the energy needs of the Puerto Rican people is an enormous privilege. Over LUMA's first three quarters of FY 2022 operations, the foundation is being built with which to recover and transform Puerto Rico's grid infrastructure and electric system over the coming months and years. While persistent challenges will continue during this transformation, such as the April 6, 2022 outage that occurred during the fourth quarter, real and measurable progress has been made across multiple energy priorities.

Most importantly, we are proud to be investing in a highly trained and safety-focused utility workforce that will serve Puerto Rico for generations to come. This new generation of energy workers, who are being trained in modern utility standards and have access to modern tools and equipment, will be better equipped to respond to outages and future storms, unwind historic system limitations, advance, and achieve key grid improvements, provide world-class customer service, and help empower a clean energy future.

Contents

LUMA Quarterly Report

Tables & Figures	7
1.0 Summary of Activities	8
2.0 Spending over the Quarter	13
2.1 Summary	13
2.2 Transmission & Distribution Operating Expenditures	13
2.2.1 Customer Experience	15
2.2.2 Operations	18
2.2.3 Utility Transformation	21
2.2.4 Support Services	24
2.3 T&D Capital — Federal and Non-Federal Funded	27
2.3.1 Capital Spending by Portfolio	28
3.0 T&D Activities by Portfolio	29
3.1.1 Customer Experience	32
3.1.2 Distribution	36
3.1.3 Transmission	40
3.1.4 Substation	43
3.1.5 Control Center and Buildings	48
3.1.6 Enabling	51
3.1.7 Support Services	56
4.0 Federal Funding Activity	59
4.1 Summary of Activity	59
4.1.1 Status of Federal Funded Projects as of March 31st, 2022	62
5.0 Shared Services	63

LUMA Quarterly Report

Tables & Figures

Table 2-1. Initial Budgets Summary (\$ in millions)	13
Table 2-2. Transmission & Distribution Total Operating Expenditures (\$ in millions).....	14
Table 2-3. Customer Experience Operating Expenditures (\$ in millions)	17
Table 2-4. Operations Operating Expenditures (\$ in millions)	20
Table 2-5. Utility Transformation Operating Expenditures (\$ in millions)	23
Table 2-6. Support Services Operating Expenditures (\$ in millions).....	26
Table 2-7. Improvement Portfolios – Total Capital Expenditures – Federally Funded (\$ in millions).....	28
Table 2-8. Improvement Portfolios – Total Capital Expenditures – Non-Federally Funded (\$ in millions) ..	28
Table 3-1. Improvement Portfolio and Program Summary (\$ in millions)	31
Table 3-2. Distribution Streetlighting Program Summary (\$ in millions)	32
Table 3-3. Billing Accuracy and Back Office Program Summary (\$ in millions).....	33
Table 3-4. Standardized Metering and Meter Shop Setup Program Summary (\$ in millions)	34
Table 3-5. AMI Implementation Program Summary (\$ in millions).....	35
Table 3-6. Distribution Line Rebuild Program Summary (\$ in millions)	36
Table 3-7. Distribution Pole & Conductor Repair Program Summary (\$ in millions).....	37
Table 3-8. Distribution Automation Program Summary (\$ in millions).....	38
Table 3-9. Distribution Lines Inspection Program Summary (\$ in millions)	39
Table 3-10. IT OT Telecom Systems & Network Program Summary (\$ in millions).....	40
Table 3-11. Transmission Line Rebuild Program Summary (\$ in millions).....	41
Table 3-12. Transmission Priority Pole Replacements Program Summary (\$ in millions).....	42
Table 3-13. Transmission Substation Rebuilds Program Summary (\$ in millions)	43
Table 3-14. Distribution Substation Rebuilds Program Summary (\$ in millions)	44
Table 3-15. Transmission Substation Reliability Improvements Program Summary (\$ in millions)	45
Table 3-16. Transmission Substation Security Program Summary (\$ in millions)	46
Table 3-17. Compliance & Studies Program Summary (\$ in millions)	47
Table 3-18. Facilities Development & Implementation Program Summary (\$ in millions)	48
Table 3-19. Critical Energy Management System Upgrades Program Summary (\$ in millions)	49
Table 3-20. Control Center Construction & Refurbishment Program Summary (\$ in millions)	50
Table 3-21. Vegetation Management Program Summary (\$ in millions)	51
Table 3-22. T&D Fleet Program Summary (\$ in millions)	52
Table 3-23. Capital Programs, PMO & Funding Management Office Setup Program Summary (\$ in millions)	53
Table 3-24. Tools Repair & Management Program Summary (\$ in millions)	54
Table 3-25. HSEQ and Technical Training Program Summary (\$ in millions)	55
Table 3-26. HR Programs Program Summary (\$ in millions).....	56
Table 3-27. Renewables Integration, Minigrids and Generation Studies Program Summary (\$ in millions)	57
Table 3-28. IT OT Asset Management Program Summary (\$ in millions).....	58
Table 4-1. Project Status Summary (\$ in billions)	62
Table 4-2. Federal Funding Status Summary (\$ in millions)	62
Table 5-1. Shared Services (\$ millions)	64

LUMA Quarterly Report

1.0 Summary of Activities

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

- Prioritizing safety,
- Improving customer satisfaction,
- System rebuilding and resiliency,
- Achieving operational excellence, and
- Empowering a sustainable energy transformation.

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

CONTINUED TO PRIORITIZE SAFETY AND TRAINING

Safety and training are a primary focus across the LUMA organization, with particular emphasis on field operations. Based on assessments made during and prior to the first quarter, and the lack of sufficient safety and industry training among utility workers who were part of PREPA, LUMA lineworkers continue to receive specialized and dedicated training led by LUMA College for Technical Training. This investment in our team and in building critical skills among Puerto Rico's new utility workforce will continue and is fundamental to improving the electrical system.

In order to prioritize safety and training, experienced and highly-skilled temporary field workers continue to be utilized to help develop the critical skills essential to building LUMA lineworker competencies. These highly skilled field workers continued to mentor, train, and lead line and substation crews to ensure workplace safety, train LUMA workers to industry standards, and facilitate appropriate work methods when performing critical utility work. Specialized training in the quarter included First Aid / CPR, incident investigation, confined space entry, electrical safety, Human External Cargo operations, rigging, crane operations, load / cargo securement, mechanics USDOT inspector certification, and maintenance and repair of aerial units. In order to continue to prioritize safety, which slightly increased during the third quarter, LUMA implemented a pre-work stretching campaign with its operational teams in March 2022 to address the increase in recordable injuries of slips, trips, sprains, and strains

Key milestones include:

- Provided over 27,000 hours of safety, technical skills training, and mentorship during the third quarter.
- Over 325 students completed a training course at the LUMA College for Technical Training during the third quarter.
- Conducted 13 public safety training sessions held across the island with 287 employees, first responders, private company employees, and school-aged children.

LUMA Quarterly Report

- Over 70 health and safety training sessions held with over 1,200 employees including First Aid / CPR, incident investigation, confined space entry, and electrical safety.
- Establishing new safety and quality of work standards by adopting industry leading approaches for training and establishing new apprenticeship programs.
- Continued the focus on training with 1,920 hours of fleet manufacturer training was conducted on aerial equipment for 40 mechanics, 272 hours of environmental training was offered to 34 employees, and 310 hours of OSHA training was provided to 31 employees.
- Provided technical training courses at the LUMA College for Technical Training, including Utility Lineworkers Program, Upskilling 1 & 2 as well as other technical training such as HEC operations, rigging, crane operations, load / cargo securement, mechanics USDOT inspector certification, and maintenance and repair of aerial units.

IMPROVING OUTREACH AND RESPONSE TO OUR CUSTOMERS

Building on efforts since commencement, LUMA maintained excellent overall response rates as LUMA answered more calls in the third quarter while also maintaining average call wait times at less than one minute. LUMA continued to listen to customer feedback and implement improvements to the MiLUMA self-serve platform which led to further increases in customers registering with MiLUMA. Further, LUMA launched the first LUMA-branded transparent and easy-to-read bill for all customers.

Our continued focus on improving service quality through customer connectivity, employee training, and quality assurance and coaching programs enabled LUMA to further reduce Act 57-2014 claims to the lowest level received by the utility for the second quarter in a row. LUMA reduced the number of claims by almost half, having only received 614 claims in the third quarter, when compared to 1,218 claims during the previous quarter. LUMA continues to communicate and further its relationships with all municipalities and our customer experience teams are in daily contact to serve the communities' needs. Most notably, the quarterly J.D. Power Residential Scoring showed improvement across all performance domains since LUMA began operations, with Overall Customer Satisfaction increasing to 506 points - a 25 percent improvement since June 2021.

Key milestones include:

- Maintained an Average Speed of Answer to customer calls in Q3 of 58 seconds (significantly reduced from over 9 minutes experienced in September 2021), and an Abandonment Rate in Q3 of 5.2 percent (a noted decrease of 11.5 basis points since September 2021).
- Assisted over 474,900 people in our customer service centers and sent over 78,000 responses via direct message on Facebook, Twitter, Instagram, and LinkedIn during Q3, as well as continued to reduce wait times in our customer service centers to an average of 6 minutes 17 seconds in March 2022 (a decrease from 9 minutes 44 seconds on average in December 2021).
- Since June 1, 2021, more than 532,700 people downloaded the MiLUMA app, including a Q3 increase of 18 percent since December 2021, and more than 653,000 registered with the free MiLUMA web service as of March 31, 2022, a 7 percent increase since December 2021.
- Engaged and connected with mayors over 1,700 times and facilitated real-time communication with industrial and commercial customers, and improved response times to inquiries from municipalities and Key Account customers.
- Continued our active engagement with customers, including addressing over 92,500 service orders, holding several Community / Outreach events to increase familiarization with customer-centric process improvements, and reconnecting services that had been unavailable since Hurricane Maria.

LUMA Quarterly Report

- Reduced unbilled accounts to less than 10,000.
- Launched the first LUMA-branded transparent and easy-to-read bill and continued to implement technological improvements that enhance the customer callback process.
- Supporting LUMA's mission to transform the customer experience and improve overall customer satisfaction, LUMA held its first Voice of the Customer summit. This event allowed us to share customer insights and metrics data throughout the organization, as well as provide a forum on process improvement.
- LUMA's outage duration reduction task force continued its deployment of technology and equipment to improve performance including deployment of reclosers, trip savers, fault current indicators and fusing practices. Process improvements have also been implemented to reduce outage response time in order to shorten the duration of customer outages that do occur.

ADVANCING FEDERALLY FUNDED CAPITAL PROJECTS

LUMA has continued its significant progress and actions to help further critical federally funded FEMA projects. During the third quarter, LUMA advanced projects by submitting 13 detailed SOWs to FEMA bringing the total projects submitted for FEMA approval to 14 projects at the end of the third quarter. LUMA continues to advance critical engineering and scoping work that is necessary to securing funding and beginning construction on hundreds of federally funded projects.

LUMA's focus on advancing the permanent work, which will touch nearly every corner of Puerto Rico and represent more than \$10.7 billion of repair, recovery and restoration is ongoing and increasing. LUMA has also continued to build on its established strong working relationships with Central Office for Recovery, Reconstruction and Resiliency (COR3) and FEMA. During the quarter, LUMA also continued to collaborate with the U.S. Department of Housing and Puerto Rico Department of Housing, resulting in the consideration of key electrical infrastructure projects in the Preliminary Action Plan for Community Development Block Grant Disaster Recovery (CDBG-DR) funding.

Key milestones include:

- Submitting 13 detailed SOWs to FEMA for approval in order to enable detailed engineering and construction in the coming months.
- Securing approval from the Energy Bureau for three federally funded projects / programs representing \$355 million.
- Continued to advance work on the PREB approved 135 Projects/Programs initial SOWs, representing an estimated \$8.2 billion, through preliminary engineering, planning and scope development work.
- Following PREB approval and assignment of a FEMA Accelerated Awards Strategy (FAASt) number, LUMA progressed preliminary engineering on 88 projects representing approximately \$1.4 billion and projects are at various stages of preliminary engineering, planning, and scoping.

