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

IN RE: REVIEW OF LUMA'S INITIAL BUDGETS

CASE NO. NEPR-MI-2021-0004

SUBJECT: Submission of LUMA's Annual Report For Fiscal Year 2023 and Report on Efficiencies

MOTION SUBMITTING LUMA'S ANNUAL REPORT FOR FISCAL YEAR 2023 AND REPORT ON EFFICIENCIES

TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

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

- 1. On May 31, 2021, this honorable Puerto Rico Energy Bureau of the Public Service Regulatory Board ("Energy Bureau") issued and published a Resolution and Order approving LUMA's Initial Budgets ("May 31st Resolution and Order").
- 2. In the May 31st Resolution and Order, the Energy Bureau listed certain "requirements for LUMA to fulfill during the Interim Period and going forward" including, among others, annual explanations of the differences between accounts expenses and approved budgets and efficiencies and reporting on federal funding activity. *See* May 31st