While LUMA has made significant progress in moving critical FEMA projects forward, PREPA's lack of advancement of federally funded work prior June 1, 2021, as well as the time it has taken to set up the new processes and concepts with COR3 and FEMA, has significantly impacted the timing of construction for these projects. Even though LUMA's FY 2022 federally funded expenditures will be lower than the original budget, LUMA is determined to continue to advance these critical projects and expects construction to begin on the first FEMA and federally funded projects during the remaining part of 2022.

LUMA Quarterly Report

EMPOWERING THE RENEWABLE ENERGY TRANSFORMATION

LUMA shares the serious concerns over the threat posed by climate change and strongly supports Puerto Rico's ambitious renewable energy goals. LUMA continues to devote considerable effort to accelerating the growth of the renewable energy across every aspect of the energy system.

Since June 1, 2021, LUMA has activated over 120 MW of NEM distributed solar generation – a record amount of clean energy generation. In addition, at the end of the third quarter, LUMA has addressed the serious backlog of solar connections that were inherited on June 1st, 2021 from PREPA, and has activated NEM service for 99 percent of these backlog solar projects. Further, LUMA is strongly committed to empowering the growth EVs across Puerto Rico, and has supported the Energy Bureau's new proceeding on EVs through participation in Technical Workshops and providing comments on principle documents.

Key renewable milestones include:

- Activating ~21,000 NEM customer connections since commencement with 5,900 distributed grid services activated from January to March 2022 representing 120 MW of renewable generation since June 1, 2021.
- Managing 40 active medium-scale distribution projects representing up to 100 MW in renewable energy.
- LUMA completed the POI Facility Studies and is working to complete the Network Upgrade Studies required to interconnect renewable energy and storage projects submitted in response to the Tranche 1 Requests for Proposals.
- Actively supporting the Energy Bureau's appointed Independent Coordinator, Accion Group, with the development of the Tranche 2 RFP by providing technical information to support their improvements to the RFP process.
- Conducted studies to guide developers for optimal placement of renewable energy sources to determine the ideal POI to the transmission and distribution system and which incur minimal interconnection network costs.
- LUMA also conducted studies to size and place energy storage to increase reliability and resiliency while reducing system reliability violations.
- Coordinating with three other utility scale wind and solar energy facilities, totaling over 175 MW, to interconnect them safely to the grid promptly.
- Engaged in DOE PR100 activity pathways by launching key tasks related to demand projections, capacity expansion, production cost analysis, and power system studies to help support Puerto Rico's renewable energy goal of achieving 40% renewable energy by 2025 and 100% by 2050.

REPAIRING, RESTORING, & REBUILDING THE ELECTRIC GRID

Over the first three quarters of operations, LUMA took a series of actions to repair and improve the transmission and distribution infrastructure, respond to outage events, address major breakdowns attributed to years of neglect, and clean up issues dating back to Hurricane Maria.

To help repair, restore, and rebuild the electric grid, LUMA continued to make targeted and sustainable improvements that will help provide safer and more reliable electric service to our customers over the coming months and years. The actions LUMA has taken include: (1) Improving power restoration processes by leveraging newly implemented centralized planning and dispatch functions, resulting in improved coordination of resources, (2) Vegetation Management remained a point of emphasis in

LUMA Quarterly Report

responding to urgent outages and public safety requests coupled with shift in focus to Right-of-Way (ROW) reclamation activities, (3) executing a two-step power restoration process of initially restoring service and tracking work orders through permanent repairs in order to help reinforce the system through the restoration process, (4) advance recertification / inspection of fleet assets in order to maximize the availability of vehicles and heavy equipment to respond to major storm events, (5) incorporating the results of Asset Management initiatives (e.g., High-Level Assessments, Breaker / Relay Functional Tests, Thermography and Transformer Oil Analyses) that will facilitate better targeting of our maintenance and repair efforts, and (6) continuing our efforts to create functional specifications that will accelerate the engineering work required to support future capital projects.

Key electric grid milestones include:

- Responded to 8,735 outage events (23 percent reduction from Q2) and restoring service to 2,469,306 customers.
- Replaced 745 poles bringing the year-to-date total to almost 2,700.
- Performed high-level assessments on 118 transmission lines and 168 distribution feeders, doubling the numbers from Q1 and Q2 combined.
- Repaired over 5,300 streetlights - 5,020 of which were replaced by LEDs.
- Repaired and energized several faulted underground cables, including six dating back to Hurricane Maria, located in San Juan.
- Continued work on priority recloser installations with four reclosers completed and 43 more reclosers in various stages of design and field execution supporting LUMA's overall reliability initiative.
- Completed initial vegetation clearing and herbicide treatments at all substations and started proactive vegetation maintenance work on distribution feeders within the Bayamon and San Juan regions and transmission lines in the Ponce region.
- Completed breaker and protection verification checks at Palo Seco and San Juan Steam Plant, and started similar checks at Viaducto
- Completed replacement of locks across all substations and repaired fencing / lighting / roofs at Isla Grande and Martín Peña.
- Advanced certification of 309 USDOT and 123 American National Standards Institute (ANSI) fleet units.

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

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

LUMA Quarterly Report

2.0 Spending over the Quarter

2.1 Summary

LUMA continues to deliver recovery and transformation improvements across the T&D System and organization through our Operation and Maintenance (O&M) and Improvement Program activities and spending. This quarter our spending continued to focus on advancing the Improvement Programs with \$97.1 million spent on operating, capital – non-federally funded and capital – federally funded improvement activities.

Operational activities focused on critical areas, such as training, vegetation management, fleet, billing accuracy and back office, and responding to legislative requests for information within the Customer Experience, Enabling and Support Services portfolios. Capital activities related to the T&D System infrastructure Improvement Programs within the Customer Experience, Distribution, and Enabling portfolios included investments in completing distribution pole and conductor repairs, receiving purchased vehicles, and purchasing tools and personal protective equipment (PPE). Despite LUMA facing unprecedented upward price pressures with the inflation near four-decade highs, including prior period adjustments, LUMA ended the third quarter under budget for Operating Expenditures, Non-Federally Funded Capital Expenditures and Federally Funded Capital Expenditures.

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

1		2		3	4	5	6	
		Schedule Reference		FY 2022 Budget ¹	Q3 Budget	Q3 Actual	Variance (\$)	Variance (%)
Transmission & Distribution								
1	Total Operating Expenditures	2.2	\$	526.8	\$	135.6	\$	114.7
2	Non-Federally Funded Capital Expenditures	3.1	\$	124.1	\$	35.8	\$	26.3
3	Subtotal		\$	650.9	\$	171.4	\$	141.1
						\$	30.4	18%
4	Federally Funded Capital Expenditures	3.1	\$	650.4	\$	191.3	\$	27.9

¹ FY 2022 and Q3 Budget figures above include 2% Reserve for Excess Expenditures.

2.2 Transmission & Distribution Operating Expenditures

While significant progress has been made by LUMA across multiple areas vital to the future of the electric system, the challenges encountered since June 1, 2021 continue to be uncovered, investigated and addressed in the third quarter. As is vital to improving the system of the electric system for the future, LUMA continued to focus its effort on understanding the impact of these challenges, assessing risks, developing improvement plans and mitigating the limitations even as actions have been taken to implement these improvement plans and address serious legacy issues where possible.

Overall, total operating expenditure during Q3 FY 2022 was approximately \$115 million, including prior period adjustments, as compared to a budget of approximately \$136 million. This favorable variance is a direct reflection of LUMA's efforts to get back to budget and a commitment to prioritizing resources appropriately in order to meet critical short and long-term energy system goals.

LUMA Quarterly Report

As would be expected, LUMA continued to place priority on building a safe and effective energy workforce through training and mentorship by seconded skilled temporary employees. These activities occurred in Q3 at a reduced rate than prior quarters based on the initial foundation built from an emphasis on additional training and mentorship and given a more stabilized training cadence. Overall, LUMA has continued to spend the dollars required to operate the utility safely and effectively and has sought efficiencies where appropriate to contain costs as part of its commitment to budget management efforts.

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

	1	2	3	4	5	6
		Transmission and Distribution Total Operating Expenditures				
		FY2022 Budget	Q3 Budget	Q3 Actual	Variance (\$)	Variance (%)
	Labor					
1	Salaries, Wages and Benefits	212.5	55.7	63.0	(7.3)	
2	Total Labor	\$ 212.5	\$ 55.7	\$ 63.0	\$ (7.3)	(13%)
	Non-Labor					
3	Materials & Supplies	20.6	5.1	3.5	1.7	
4	Transportation, Per Diem, and Mileage	21.0	5.2	0.0	5.2	
5	Property & Casualty Insurance	15.4	3.9	4.1	(0.2)	
6	Security	9.6	2.4	2.4	(0.0)	
7	IT Service Agreements	30.4	7.6	1.3	6.3	
8	Utilities & Rents	19.0	4.7	2.4	2.4	
9	Legal Services	10.1	3.4	1.3	2.1	
10	Communications Expenses	4.7	1.2	0.0	1.2	
11	Professional & Technical Outsourced Services	88.8	22.7	19.5	3.2	
12	Vegetation Management	51.3	12.8	10.7	2.1	
13	Regulation and Environmental Inspection	4.0	1.0	0.1	0.9	
14	Other Miscellaneous Expenses	28.8	7.2	6.4	0.8	
15	Other Expenses	0.3	0.1	-	0.1	
16	Total Non-Labor / Other Operating Expense	\$ 304.0	\$ 77.3	\$ 51.7	\$ 25.5	33%
17	Subtotal	\$ 516.5	\$ 133.0	\$ 114.7	\$ 18.2	14%
18	2% Reserve for Excess Expenditures	10.3	2.7	-	2.7	
19	Total Operating Expenditures	\$ 526.8	\$ 135.6	\$ 114.7	\$ 20.9	15%

LUMA Quarterly Report

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 through implementation of appropriate communication protocols and standard billing and collection practices that personify courtesy, capture efficiencies, and create proactive solutions for customers. In total, LUMA generated over 4.4 million bills (over 950,000 as ebills) and processed payments totaling over \$912 million.

During the third quarter, the team also continued its focus on providing customers with multiple channels to connect with LUMA and on meeting greater than expected and historically recorded customer demand. LUMA expanded the users of the MiLUMA self-serve platform. As of March 31, 2022, 653,561 customers have registered an electronic MiLUMA account (a quarterly increase of 43,579), and the MiLUMA app has been downloaded 532,759 times (a quarterly increase of 81,632). This initiative is providing our customers with new ways to communicate with us and is foundational to improving customer satisfaction, evidence of which is noted in our most recent J.D. Power Residential Scoring report for this past quarter where overall Customer Satisfaction and Communication have each improved by 25 percent (129 points) since June 1, 2021.

LUMA also answered more customer calls in the third quarter and maintained our performance in customer service response with monthly call volume increasing from 213,017 in January 2022 to 285,905 in March 2022. Having arrived at an unprecedented Abandonment Rate of 4 percent in December 2021 (a noted decrease of 13 basis points since September 2021), LUMA settled at an average Abandonment Rate over the quarter of 5.2 percent. In addition, LUMA's Average Speed to Answer for the quarter was 58 seconds, which remains stable and improved compared to last quarter's Average Speed to Answer of 1 minute and 23 seconds.

LUMA's quality assurance and coaching program that was launched across customer experience workgroups in the first quarter continued to develop with the completion of over 4,000 quality assurance evaluations during Q3 (an increase from 3,800 in Q2). This program continues to provide on the job training through its daily team huddles that include process discussions, reminders, and formal training in shorter "refresher" modules resulting in consistent and accurate customer response.

As a result of LUMA's continued efforts to improve customer connectivity and employee training, including the rolling out of new training modules for handling difficult interactions with customers, LUMA maintained its downward trend in Act 57-2014 claims, receiving 614 claims in Q3 as compared to 1,218 during the previous quarter and again receiving the fewest claims in the history of the law.

LUMA also launched its first ever LUMA branded bill on March 4, 2022 after receiving approval from the Energy Bureau for the new customer bill design during the second quarter. As part of LUMA's commitment to excellent customer service, LUMA developed a new customer bill to help all our customers better understand how they use energy, what they can do to save energy, and what they can do to save money from month to month. LUMA's new customer bill is more transparent, easier to read and promotes a clearer understanding through the following changes:

- The new message center will offer customers helpful energy saving tips and information.
- Important information, such as the payment due date, is clearer and more prominent.
- Monthly energy usage is more visible allowing customers to know exactly how much energy they've used.

LUMA Quarterly Report

- A new bar graph illustrates energy usage and compares it with the previous month, and with the same month of the previous year.

Acknowledging the previously identified Customer Care and Billing (CC&B) system and process limitations due to legacy issues inherited from the past operator, LUMA continued its drive to improve billing accuracy and reduce non-technical line loss, including implementing:

- a quality assurance program for Billing Services employees to improve process adherence,
- an enhanced process for back-office bill reviews, and
- a public lighting rate workshop to ensure rates are billed accurately and to develop a plan to align the billing system.

Other key improvements to customer experience included the following:

- LUMA served more than 474,900 customers during the quarter at its 25 rebranded customer service centers and continued to reduce wait times to an average of 6 minutes 17 seconds in March 2022 (a decrease from 9 minutes 44 seconds on average in December 2021).
- LUMA closed more than 92,500 service orders (as compared to 83,000 service orders during Q2), leveraging the previously developed joint Operations, Engineering, Key Accounts, Customer Excellence and Planning information management tool. Specific accomplishments included the expedited connection of the modularized build of Agripina Seda School in Guánica after it had collapsed during the earthquake in 2020, and reconnection of services to the Aqueduct and Sewer Authority (AAA) Bayview facility which had been disconnected since Hurricane Maria.
- LUMA supported customers struggling to pay their energy bills by proactively calling out to offer payment arrangements and direct customers to assistance programs. LUMA set up over 3,900 payment arrangements during Q3 (as compared to 3,200 in the previous quarter) and reduced the number of unbilled accounts to less than 10,000, a 33 percent decrease since December 2021.
- Initiated LUMA's first quarterly Voice of the Customer summit which engaged with all areas of the organization to provide customer insights to show our customer's journey alongside LUMA's current processes.
- Community and outreach events included meeting with the Puerto Rico Negociado de Investigaciones Especiales (NIE) regarding case referrals on energy theft, relationship strengthening presentations to major industrial clients from across the island, introductory sessions with Jayuya and Vivienda regarding process improvements, and an event with Fortaleza Special Projects regarding removal of high-risk equipment located inside the Centro de Diagnóstico y Tratamiento (CDT) in Vieques.
- Customer-centric technological improvements included implementing the following:
 - a customer callback option in the Interactive Voice Response (IVR) after a 5-minute wait time between 8 AM and 8 PM,
 - a chat tool for industrial and commercial customers to support continuity of operations, and
 - a tracking tool to improve response time to letters received from municipalities and Key Account customers.

LUMA Quarterly Report

Key variances within the Customer Experience department's operational costs include slightly higher than budgeted labor as the team continued to place significant effort on stabilizing and investigating the configuration and control issues with Oracle CC&B identified in the first quarter. But overall, the variance between budgeted and actual operating expenditures was immaterial.

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

	1	Customer Experience						
		2	3	4	5	6		
		FY2022 Budget	Q3 Budget	Q3 Actual	Variance (\$)	Variance (%)		
	Labor							
1	Salaries, Wages and Benefits	41.3	10.8	11.5	(0.8)			
2	Total Labor	\$ 41.3	\$ 10.8	\$ 11.5	\$ (0.8)	(7%)		
	Non-Labor							
3	Materials & Supplies	0.3	0.1	0.1	(0.0)			
4	Transportation, Per Diem, and Mileage	0.7	0.2	0.1	0.0			
5	Property & Casualty Insurance	-	-	-	-			
6	Security	0.2	0.1	-	0.1			
7	IT Service Agreements	-	-	0.1	(0.1)			
8	Utilities & Rents	0.0	0.0	0.2	(0.2)			
9	Legal Services	0.6	0.2	-	0.2			
10	Communications Expenses	0.3	0.1	-	0.1			
11	Professional & Technical Outsourced Services	23.7	5.9	7.1	(1.1)			
12	Vegetation Management	-	-	-	-			
13	Regulation and Environmental Inspection	-	-	-	-			
14	Other Miscellaneous Expenses	1.1	0.3	(0.0)	0.3			
15	Other Expenses	-	-	-	-			
16	Total Non-Labor / Other Operating Expense	\$ 27.0	\$ 6.7	\$ 7.6	\$ (0.9)	(13%)		
17	Total Operating Expense	\$ 68.3	\$ 17.5	\$ 19.1	\$ (1.6)	(9%)		

LUMA Quarterly Report

2.2.2 Operations

The LUMA Operations department oversees and manages the day-to-day work on the transmission and distribution infrastructure critical to providing safe and reliable electric service to all our 1.5 million customers. Overall, the highest priority of LUMA operations continues to be the safety of our workforce and our customers, while also taking actions to also address reliability and resiliency issues.

As part of its commitment to safety, LUMA focused on the continued training of our line workers during the third quarter. For example, the two previously developed upskilling courses designed to address the significant deficiencies in overall job skills and safety processes and procedures, as well as the apprentice 2 training, were offered to 252 Puerto Rican line workers as compared to 132 in Q2. Collectively, LUMA also provided technical skills and safety training at LUMA's College for Technical Training in Q3 with over 325 students completing a training course at LUMA College for Technical Training during Q3. As a further measure of its safety commitment, LUMA provided 1,000 hours of load / cargo securement training to most of the line operation employees and the operations team completed over 3800 site safety observations throughout the quarter.

In order to ensure safe operations and improved training of its workforce, LUMA continued to rely on skilled temporary employees even as off-site training for LUMA line workers continued to provide mentorship and critical guidance to those crews in the field and vital to the operations of the T&D System. While the skilled mentors' support has been significantly reduced when compared to Q2, LUMA continues to focus on teaching safe, efficient, and standard work practices when conducting critical operations and/or responding to customer needs.

Among the major operational efforts and milestones in the third quarter included:

- Addressed 92,500 service orders comprising of new connections, on and offs, meter changes, and special reads.
- Installed 5,640 bi-directional meters.
- Replaced 745 poles bringing the year-to-date total to approximately 2,700.
- Completed 100 new customer connection projects.
- Repaired over 5,300 streetlights including 5,020 LED replacements.
- Completed 23 out of 64 Work Order Projects for FEMA rebuilds. The focus of these projects is on fixing imminent failures or situations that pose high risk to the public and included changing poles, insulators, cross-arms, splicing conductors and removing vegetation in close proximity to a conductor.
- Performed maintenance on 7 transmission lines including the inspection of 781 structures, guy wires and anchor rods, aimed at improving system reliability (i.e., decreasing outage frequency) with a focus on the 115kV grid. Two were completed in Q3 with the balance targeted for completion in the next quarter. LUMA has also started performing thermal scanning on transmission lines to identify and effect repairs prior to failures.
- Repaired and energized numerous underground faulted cables, most notably six underground faults located in San Juan that have historically had issues dating back to Hurricane Maria.
- Supported High-Level Assessments of 118 transmission lines (bringing the year-to-date total to 236) and 168 distribution feeders (bringing the year-to-date total to 371).

LUMA Quarterly Report

With respect to work related to substations, LUMA has taken the following actions:

- Repaired one mobile substation and completed inspections of trailers to ensure compliance with USDOT requirements.
- Completed lock replacements for all substations and repaired fencing, lighting, and roofs at Isla Grande and Martín Peña substations.
- Replaced and upgraded several relays across the island, as well as completed breaker and protection verification checks at Palo Seco and San Juan Steam Plant.
- Repaired and maintained distribution breakers across the system to facilitate the splitting of load, reducing the size (number of customers impacted) and duration of outages.
- Replaced several Remote Terminal Units (RTUs) thus allowing remote control and access, rebuilding the Guánica site to utilize technology (e.g., SCADA) to better locate faults / reduce outage durations and replace obsolete equipment, and repairing transformers at Aguirre and the San Juan Steam Plant.
- Supported High-Level Assessments (including Thermography) at 10 substations bringing the year-to-date total of these assessments to 113.

During Q3, LUMA responded to 8,735 outage events (a 23 percent reduction from the second quarter), leveraging outputs of the Outage Duration Reduction initiative (e.g., install reclosers, trip savers, and fault current indicators) to reduce both the size of outages (i.e., number of customers interrupted) and service restoration times. Additionally, LUMA deployed GPS tracking to assist in optimizing the dispatch of outage restoration teams.

Within Fleet, LUMA initiated measures to ensure no impact from the USDOT and ANSI certification process during the upcoming hurricane season, advancing the certification of 309 USDOT and 123 ANSI units. The focus on training continued as 1,920 hours of manufacturer training was conducted on aerial equipment for 40 mechanics, 272 hours of environmental training was offered to 34 employees, and 310 hours of OSHA training was provided to 31 employees. As expected, minor progress was achieved in locating missing fleet units as the number of unaccounted fleet units stands at 677 at the end of Q3, reducing the Q2 ending number of 686 by nine vehicles. LUMA also received 250 new vehicles during the quarter including 195 Light Duty and 55 Medium Duty vehicles.

During the third quarter, LUMA worked with three vegetation management contractors (approximately 350 full time workers), continuing to respond to urgent outages, customer requests, and public safety requests. During Q3, initial vegetation clearing, and herbicide treatments were completed at all substation sites. A second herbicide treatment at substation sites started in March and will continue into April 2022. LUMA started use of specialized equipment (e.g., Skid Steer Mulchers, Small/Medium Sized Forest Mulchers and Mini-Giraffe Saws), improving efficiency, and alleviating physically demanding work, thus improving safety. LUMA also started to perform maintenance vegetation work on distribution lines within the Bayamon and San Juan regions and transmission lines in the Ponce region. This effectively starts LUMA's transition from the Rapid Response to the Right-of-Way Reclamation phase of the Vegetation Management Plan. This transition will continue through Q4 as the mix of ROW Reclamation work to Rapid Response work will increase. LUMA will continue to support vegetation management-related outage response, after hours callouts, and other operational requirements as necessary to support safe and reliable system performance.

LUMA Quarterly Report

Reversing Q1 and Q2 trends, the Operations Department underspent its Q3 budget by \$17.7 million. Key factors included (1) reducing reliance on seconded line workers (further reducing Labor and Transportation, Per Diem, and Mileage costs), (2) making significant staffing adjustments in executing LUMA's Vegetation Management plan (reducing by approximately 100 FTEs made possible by the noted shift from Rapid Response to Right-of-Way Reclamation) and (3) ramping up of new LUMA Vegetation Management contracts with more favorable rates.

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

	1	2	3	4	5	6
		Operations				
		FY2022 Budget	Q3 Budget	Q3 Actual	Variance (\$)	Variance (%)
	Labor					
1	Salaries, Wages and Benefits	114.6	29.8	27.2	2.6	
2	Total Labor	\$ 114.6	\$ 29.8	\$ 27.2	\$ 2.6	9%
	Non-Labor					
3	Materials & Supplies	18.3	4.6	3.2	1.4	
4	Transportation, Per Diem, and Mileage	16.5	4.1	(0.7)	4.8	
5	Property & Casualty Insurance	-	-	-	-	
6	Security	-	-	-	-	
7	IT Service Agreements	3.2	0.8	-	0.8	
8	Utilities & Rents	9.0	2.3	0.3	1.9	
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	(0.3)	
12	Vegetation Management	51.3	12.8	10.7	2.1	
13	Regulation and Environmental Inspection	-	-	0.1	(0.1)	
14	Other Miscellaneous Expenses	12.3	3.0	(1.0)	4.0	
15	Other Expenses	-	-	-	-	
16	Total Non-Labor / Other Operating Expense	\$ 135.3	\$ 33.8	\$ 18.7	\$ 15.1	45%
17	Total Operating Expense	\$ 250.0	\$ 63.6	\$ 45.9	\$ 17.7	28%

LUMA Quarterly Report

2.2.3 Utility Transformation

LUMA's Utility Transformation department provides the technical, engineering, and programmatic framework required to deliver safe, reliable resilient and clean energy service to our 1.5 million customers, supports key initiatives as defined in the SRP and maintains focus on the long-range vision articulated in the IRP. This department also plans and implements the capital investment programs, including all federally funded work on the electric grid.

One important area of focus in the third quarter was to continue implementing improvements to the NEM program including streamlining the application processing and improving communication with renewable energy customers. As a result, LUMA has activated NEM service for over 21,000 customers since June 1, 2021 and approximately 5,900 during Q3. This represents almost 120 MW of distributed renewable generation. Additionally, LUMA is completing the required System Impact and Facilities Studies for the Tranche 1 RFP to integrate an additional 844 MW of solar and 220 MW of energy storage from 21 projects. We have completed all the system modeling, simulation, and analysis required for the System Impact Study. Also, and regarding Facilities Studies, site visits to all proposed 19 POIs have been completed, identifying improvements and expansions required to provide safe and reliable interconnect projects.

To help further empower the growth of renewable energy, LUMA has also identified the assets outside the POIs that require upgrades (network upgrades) to ensure the grid is capable of receiving the full output of the Tranche 1 projects. LUMA is currently performing a cost allocation of the POI and network upgrades to provide Interconnection Costs for each project. System Impact and Facilities Studies for the Tranche 1 RFP will be completed within Fiscal Year 2023. The Tranche 2 RFP is being developed by PREB and its independent coordinator, Accion Group, and is targeted to be published in June for an additional 500 MW of renewable energy and 250 MW of energy storage. LUMA is actively supporting Accion Group with the development of the Tranche 2 RFP by providing technical information to support their improvements to the RFP process.

LUMA identified areas of the system where simultaneous analysis of the transmission and distribution system is required to avoid overloaded equipment or reduced reliability. One subsequent area plan study was completed to evaluate practical alternatives to identify the parameters (i.e., what, where, when) of the system upgrades required to address identified future thermal, voltage, and reliability concerns. LUMA also conducted studies to support development of settings for distributed, inverter-based resources to maximize interconnection of these resources on the distribution system.

Across metering, the team continues to work on a meter replacement plan to upgrade the outdated AMR system. Repairs and replacements to existing field hardware improved the meter reading rate (for AMR) to 95 percent (as compared to 85 percent at commencement).

While legacy challenges remain, LUMA continued in Q3 to improve the reliability of electricity delivery to our customers. LUMA's outage duration reduction task force continued its deployment of technology and equipment to improve performance including deployment of reclosers, trip savers, fault current indicators and fusing practices. Process improvements have also been implemented to reduce outage response time to shorten customer outages that do occur. Reliability improvements were achieved in terms of both the number of outages and the duration of those outages in Q3 over Q2.

Among the actions taken by LUMA continued to ensure the long-term transformation of the electric system included:

LUMA Quarterly Report

- Addressing historic infrastructure challenges by assessing the adequacy of the transmission and distribution system design relative to industry standards for redundancy and contingency performance to guide future transmission line, substation and distribution line rebuild and reliability projects.
- Completed necessary updates to grid models to perform the system adequacy assessment studies.
- Collaborating with COR3 to better develop proposals and explore additional opportunities to seek funding under FEMA Section 404 in response to a competitive solicitation process. LUMA will seek PREB review and approval as necessary when the viability of the proposals is confirmed.
- Making significant advancement on PREB-approved federally funded initial SOWs with almost 50 projects completing steps involving foundational planning, engineering, and scoping, which is more than double as compared to the prior quarter.
- Continued to support system rebuilding efforts by creating functional specifications to help accelerate engineering work on capital projects. This includes foundational preparatory work due to the lack of documentation/drawings received from PREPA, such as investigating any models received from PREPA and fixing errors, high-level assessments of the assets and the development of distribution area plans.
- Continued implementation of the project governance model for the execution of FEMA and non-FEMA projects.
- Working with PREPA to finalize Agreed Operating Procedures that formalize the operating procedures on each of the PREPA legacy generation plants.
- Working with each generation owner and coordinated the system generation planned maintenance outage schedule for the 2022 calendar year.
- Issued the RFP for the replacement of the Energy Management System (EMS), is currently reviewing the proponent responses, and anticipates the selection of an EMS vendor during Q4.
- Implementing industry recognized software and processes to analyze mechanical loading conditions on existing structures and to facilitate proper designs, as well as utilizing this tool for evaluation and design of the Distribution Pole Replacement Program while at the same time enhancing the tool with additional data.

Continuing on our commitment to transform the energy system by empowering the growth of clean energy future across Puerto Rico, LUMA is working to connect four utility scale wind and solar energy facilities for 180 MW of renewable power and have activated the NEM for approximately 21,000 customers since beginning operations in June 2021 (5,900 customers in Q3), representing over 120 MW of distributed renewable generation.

Lastly, and as described in the Operations section, high-level assessments continued during the third quarter to determine critical areas for long-term improvement to grid reliability and resiliency. As of the end of Q3, 371 feeders, 236 transmission lines, and 113 substation sites have been assessed. LUMA also continued its grid reinforcement initiatives which included identifying a priority list of assets for repair or replacement. As of September 30, 2021, 758 items were identified as potentially negatively impacting reliability. As of the end of Q3 all items were assessed, prioritized and 25 percent were repaired / replaced. Further, LUMA continued work on the 37 worst performing feeders, of which the first six feeders' work has a planned completion targeting the end of June 2022. For the remaining 31 feeders, the high-level assessments have been completed, deficiencies identified, and in the process of being scoped, planned, and will be scheduled for remediation in Fiscal Year 2023.

LUMA Quarterly Report

Given the importance placed on utility transformation, the need to accelerate planning activities for grid transformation, and the need to address ongoing legacy issues, Utility Transformation overspent its Q3 labor budget by \$5.5 million. This was partially offset by less than the originally anticipated need for Professional and Technical Outsourced Services and corresponding Transportation, Per Diem and Mileage expenses, resulting in a total overspent of \$2.9 million.

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

		Utility Transformation				
		FY2022 Budget	Q3 Budget	Q3 Actual	Variance (\$)	Variance (%)
	Labor					
1	Salaries, Wages and Benefits	20.0	5.5	10.9	(5.5)	
2	Total Labor	\$ 20.0	\$ 5.5	\$ 10.9	\$ (5.5)	(100%)
	Non-Labor					
3	Materials & Supplies	0.6	0.2	0.0	0.1	
4	Transportation, Per Diem, and Mileage	1.9	0.5	0.3	0.2	
5	Property & Casualty Insurance	-	-	-	-	
6	Security	-	-	-	-	
7	IT Service Agreements	-	-	0.0	(0.0)	
8	Utilities & Rents	0.0	0.0	0.2	(0.2)	
9	Legal Services	-	-	-	-	
10	Communications Expenses	0.0	0.0	-	0.0	
11	Professional & Technical Outsourced Services	6.8	1.7	(0.6)	2.3	
12	Vegetation Management	-	-	-	-	
13	Regulation and Environmental Inspection	-	-	-	-	
14	Other Miscellaneous Expenses	0.8	0.2	0.0	0.2	
15	Other Expenses	-	-	-	-	
16	Total Non-Labor / Other Operating Expense	\$ 10.1	\$ 2.5	\$ (0.0)	\$ 2.6	102%
17	Total Operating Expense	\$ 30.1	\$ 8.0	\$ 10.9	\$ (2.9)	(37%)

LUMA Quarterly Report

2.2.4 Support Services

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

During Q3, LUMA maintained its company-wide commitment to operational and workplace safety. LUMA continued the mentorship program that matches each field crew with an experienced, skilled, and trained temporary employee, and continued to hold safety and technical training classes. However, after reporting significant improvements in Q2, LUMA saw increases in the number of safety incidents in Q3, primarily attributed to slips, trips, sprains, or strains, which accounted for 56% of recorded injuries during that time. Since taking operation of the T&D system, LUMA continues to see a cumulative reduction in safety incidences through its ongoing improvement initiatives over time, as LUMA's fiscal YTD total recordable injury rate, Days Away Restricted Duty (DART) rate and severity rate are 2.8, 1.48 and 9.0 respectively¹.

To help prioritize workplace safety, LUMA implemented a pre-work stretching campaign with its operational teams in March 2022. To further promote a safe workplace, in Q3 LUMA completed 235 worksite observations and 125 worksite inspections with field crews. LUMA also led 13 public safety training sessions across the island with 287 employees, first responders, private company employees, and school-aged children.

In Q3, LUMA also focused on crisis management, facilitating multiple simulation exercises within its Emergency Operations Center. On February 25, 2022, LUMA conducted an internal tabletop exercise with 65 employees and on March 15, 2022 LUMA's Emergency Operations Center conducted a mock drill to simulate the response to a Category 4 hurricane with external observers from FEMA, PREB, PREMB, P3A, and PREPA.

As part of LUMA's longstanding commitment to transparency, in March 2022, LUMA provided over 225,000 pages of documents, reports, regulatory filings, invoices, and payments received to various legislative bodies. LUMA continues its track record for transparency and continues to respond to requests for information and legislative inquiries. Responding to such inquiries requires considerable resources and time from LUMA.

LUMA also continued to collaborate with the Energy Bureau across a broad range of topics. During Q3, LUMA continued to work diligently on over 18 active regulatory dockets with the Energy Bureau, including 68 filings over the quarter and actively participating in eight Technical Conferences. In February 2022, LUMA participated in a Technical Conference to support discussions with the Energy Bureau and regarding the statistics submitted as part of its quarterly performance reporting, providing the Energy Bureau with additional information around monthly peak, inventory turns, turnover, renewable energy, customer complaints and touchpoints, and financial metrics. and has also support other third parties' work with the Energy Bureau to issue and manage work for new tranches of renewable energy.

¹ The safety performance figures included in this report have been developed using cumulative year-to-date safety metrics in place of quarterly averages as previously reported in order to align our reporting with standard industry practices. Note that the safety performance figures included in this report, and used in future, may not directly align with previously used calculations.

LUMA Quarterly Report

LUMA also implemented a number of process improvements that supported annual budgeting processes, facilities management, property insurance premium optimization, the completion of an initial enterprise risk assessment, and various security and compliance initiatives, all of which help strengthen and enable LUMA's ability to effectively and efficiently operate the T&D System.

To help raise public awareness of key actions and initiatives, LUMA continued to utilize an array of social media channels to communicate with our 1.5 million customers. LUMA connected with customers regarding LUMA's services, repair work in their area, tips for fraud awareness and public safety and celebrated LUMA's dedicated workers. In addition, LUMA also launched a multifaceted customer education campaign focusing on new bill designs and financial assistance programs, in an effort to continue to provide customers with necessary resources to both understand and pay bills.

LUMA continued to grow its relationships with Puerto Rico's community organizations, participating in community activities across the island in partnership with the American Red Cross of Puerto Rico and the Boys and Girls Club of Puerto Rico. One specific milestone for the Boys and Girls Club of Puerto Rico was reaching 1,000 participants across three different programs: "The Plan for the Future," "Diplomas to Degrees," and "Transition to College." Following the launch of the (LUCES) program in Q2, LUMA increased employee participation in Q3.

In an effort to procure the best value of goods and services while executing with the highest guidelines of compliance, ethics, and transparency, LUMA launched the Supplier's Portal on its website. This new portal allows suppliers to access procurement events as well as vendor registry requirements. In addition, as part of LUMA's goal to deliver a positive employee experience and maintain retention, in Q3 LUMA implemented various recruiting, internship and performance management initiatives. Specifically, nearly 3,000 LUMA employees received a performance evaluation, which was enabled through the development and implementation of various performance management trainings for employees, leadership, and managers. LUMA also did an external compensation analysis as part of a market evaluation ensure we remain competitive within the industry and Puerto Rico. In Q3, LUMA also celebrated the launch of its internship program

Key variances within the Support Services operational expenditures include lower than anticipated costs for utilities and rent, IT service agreements, legal services, communication expenses, and regulation and environmental inspection, offset by increases in miscellaneous expenses. The miscellaneous expenses include higher than anticipated bank fees, but overall spending for the quarter in Support Services is slightly under budget by 7%.

LUMA Quarterly Report

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

		1	2	3	4	5	6
			Support Services				
			FY2022 Budget	Q3 Budget	Q3 Actual	Variance (\$)	Variance (%)
	Labor						
1	Salaries, Wages and Benefits		36.6	9.6	13.3	(3.7)	
2	Total Labor		\$ 36.6	\$ 9.6	\$ 13.3	\$ (3.7)	(38%)
	Non-Labor						
3	Materials & Supplies		1.3	0.3	0.1	0.2	
4	Transportation, Per Diem, and Mileage		1.9	0.5	0.3	0.1	
5	Property & Casualty Insurance		15.4	3.9	4.1	(0.2)	
6	Security		9.3	2.3	2.4	(0.1)	
7	IT Service Agreements		27.2	6.8	1.2	5.6	
8	Utilities & Rents		10.0	2.5	1.6	0.9	
9	Legal Services		9.0	3.1	1.3	1.8	
10	Communications Expenses		2.7	0.7	0.0	0.7	
11	Professional & Technical Outsourced Services		35.9	9.4	7.1	2.4	
12	Vegetation Management		-	-	-	-	
13	Regulation and Environmental Inspection		4.0	1.0	-	1.0	
14	Other Miscellaneous Expenses		14.6	3.7	7.4	(3.7)	
15	Other Expenses		0.3	0.1	-	0.1	
16	Total Non-Labor / Other Operating Expense		\$ 131.6	\$ 34.2	\$ 25.5	\$ 8.8	26%
17	Total Operating Expense		\$ 168.2	\$ 43.9	\$ 38.8	\$ 5.1	12%

LUMA Quarterly Report

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

Taking essential actions that are vital to building the critical energy infrastructure that will support the recovery and transformation of Puerto Rico's T&D infrastructure remained a priority in Q3. Specifically, LUMA advanced projects by submitting 13 detailed SOWs to FEMA bringing the total projects submitted for FEMA approval to 14 projects at the end of the third quarter. This work to advance federally funded projects with FEMA will set LUMA up to obtain approvals in the coming months.

In addition to the detailed SOW submissions to FEMA throughout the quarter, LUMA simultaneously continued to advance its federally funded capital programs through preliminary engineering, planning and scope development work. LUMA has also made progress developing technical specification documents for substations, transmission lines, and feeders to improve the overall T&D system design, to eliminate risk, and to create redundancy in the system to avoid future failures. Fundamental and comprehensive technical documents of this nature that evaluate the substations and feeders and their overall integration in the system has never been completed in Puerto Rico and is integral to identify key repair and restoration activities. The considerable effort to develop these standards and technical documents will support LUMA's pipeline of federally funded capital programs.

While these actions taken by LUMA are essential to the development of an array of vital energy projects, they do not make up for the significant lack of work by the prior operator before June 1, 2021, and the time, effort, work and re-work it has taken to set up the new processes and concepts with COR3 and FEMA. While these legacy issues have impacted overall federal funding spending, which is below budget for Q3 FY 2022, LUMA does expect that initial FEMA and federal funded projects to initiate in 2022.

Federally funded capital activities were advanced during the third quarter most significantly within the Transmission, Distribution, Substation, and Enabling portfolios. Activities included engineering associated with transmission line, distribution line and substation rebuilding, progress made by the Funding Management Office to obtain federal funds, and Compliance and Studies activities. While progress to replace the Control Centers and the EMS system didn't result in larger costs for the quarter, progress is still being made that will have a significant impact on the T&D system. In Q3, LUMA continued to progress the Control Center Construction and Refurbishment program by selecting the site for the new Primary Control Center and preparing to select a vendor for the project. LUMA also advanced the EMS project and received proposals by the end of Q3 for evaluation.

LUMA was conscious of capital spending discipline through the quarter while advancing non-federally funded capital activities—most significantly within the Customer Experience, Distribution, and Enabling portfolios. Activities included completing distribution pole and conductor repairs, receiving purchased vehicles, and purchasing tools and PPE. LUMA completed 168 feeder assessments in Q3 with a total of 371 feeder assessments completed year-to-date. LUMA developed engineering work packages that will result in the replacement of 199 poles and completed constructability reviews that will result in the replacement of 74 poles. In Q3, LUMA received 250 new vehicles including 195 light duty and 55 medium duty. LUMA also purchased additional tools in Q3 and the required PPE needed to support the current field staff

LUMA Quarterly Report

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	Q3 Budget	Q3 Actual	Variance (\$)	Variance (%)	
1 Customer Experience		82.7	24.8	3.0	21.8		
2 Distribution		199.2	59.8	3.0	56.8		
3 Transmission		235.9	72.0	8.4	63.6		
4 Substations		89.1	26.7	7.2	19.5		
5 Control Center & Buildings		9.3	2.3	1.3	1.1		
6 Enabling		17.1	4.4	5.0	(0.6)		
7 Support Services		4.3	1.3	0.0	1.3		
8 Subtotal		\$ 637.7	\$ 191.3	\$ 27.9	\$ 163.4	85%	
9 Other							
10 2% Reserve for Excess Expenditures		12.8	3.8	-	3.8	100%	
11 Total Capital Expenditures		\$ 650.4	\$ 195.2	\$ 27.9	\$ 167.3	86%	

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

		1	2	3	4	5	6
		Non Federally Funded Capital					
Improvement Portfolio		FY2022 Budget	Q3 Budget	Q3 Actual	Variance (\$)	Variance (%)	
1 Customer Experience		13.1	3.9	1.0	2.9		
2 Distribution		35.3	10.6	5.7	4.9		
3 Transmission		1.7	0.5	(0.0)	0.5		
4 Substations		18.9	5.7	0.8	4.9		
5 Control Center & Buildings		3.2	0.8	0.7	0.1		
6 Enabling		41.3	11.5	17.4	(5.9)		
7 Support Services		8.2	2.1	0.7	1.4		
8 Subtotal		\$ 121.6	\$ 35.1	\$ 26.3	\$ 8.8	25%	
9 Other							
10 2% Reserve for Excess Expenditures		2.4	0.7	-	0.7	100%	
11 Total Capital Expenditures		\$ 124.1	\$ 35.8	\$ 26.3	\$ 9.5	26%	

LUMA Quarterly Report

3.0 T&D Activities by Portfolio

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

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

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

Table 3-1 below provides a summary of FY 2022 third quarter spending by portfolio and includes federally funded capital expenditures, non-federally funded capital expenditures and program-related operational expenditures. The following subsections 3.1.1 through 3.1.7 provide Improvement Program summaries, including spending summaries, and status updates on material² programs. For a comprehensive listing of SRP milestones for all SRP Improvement Programs approved for FY 2022, please refer to the schedule package included with this report: Exhibit 1, Tab 'SRP Milestones'.

In the third quarter, LUMA made advancement to Improvement Programs with the following key actions:

- Continued to conduct key training across the organization with a focus on proper equipment usage, safety, environmental and employee development.
- Completed a number of vital assessment and in many cases, replacements, on various poles, lines, substations and other key infrastructure.
- Advanced fleet certification and purchases to prepare for the upcoming hurricane season.
- Made vast improvements through initial clearings at all substations while transitioning to the next phase of the Vegetation Management Plan.
- Participated in several workshops and conferences to discuss LUMA's progress on Renewables, EE, and DR.

In addition, LUMA was also able to achieve savings in line with its plans to bring spending in line with aggregate annual budgets. This budget saving was realized even with inflation near four-decade highs

² Material programs include those programs with budgets that are more than 5 percent of the overall FY 2022 portfolio budget.

LUMA Quarterly Report

and with a heightened focus to increase training and human resource capabilities in both LUMA's Health, Safety, Environmental, Quality (HSEQ) and HR Programs.

As discussed in previous quarterly report, key challenges limiting federally funded improvement program spending include:

- 1) The lack of engineering, process design development and structure advancement for federal funding by PREPA prior to June 2021,
- 2) The significant organizational effort to stabilize operations given the large amount of undisclosed issues and omissions and subsequent deficiencies found at commencement,
- 3) FEMA and COR3 review and approval process development taking longer than anticipated, and
- 4) A complex consolidated procurement manual based on federal procurement standards.

Consistent with the delays described in the first and second quarter, a delayed deployment of federally funded dollars are the primary cause for lower federal funded capital in various portfolios, most notably: Customer Experience, Distribution, Transmission and Substations. LUMA continues to achieve progress on developing the A&E capacity; however, the consolidated procurement process, in addition to the time it takes to obtain FEMA and COR3 approval, has taken longer than anticipated.

While substantial progress has been made to advance capital projects, the complex nature of obtaining federal funding compounded with the significant issues, deficiencies and backlogs of work LUMA faced upon taking over operations on June 1, 2022, required LUMA to prioritize addressing the backlogs, providing extensive training and developing foundational systems. This work is the underpinning for federally funded projects and foundational to the organization but has caused delays in receiving approval for FEMA-eligible projects. Further, the inherent complexity of the consolidated procurement manual is resulting in delays in procuring some services related to improvement programs.

Overall, portfolio spending was lower than budgeted with Operational, Capital Non-Federally Funded and Capital Federal Funded spending coming in under budget. Capital non-federally funded spending saw a slight increase from the second quarter, with a push to have the fleet vehicles on island prior to hurricane season, but remained under budget for the quarter. Federally funded capital saw some near-term deferral and LUMA continues to make progress by submitting multiple detailed SOWs for FEMA approval throughout the third quarter and working to allocate the right resources in other areas to ensure progress is being made to counter any program delays.

LUMA Quarterly Report

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

LUMA Quarterly Report

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 Geospatial Information System (GIS) data entry of all streetlights.

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

	FY 2022 Budget	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$80.0	\$24.0	\$2.8	\$21.2	88%	Key Activities <ul style="list-style-type: none"> Completed desktop validation of streetlight field assessments that were conducted in Q2 for five municipalities for a total of 22,415 streetlights. Additional high-level assessments completed and under review for two other municipalities. Multiple work order packages submitted to FEMA. Variance <ul style="list-style-type: none"> The total spend for this program is lower than anticipated because minimal repairs were completed in Q3 as LUMA procures FEMA compliant construction contracts. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	\$80.0	\$24.0	\$2.9			
Non-Federally Funded	-	-	(\$0.1)			
OpEx	-	-	-			
SRP	\$25.0	\$7.5	\$0.9			

LUMA Quarterly Report

BILLING ACCURACY AND BACK OFFICE

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

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

	FY 2022 Budget	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$14.6	\$4.4	\$2.9	\$1.4	33%	Key Activities <ul style="list-style-type: none"> Completed User Acceptance Testing on the new LUMA bill and successfully launched the first ever LUMA bill to customers. Continued development to have cancel/recharge details display on bills. Developed application to support electronic service order issuance and completion; developed IT support process for the service order application. Reduced the number of unbilled accounts through account corrections. Developed and implemented meter inventory receipt and entry process for CC&B. Completed User Acceptance Testing on FA Daily report file, unbilled account issues, and start service agreement bill cycle. Variance <ul style="list-style-type: none"> Reduction due to increased spend in previous quarter. Timeline <ul style="list-style-type: none"> On track to achieve roll out of the bill redesign and removal of old equipment by Q4, subject to PREB approval timeline.
Federally Funded	-	-	\$0.0			
Non-Federally Funded	\$1.4	\$0.4	\$0.5			
OpEx	\$13.2	\$4.0	\$2.4			
SRP	\$5.0	\$1.5	\$1.0			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$6.3	\$1.9	(\$0.0)	\$1.9	100%	Key Activities <ul style="list-style-type: none"> Received the remaining 18 RM-17 repaired portable meter testing equipment that was pending from PREPA. Finished the calibration and maintenance of all PREPA testing equipment. Met with meter equipment manufacturer, Radian to discuss the software needed and its integration with Oracle Customer Care & Billing. Testing 4,000 meters monthly throughout the quarter for a total of 12,000. Variance <ul style="list-style-type: none"> Delay in purchasing meter testing equipment due to vendor quote missing key specifications. Received quote from the vendor for meter testing machines and additional equipment and evaluation of the quote has begun. Timeline <ul style="list-style-type: none"> On track to establish meter shop building & purchase test equipment in Q4 2022.
Federally Funded	\$0.3	\$0.1	-			
Non-Federally Funded	\$5.7	\$1.7	(\$0.1)			
OpEx	\$0.3	\$0.1	\$0.1			
SRP	\$5.9	\$1.8	(\$0.0)			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$6.1	\$1.8	\$0.0	\$1.8	99%	Key Activities <ul style="list-style-type: none"> Arranged vendor meetings with three bidders for presentation on their AMI meters and control center system integration. Two additional bidder meetings are pending. Working on the Business Case for FEMA and HUD funds (including cost of implementation, roadmap, and a pilot) to project the cost of the AMI Implementation. Continued to pursue federal funding for the AMI program: <ul style="list-style-type: none"> AMI listed in inventory of unmet needs in the HUD CDBG-DR program plan. Once HUD approves the plan, LUMA will proceed with seeking PREB approval and formal funding application. Variance <ul style="list-style-type: none"> Variance is mainly due to a reduced amount of work performed after HUD's request for a more detailed assessment in order to receive federal funding for this program. Timeline <ul style="list-style-type: none"> Not an SRP program.
Federally Funded	-	-	\$0.1			
Non-Federally Funded	\$4.1	\$1.2	(\$0.0)			
OpEx	\$2.0	\$0.6	-			
SRP	-	-	-			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$87.2	\$26.2	\$2.9	\$23.3	89%	Key Activities <ul style="list-style-type: none"> Completed reliability analysis on 61 feeders of the initial 151 feeders. Completed planning and analyses on 79 feeders of the initial 151 feeders. Completed quality assurance stage for reliability analysis for 39 of the initial 151 feeders. Completed quality assurance stage for planning analysis on 69 of the initial 151 feeders. Completed task order SOWs on 43 of the initial 151 feeders. Variance <ul style="list-style-type: none"> Variance is mainly due to additional engineering activities required and procurement taking longer than anticipated because of the complex nature of federal procurement requirements and processes. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	\$81.7	\$24.5	\$1.0			
Non-Federally Funded	\$5.5	\$1.7	\$1.9			
OpEx	-	-	\$0.0			
SRP	\$55.5	\$16.6	\$1.8			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$85.1	\$25.5	\$4.6	\$20.9	82%	Key Activities <ul style="list-style-type: none"> 47 engineering work order packages completed that will replace 199 poles. 37 packages completed constructability reviews, that will replace 74 poles. Construction completed on 13 projects that replaced 25 poles. Variance <ul style="list-style-type: none"> Variance was due the following delays: <ul style="list-style-type: none"> The formulation of new Work Order packages was delayed by the implementation of a new tool to validate the structural compliance of the designs. The execution of the Work Order Packages in the field was lower than anticipated due to the delay in the commencement of the RFP for contractors. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	\$85.1	\$25.5	\$1.0			
Non-Federally Funded	-	-	\$3.6			
OpEx	-	-	\$0.1			
SRP	\$85.1	\$25.5	\$4.6			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$38.9	\$11.7	\$0.9	\$10.8	93%	Key Activities <ul style="list-style-type: none"> Launched recloser installation program with 43 high priority reclosers in various stages of planning and engineering with four completed and in-service. Submitted broader recloser installation initiative requiring FEMA approval including recommendations on 138 3-phase reclosers and 283 1-phase reclosers on 131 feeders. Included 828 Fault Circuit Indicators, 1,684 fuse installations, and 609 fuse removals into recommendations for FEMA approval. Variance <ul style="list-style-type: none"> Variance is mainly due to additional engineering activities required and procurement taking longer than anticipated because of the complex nature of federal procurement requirements and processes. Timeline <ul style="list-style-type: none"> Not an SRP program.
Federally Funded	\$12.7	\$3.8	\$0.6			
Non-Federally Funded	\$26.0	\$7.8	\$0.2			
OpEx	\$0.3	\$0.1	-			
SRP	-	-	-			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$25.3	\$7.6	\$0.5	\$7.1	94%	Key Activities <ul style="list-style-type: none"> 168 feeder assessments were completed in the third quarter, leading to a total of 371 feeder assessments year-to-date. This represents 33% of currently identified 1,128 feeder assessments required. Variance <ul style="list-style-type: none"> Canceled Preliminary Engineering Data Collection (PEDC) RFP and redeveloped for re-issued. This will delay most of the expenditures in this program brief which is anticipated to start work in Fiscal Year 2023. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	\$19.7	\$5.9	\$0.5			
Non-Federally Funded	\$3.8	\$1.1	-			
OpEx	\$1.8	\$0.5	-			
SRP	\$25.3	\$7.6	\$0.5			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$134.7	\$41.6	\$0.8	\$40.8	98%	Key Activities <ul style="list-style-type: none"> Submitted the first of three-microwave radio system redundancy/resiliency project groups for FAAST numbers. Projects addressing 50 towers approved by the Energy Bureau and one submitted to FEMA with task order SOW presented. Field mobile devices enrolled in FirstNet First Responder system achieved. Upgraded end of life assets from 3G to 4G t (meter modems). Variance <ul style="list-style-type: none"> Variance is mainly due to the time required for LUMA to define and finalize the planning phase of the program which is taking longer than anticipated. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	\$134.6	\$41.6	\$0.7			
Non-Federally Funded	-	-	-			
OpEx	\$0.1	\$0.0	\$0.2			
SRP	\$134.7	\$41.6	\$0.8			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$52.0	\$15.6	\$7.3	\$8.3	53%	Key Activities <ul style="list-style-type: none"> Completed planning assessments on 42 transmission line projects. FEMA numbers have been assigned to 29 of the 42 projects. Functional specifications for all 42 projects started. Variance <ul style="list-style-type: none"> Variance is mainly due to additional engineering activities required and procurement taking longer than anticipated because of the complex nature of federal procurement requirements and processes. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	\$52.0	\$15.6	\$7.4			
Non-Federally Funded	-	-	(\$0.1)			
OpEx	-	-	\$0.0			
SRP	\$5.0	\$1.5	\$0.7			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$46.1	\$13.8	\$0.1	\$13.7	99%	Key Activities <ul style="list-style-type: none"> Completed 118 high-level assessments for a total of 236. (Related to Transmission Line Inspection). Completed detailed engineering review of 63 HLA line segment results. Reviewed and considered for replacement 89 structures. Initiated initial work packages and engineering for 4 projects (2200, 6700, 13300, 9800). Completed construction on line 50500 located at Mora Transmission Center. Variance <ul style="list-style-type: none"> Variance is mainly due to data analysis, engineering and standards reviews required for project scope definition taking longer than anticipated and procurement taking longer than anticipated because of the complex nature of federal procurement requirements and processes. Engineering and construction work started with internal resources. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	\$46.1	\$13.8	\$0.1			
Non-Federally Funded	-	-	\$0.0			
OpEx	-	-	-			
SRP	\$40.0	\$12.0	\$0.1			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$33.6	\$10.1	\$3.9	\$6.2	61%	Key Activities <ul style="list-style-type: none"> Completed high-level assessments for an additional ten substation sites. Completed planning analysis on three circuit breaker projects. Completed functional specifications on four projects. Completed Level 3 cost estimates on nine projects. Variance <ul style="list-style-type: none"> Variance is mainly due to additional engineering activities required and procurement taking longer than anticipated because of the complex nature of federal procurement requirements and processes. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	\$24.0	\$7.2	\$3.8			
Non-Federally Funded	\$7.0	\$2.1	\$0.1			
OpEx	\$2.6	\$0.8	-			
SRP	\$20.6	\$6.2	\$2.4			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$26.0	\$7.8	\$0.6	\$7.2	92%	Key Activities <ul style="list-style-type: none"> Completed planning analysis on six metal-clad switchgear projects. Completed planning functional specifications on one metal-clad switchgear project. Variance <ul style="list-style-type: none"> Variance is mainly due to additional engineering activities required and procurement taking longer than anticipated because of the complex nature of federal procurement requirements and processes. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	\$25.0	\$7.5	\$0.6			
Non-Federally Funded	\$1.0	\$0.3	-			
OpEx	-	-	-			
SRP	\$15.0	\$4.5	\$0.4			

LUMA Quarterly Report

TRANSMISSION SUBSTATION RELIABILITY IMPROVEMENTS

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

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

	FY 2022 Budget	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$19.8	\$5.9	\$0.3	\$5.7	95%	Key Activities <ul style="list-style-type: none"> Continued to plan the replacement of aging high voltage infrastructures such as transformers, circuit breakers, and other high voltage equipment that are deemed end-of-life and have poor condition assessment ratings. Continued the procurement process for several priority transformers and a Master Service Agreement for circuit breakers. Continued with restoration/replacement of out-of-service equipment that could be completed during initial assessments. Variance <ul style="list-style-type: none"> Variance is mainly due to material and equipment specification requirements (aligned with industry codes and standards) and procurement taking longer than anticipated because of the complex nature of federal procurement requirements and processes. Timeline <ul style="list-style-type: none"> Not an SRP program.
Federally Funded	\$17.0	\$5.1	(\$0.0)			
Non-Federally Funded	\$2.8	\$0.8	\$0.3			
OpEx	-	-	-			
SRP	-	-	-			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$16.1	\$4.8	\$0.1	\$4.7	97%	Key Activities <ul style="list-style-type: none"> Completed the replacement of substation gate padlocks with LUMA purchased padlocks with key control to improve physical security. Started second round of herbicide application at critical substation sites. Submitted detailed SOW for Category 1 substations for FEMA review to address physical security shortfalls that impact the electric grid performance. Issued RFP for construction contractor in January 2022 and proposals were received on March 4, 2022. Variance <ul style="list-style-type: none"> Variance is mainly due to additional engineering activities required and procurement taking longer than anticipated because of the complex nature of federal procurement requirements and processes. Timeline <ul style="list-style-type: none"> It was anticipated that we would obtain funding in Q3 and be able to start federally funded work, but this will be delayed and is reliant on FEMA approval timelines.
Federally Funded	\$12.9	\$3.9	\$0.2			
Non-Federally Funded	\$0.6	\$0.2	(\$0.0)			
OpEx	\$2.6	\$0.8	(\$0.0)			
SRP	\$15.2	\$4.6	\$0.1			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$11.3	\$3.4	\$3.0	\$0.4	11%	Key Activities <ul style="list-style-type: none"> Developed fusing strategy to replace and document distribution line fusing to ensure coordination with mainline breaker. Pilot project is currently underway. Continue review of wide area protection coordination with a focus on 115kV and 38kV. Developed schedule for ground grid integrity tests for initial projects. Began development of anti-theft copper clad steel grounding standards. Variance <ul style="list-style-type: none"> Variance is mainly due to additional effort required to advance studies, procedures, and standards in support of federally funded and non-federally funded project work. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	\$6.3	\$1.9	\$2.7			
Non-Federally Funded	\$3.3	\$1.0	\$0.1			
OpEx	\$1.7	\$0.5	\$0.1			
SRP	\$10.0	\$3.0	\$2.7			

LUMA Quarterly Report

3.1.5 Control Center and Buildings

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

FACILITIES DEVELOPMENT & IMPLEMENTATION

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

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

	FY 2022 Budget	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$16.3	\$4.3	\$2.0	\$2.3	54%	Key Activities <ul style="list-style-type: none"> Finalized award for LUMA generator repairs and maintenance. Performed load studies and repairs on 128 generators for commercial properties. Implemented Facilities Services request system - Service Now. Started development of Facilities Asset Management Data Base. Finalized federally funded project strategy and implementation plan. Finalized Federal process for securing a brokerage firm to assist with procurement of land and leases. Variance <ul style="list-style-type: none"> Variance is mainly due to additional engineering activities required and procurement taking longer than anticipated because of the complex nature of federal procurement requirements and processes. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	\$7.8	\$2.0	\$0.4			
Non-Federally Funded	\$3.0	\$0.7	\$0.7			
OpEx	\$5.4	\$1.6	\$1.0			
SRP	\$14.8	\$3.9	\$1.8			

LUMA Quarterly Report

CRITICAL ENERGY MANAGEMENT SYSTEM UPGRADES

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

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

	FY 2022 Budget	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$1.0	\$0.3	\$0.7	(\$0.4)	(151%)	Key Activities <ul style="list-style-type: none"> Coordinated EMS vendor demos with four separate vendors. Developed proposal evaluation methodology and coordinated proposal analysis process. EMS vendor proposals received on March 11, 2022. Proposal evaluation in process with target to award in May 2022. Integrated relevant system operation procedures into the EMS procurement package. Developed procurement process for leasing EMS temporary housing location. Formalized FEMA FAAS number consolidation (EMS and Control Center projects now managed under a single FAAS number). Variance <ul style="list-style-type: none"> Variance is mainly due to the accelerated EMS implementation and completion of necessary system operation procedures that impact EMS implementation. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	\$0.5	\$0.2	\$0.6			
Non-Federally Funded	\$0.2	\$0.1	\$0.1			
OpEx	\$0.3	\$0.1	\$0.0			
SRP	\$0.7	\$0.2	\$0.5			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$1.0	\$0.2	\$0.3	(\$0.0)	(6%)	Key Activities <ul style="list-style-type: none"> Coordinated A&E Design Team of Record (DTOR) RFP vendor presentations. Developed evaluation methodology and coordinated proposal analysis process; DTOR vendor proposals received, proposal evaluation completed, and award was issued on February 18, 2022. Contract negotiations initiated with target date to sign contract by beginning of Fiscal Year 2023. Primary Control Center site selection completed. Secondary Control Center site selection in process. Exploring options for land acquisition. Formalized FEMA FAAS number consolidation (EMS and Control Center projects now managed under a single FAAS number). Variance <ul style="list-style-type: none"> No material variance. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	\$1.0	\$0.2	\$0.3			
Non-Federally Funded	-	-	-			
OpEx	-	-	-			
SRP	\$1.0	\$0.2	\$0.3			

LUMA Quarterly Report

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 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 ROW corridors (especially those impacting the T&D systems).

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

	FY 2022 Budget	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$50.0	\$12.5	\$8.5	\$4.0	32%	Key Activities <ul style="list-style-type: none"> LUMA is working with three vegetation management contractors (approx. 350 full-time workers) and continuing to respond to urgent outage events and customer / public safety requests to restore service as soon as possible and remediate tree hazards. Finished initial vegetation clearing and herbicide treatments at all substation sites. A second herbicide treatment at substation sites began in March 2022 and will continue into April 2022. LUMA introduced the use of specialized equipment (e.g., Skid Steer Mulcher, Small/Medium Sized Forest Mulcher, and Mini-Giraffe Saw) on ROW to complete work more effectively/ efficiently than past practices and decisions in Puerto Rico. Initiated reclaiming of ROW in Bayamon, San Juan, and Ponce. This marks transition from the Rapid Response to the Right-of-Way Reclamation phase of the Vegetation Management Plan. This transition will continue through Q4 as the mix of ROW Reclamation work to Rapid Response work is projected to increase. Variance <ul style="list-style-type: none"> Variance mainly stems from attempt to manage to previous quarter variances and improving operations throughout the fiscal year. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	-	-	-			
Non-Federally Funded	-	-	-			
OpEx	\$50.0	\$12.5	\$8.5			
SRP	\$50.0	\$12.5	\$8.5			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$48.4	\$14.6	\$19.4	(\$4.8)	(33%)	Key Activities <ul style="list-style-type: none"> Training: <ul style="list-style-type: none"> 1920 hours of training were completed for 40 mechanics on the aerial equipment by the manufacturer. 272 hours of training on EPA laws applicable to the fleet area were completed for 34 employees. 31 employees were certified in 10 hours of OSHA safety training for a total of 310 hours. Fleet Certification: <ul style="list-style-type: none"> To prepare for the upcoming hurricane season, we initiated a plan to advance USDOT and ANSI certifications of the fleet. 390 USDOT and 123 ANSI units were certified, preventing the need to stop units for certifications in the middle of hurricane season. New Fleet: <ul style="list-style-type: none"> 250 new vehicles were received: 195 Light Duty & 55 Medium Duty. Fleet Missing Units: <ul style="list-style-type: none"> Identified 9 fleet units previously unaccounted for reducing the number of unaccounted vehicles to 677. Variance <ul style="list-style-type: none"> Variance is mainly due to the new units that arrived in February (\$8 million) and March (\$2.7 million). Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	\$1.6	\$0.5	\$0.0			
Non-Federally Funded	\$23.6	\$7.1	\$12.8			
OpEx	\$23.2	\$7.1	\$6.7			
SRP	\$48.4	\$14.6	\$19.4			

LUMA Quarterly Report

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 the funding management office and 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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$11.8	\$3.0	\$3.6	(\$0.6)	(22%)	Key Activities <ul style="list-style-type: none"> Undertook Grant Management and issued resolution activities of federally funded projects as required including for: <ul style="list-style-type: none"> 428 Public Assistance, 406 Hazard Mitigation and Environmental and Historic Preservation (EHP) related project work to ensure FEMA conformance. Procurement & contracting reviews in accordance with LUMA's Consolidated Procurement Manual. Federal funding reimbursements. Continued to implement core PMO processes for managing capital projects, including processes, procedures, tools, templates, governance training plan, syllabus, and manuals to implement for project portfolio management, scheduling, cost control, contract administration and reporting. Continued recruitment for the Project and PMO office and undertook training activities as required. Planned implementation of new Document Control system for capital project work. Variance <ul style="list-style-type: none"> Variance is higher mainly due to the additional support required for Program Management services by external consultants and planning of the Document Control System work including support during procurement by PMO. Timeline <ul style="list-style-type: none"> Not an SRP program.
Federally Funded	\$11.5	\$2.9	\$3.9			
Non-Federally Funded	\$0.3	\$0.1	(\$0.3)			
OpEx	-	-	-			
SRP	-	-	-			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$10.9	\$2.7	\$4.9	(\$2.2)	(79%)	Key Activities <ul style="list-style-type: none"> Inventoried 25% of the tools that will comprise our tool crib. Continue to purchase required PPE to support current field staffing levels. Continued to address critical tool inventory gaps (Hot-sticks, rubber goods, grill, presses, ground chains, etc.) through purchases. Initiated procurement process for tool crib supply. Tool & PPE Inventory started. All high priority PPE and necessary equipment for employees to work safely have been purchased and a training program has been implemented. Also, unusable, and worn-out tools & PPE were replaced. Variance <ul style="list-style-type: none"> The difference is mainly due to a significant amount of the tool purchases necessary for the safe and reliable operations of the T&D System. The increase in spend for Q3 is related to the cost for tools purchased in Q2 moved into Q3 as many large value items were backordered and arrived late. We anticipate a similar backorder issue in Q4. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	-	-	-			
Non-Federally Funded	\$10.9	\$2.7	\$4.9			
OpEx	-	-	-			
SRP	\$10.9	\$2.7	\$4.9			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$9.9	\$2.5	\$6.5	(\$4.0)	(163%)	Key Activities <ul style="list-style-type: none"> Collectively, LUMA provided over 27,000 hours of technical skills and safety training at LUMA's College for Technical Training in the quarter with over 325 students completing a training course at LUMA College for Technical Training during the third quarter. LUMA College continued training by offering 18 courses focused on upskilling and safety. Continued on-the-job mentorship with experienced, temporary workers. Levels of experienced, temporary workers decreased during the period as permanent workers developed skills and competencies from training and practical experience with temporary workers. Variance <ul style="list-style-type: none"> Variance is mainly due to significantly more training required than anticipated to support the operations of the electrical system. This includes development and implementation of the apprenticeship / upskilling program, conducting required and essential safety training, on-the-job mentoring, and training. Timeline <ul style="list-style-type: none"> On-going training assessments will be required to determine whether the overall timeline to achieve the remediated state in Q4 of FY 2025 will require adjustment.
Federally Funded	-	-	-			
Non-Federally Funded	-	-	-			
OpEx	\$9.9	\$2.5	\$6.5			
SRP	\$9.9	\$2.5	\$6.5			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$63.5	\$15.9	\$14.5	\$1.4	9%	Key Activities <ul style="list-style-type: none"> Completed Health Fairs in several key areas including: Monacillos, San Juan, Bayamon, and Caguas Regions. Conducted Wellness Program Virtual Activity: New Year Healthy Life January, Go Red for Woman, Make a Wish, Down Syndrome. Ready to receive rollovers into the LUMA 401k Plan from other PR only qualified Plans. Trained employees on Specific, Measurable, Achievable, Relevant, and Time-Bound (SMART) goals and performance management to effectively set goals for the performance period. Consolidated vendors for pre-hire checks to efficiently manage to onboard and integrate with our systems. Completed Sexual Harassment and Workplace Harassment training in most Regions, including orientation about how to implement progressive discipline. Arecibo and Mayaguez Regions still pending. Designed and developed an internship program to identify new talent and provide more opportunities for talent in Puerto Rico. Designed and implemented performance management tools and processes to measure, document, and recognize performance. Variance <ul style="list-style-type: none"> No material variance. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	-	-	-			
Non-Federally Funded	\$0.3	\$0.1	\$0.2			
OpEx	\$63.3	\$15.8	\$14.3			
SRP	\$0.5	\$0.1	\$0.1			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$9.7	\$2.4	\$0.1	\$2.3	97%	Key Activities <ul style="list-style-type: none"> Prepared a detailed Annual Compliance Report for the Renewable Energy Portfolio filed with the Energy Bureau on March 31, 2022, highlighting progress on renewable integration to-date through the interconnection of distributed generation, advancement of the Offshore Wind Study Program, continued updates to Hosting Capacity map and LUMA's participation in the large-scale renewable procurement work ongoing for Tranches 1 and 2. Prepared for and participated in technical workshops regarding the state of the grid, potential infrastructure, and policy changes to support electric vehicles expansion, and an overview of LUMA's DR pilot programs. Continued development of the Energy Efficiency and DR Transition Period Plan and presented the work plan and overall status in a technical conference with the Energy Bureau. Variance <ul style="list-style-type: none"> Activities associated with this program have been slower than anticipated and have resulted in less spending. Timeline <ul style="list-style-type: none"> Not an SRP program.
Federally Funded	-	-	-			
Non-Federally Funded	-	-	-			
OpEx	\$9.7	\$2.4	\$0.1			
SRP	-	-	-			

LUMA Quarterly Report

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	Q3 Budget	Q3 Actuals	Q3 Variance (\$)	Q3 Variance (%)	Status
Program Total	\$5.5	\$1.7	\$0.2	\$1.5	90%	Key Activities <ul style="list-style-type: none"> In conjunction with the LEOC, defined WebEOC, a web-based emergency management information system, requirements and business use case for the Corporate Incident Management Process. Improved data quality from SCADA to Pi Historian. Enabled business access to information by adding Pi DatLink and Pi Vision. Updated Customer Count Web page to reflect number of customers without power more accurately. Developed SOW for deployment of Networks over Count Web page to reflect number of customers without power more accurately. Performed several updates of the Outage Management System (OMS) software to improve application's performance and functionality. Variance <ul style="list-style-type: none"> Variance mainly attributed to a slow start of the projects that compose the program and complex process to get FEMA approval. In some cases, procurement is taking longer than anticipated because of the complex nature of federal procurement requirements and processes. Timeline <ul style="list-style-type: none"> No expected variance in achieving program milestones.
Federally Funded	\$4.3	\$1.3	\$0.1			
Non-Federally Funded	\$1.1	\$0.3	\$0.0			
OpEx	\$0.1	\$0.0	\$0.0			
SRP	\$4.0	\$1.2	\$0.1			

LUMA Quarterly Report

4.0 Federal Funding Activity

4.1 Summary of Activity

As noted above and in previous reports, many of the Improvement Programs have begun federal funding activities. Please refer to the tables included in Section 4.0 for updates on the activities completed as part of these programs. As part of these efforts, LUMA concluded the third quarter of fiscal year 2022 having continued to advance the federal funding work with focus on (i) FEMA processes and acceptance; (ii) preliminary engineering efforts; and (iii) preparatory activities for future work – both from an engineering perspective and construction preparedness perspective.

As reported during the previous reports, LUMA has established strong working relationships with COR3 and FEMA including the FEMA Environmental and Historic Preservation (EHP), 406 Hazard Mitigation (406HM) and 404 Hazard Mitigation (404HM) teams. This collaborative working relationship continued throughout the reporting period and focused on further establishing the necessary basis of understanding to satisfy FEMA procedural requirements. A few examples of such procedural related activities undertaken during the third quarter include:

- Continued development of strategies for additional hazard mitigation under FEMA's 406HM for distribution, transmission, substation and streetlights projects. These strategies are meant to establish a common understanding between the parties and streamline the determination of 406HM eligible work.
- LUMA continues to develop plans, in coordination with COR3, for various projects eligible for 404HM.
- LUMA started to develop requirements in coordination with COR3 for Request for Reimbursement (RFR).
- LUMA's Environmental, Land, and Permitting teams developed a process in consultation with FEMA's EHP group for the review and authorization of environmental, geotechnical, and engineering studies required for projects. This work included following up on supplemental information requests and the receipt of feedback as part of the submittal of the detailed SOW for the Cataño Modernization and Hardening project to COR3 and FEMA.
- In conjunction with FEMA, LUMA began completion of wetland and biological studies to develop appropriate mitigation strategies and to streamline project review and consultation processes for projects in environmentally sensitive areas.

The activities noted above are foundational in nature and are fundamental to the critical infrastructure work to be conducted in the months and years to come. These have and will require time to finalize and will require on-going collaboration between COR3, FEMA and LUMA as we collectively navigate the complexities of the T&D work being undertaken. As was referenced in the previous quarter report, the activities captured here as well as preliminary engineering work were expected to have been advanced prior to LUMA's June 2021 commencement date. The inaction during the first five months of 2021 created a significant impact on the anticipated FY 2022 results which were developed in the fall 2020. As a result, LUMA FY 2022 federally funded expenditures will be substantially lower than the original budget.

LUMA's current plan remains as expressed in the March FEMA 90-day plan update presentations with anticipation of federally approved construction activities to begin in Q4 of FY 2022. This construction will

LUMA Quarterly Report

involve relatively targeted projects that will constitute the beginning of more significant construction being undertaken over time. For example, the FY 2022 Q4 construction will include vital programs such as streetlight repairs, critical distribution pole repair, and minor substation repair.

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

- Advanced project work towards finalizing detailed SOWs for submission to COR3 and FEMA. This effort involved working with LUMA's A&E firms and resolving numerous issues in the absence of technical drawings and reliable data from PREPA and resulted in field assessment being undertaken to support the development of said detailed SOWs. This effort also included 406HM and EHP development work.
- In October 2021, LUMA submitted the detailed SOW for the Cataño Modernization and Hardening project to COR3 and FEMA. LUMA continued discussions with COR3/FEMA to work through key project details for 406 hazard mitigation eligibility and EHP requirements. This submission remains under review by FEMA in collaboration with the LUMA team.
- In March 2022, LUMA submitted the detailed SOW (including 406HM & EHP requirements) for five streetlight projects (municipalities of Aguada, Maunabo, Guanica, Lajas, Luquillo) to COR3 and FEMA followed by ongoing discussions with COR3/FEMA to work through key project details for 406 hazard mitigation eligibility and EHP requirements. By the end of Q3, these submissions remained under review by FEMA in collaboration with the LUMA team.
- In January and February 2022, LUMA submitted the detailed SOW (including 406HM & EHP requirements) for five Distribution Pole Replacement projects (Ponce Group 1, Ponce Group 2, Caguas Group 4, Caguas Group 8, Arecibo Group 2) to COR3 and FEMA followed by ongoing discussions with COR3/FEMA to work through key project details for 406 hazard mitigation eligibility and EHP requirements. These submissions remain under review by FEMA in collaboration with the LUMA team.
- In March 2022, Submitted the detailed SOW (including 406HM & EHP requirements) for two substation projects (Vieques and Culebra) to COR3 and FEMA. These submissions remain under review by FEMA in collaboration with the LUMA team.
- In March 2022, LUMA submitted the detailed SOW (including 406HM & EHP requirements) for one Transmission Pole Replacement Project (Mora 50500) to COR3 and FEMA. This submission remains under review by FEMA in collaboration with the LUMA team.
- LUMA commenced a formal RFP process for environmental and archaeological specialists to support with detailed EHP studies and prepare the appropriate project mitigations to comply with federal and local environmental policies and regulations. LUMA is currently anticipating award before the end of Fiscal Year 2022.
- To increase the engineering capacity to support the federally funded workload, LUMA issued an A&E RFP seeking additional A&E resources. During Q3, LUMA completed evaluations of the A&E and sought FOMB approvals, with award anticipated before the end of Fiscal Year 2022. In order to expedite work upon award, LUMA's engineering team continued to prepare several task orders during the quarter to be provided to A&E firms once contracted. Similar work was undertaken for distribution construction services, and streetlight construction services in anticipation of construction activities before the end of Fiscal Year 2022.

LUMA Quarterly Report

- Undertook individual meetings with each municipality to provide insight into the progress of the federal funding work to date. During the reporting period, LUMA visited 34 municipalities and have since concluded a total of 77 of 78 meetings.
- LUMA continued to work on potential opportunities for additional funding afforded by the CDBG-DR Program and other FEMA Hazard Mitigation category- 404. In September 2021, LUMA proposed four key projects for the Puerto Rico Department of Housing's (PRDOH) consideration which represents ~\$900 million. LUMA has remained involved in the ensuing review process and these projects were included in the PRDOH's draft Disaster Recovery Action Plan for public consultations. Of the four projects, three projects were included in PRDOH's submission to HUD in January 2022 and LUMA awaits the final recommendation before we can proceed with developing a SOW for PREB review and approval and a subsequent submission to PRDOH and HUD for final approval.
- In March 2022, LUMA proposed three key projects for COR3's consideration which represents ~\$830M. LUMA is working with COR3 to develop the detailed scope of work for submission to PREB for approval prior to submission to FEMA.

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

1. 135 Projects/Programs initial SOWs³ representing an estimated \$8.2 billion in reconstruction work that are being advanced within LUMA.
2. PREB has approved all the 135 Projects/Programs initial SOWs including approving 3 Projects/Programs initial SOWs during the quarter representing \$0.4 billion in reconstruction activities.
3. Upon receiving PREB approval, LUMA seeks the review and establishment of FAAS Project numbers from FEMA for each Project submitted by LUMA⁴.

At the end of Q3, LUMA had sought a total of 181 FEMA FAAS Project numbers representing \$4.6 billion in reconstruction activities. Of these, LUMA received 178 FEMA FAAS Project numbers⁵.

4. Upon receiving the FEMA FAAS number, the work enters the preliminary engineering development phase. Of the 181 projects noted above, 88 projects representing ~\$1.4 billion were advanced in the quarter and are at various stages of preliminary engineering development. The remaining projects will be awarded to A&E firms upon the conclusion of the A&E RFP noted earlier.
5. Of the 88 projects noted above, LUMA submitted the 14 detailed SOWs to COR3/FEMA for approval.

³ Note that the Programs initial SOWs presented are being divided into multiple Projects. An example is the Streetlight Program initial SOWs presented to PREB was for the entirety of Puerto Rico; however, this Program will be divided into 78 Projects representing each Municipality. This approach was taken to simplify the initiation of the work with PREB; and to expedite the approval and execution of the work with FEMA

⁴ As noted above, the submissions to FEMA at this stage are by Project only. (i.e., Programs approved by PREB are subdivided into smaller Projects to ensure the expedient approval of work from FEMA

⁵ Note that LUMA will be seeking additional FEMA FAAS Project numbers as it further divides and defines Programs into individual Projects.

LUMA Quarterly Report

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 March 31st, 2022

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

Project Status	Number of Projects	Estimated Amount
Projects/Programs Pending PREB Approval	0	\$0.0
Projects submitted to FEMA and awaiting FEMA FAAS Project number	3	\$0.4
Projects yet to be defined/developed from approved Programs ⁽¹⁾	n.a. ⁽¹⁾	\$3.1
Projects with FEMA FAAS Project number and in the preliminary engineering phase (i.e., pre-detailed SOW submission) – Unassigned	90	\$3.2
Projects with FEMA FAAS Project number and in the preliminary engineering phase (i.e., pre-detailed SOW submission) – Assigned	74	\$1.3
Submission of detailed SOW to FEMA enabling detailed engineering and construction	14	\$0.1
Total	181	\$8.2

⁽¹⁾ A Total of 12 initial SOWs approved by PREB are deemed as Programs that will be divided into multiple Projects over time (as noted in the main text). The Programs include Streetlights, Substation Minor Repairs, Distribution Poles Replacements, Two Way Land Mobile Radio Network, Telecom Infrastructure, Microwave PTP, Physical Security, SCADA Remote Access and RTU Replacements, Fiber Optic Replacement, Transmission 38kV Pole Replacement, Transmission 115kV Pole Replacement, and Transmission 230kV Pole Replacement.

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

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

Funding Source	Federal Funds Applied for to Date	Federal Funds Applied for this Quarter	Federal Funds Received to date
Public Assistance 428	\$2.695	\$0.495	-
Hazard Mitigation 406	-	-	-
Total	\$2.695	\$0.495	-

LUMA Quarterly Report

5.0 Shared Services

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

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

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

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

The costs for the Shared Services activities are not included within LUMA's quarterly report and are considered part of Generation Pass-Through Expenditures incurred by PREPA. The budgeted costs were reviewed in the FY 2022 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 Quarterly Report

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

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

	Approved FY 2022 Budget	Revised FY 2022 Budget	Revised Q3 Budget	Q3 Actuals	Variance (\$)	Variance (%)
Labor	12.5	4.8	1.3	1.8	(0.5)	
Property & Casualty Insurance	40.5	41.5	10.3	13.3	(3.0)	
Security	10.0	-	-	-	-	
IT Service Agreements	7.5	7.6	1.9	-	1.9	
Utilities & Rents	3.6	-	-	0.0	(0.0)	
Other	4.0	0.8	0.2	0.1	0.1	
Subtotal	\$78.0	\$54.7	\$13.7	\$15.2	(1.5)	(11%)
2% Reserve for Excess Expenditures	1.6	1.1	0.3	-		
Shared Services Total	\$79.6	\$55.8	\$14.0	\$15.2	(1.6)	(11%)

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.

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

During Q3 LUMA continued developing and performing the Shared Services activities under the SSA. In addition to performing the specific services LUMA's work included the following noteworthy milestones:

- In Q3 LUMA made a series of one-time cost adjustment entries to fully record the actual cost of predominantly labor costs that were under-recorded in Q1 and Q2 related to Finance and Operations activities. These are related to actual costs incurred in these prior periods and are consistent with the Shared Services Agreement. Although total labor costs were slightly over budget for Q3 when these costs were included the total labor costs remain under budget YTD.
- Q3 actual period costs for IT Services agreements were substantially zero during the period as the result of over-accrual of these costs in Q1 and Q2 as new and revised service agreements were fully implemented in the post-commencement era. LUMA expects that Q4 cost accruals will approach a steady state level as their full implementation continues and the total overall cost for the year will be below the original budget.
- In Q3, LUMA continued a weekly management meeting with PREPA Generation to identify and communicate Shared Services needs or issues with PREPA and PREPA Generation teams. The new PREPA Generation leadership was integrated into the process as LUMA addressed

LUMA Quarterly Report

emergent PREPA Generation concerns or needs (i.e., discuss new requests / topics that are beyond the current scope of the SSA but nevertheless requested by PREPA or points of mutual interest or concern).

- In Q3, LUMA began initiating the design and development of an automated service request process under *ServiceNow* to streamline shared services requests submitted by PREPA. The initial focus of this *ServiceNow* development work has been on automating IT and Operations service requests where basic automated processes have already been developed (PowerApps and e-forms for IT and Operations respectively.) In Q3 LUMA also began to establish a standardized intake process and email to coordinate Finance-related Shared Services requests.
- LUMA further developed the single-point-of-responsibility management role initially established in Q1 for coordinating all operational activities associated with Generation Shared Services performed by LUMA for PREPA across all of Puerto Rico. This role is intended to streamline Operations-related communication between PREPA and LUMA, ensure technical personnel availability, and coordinate Shared Services field work with PREPA related to planned and unplanned power plant outage events (especially when requests by PREPA need to be addressed urgently).
- In late Q3 LUMA established a single-point-of-responsibility management role for Finance-related Shared Services (similar to the Operations role noted above). LUMA expects this new role, combined with the automated intake process, will improve coordination of Finance-related requests and emergent needs.
- LUMA IT OT, in response to PREPA IT requests, is coordinating with a PREPA-led work prioritization process to support the planning and execution of non-routine and not previously identified PREPA IT initiatives based on PREPA's expressed needs and interests.
- Previous quarterly reports described LUMA and PREPA monthly executive-level management meetings initiated in Q1 with the PREPA Deputy Executive Directors and LUMA leaders to identify and address enterprise-level Shared Service needs, issues, and concerns. PREPA ceased participation in these meetings in Q3 after PREPA executive changes and vacancies in late 2021.
- LUMA initiated a PREPA Transformation Committee (including PREPA, LUMA, and P3A) that holds weekly executive-level management meetings. Oversight of Shared Services is included in the scope of this committee in order to identify and address enterprise-level Shared Service needs, issues, and long-term planning and to achieve the objectives of the prior LUMA-PREPA Deputy Executive Directors meetings (described above).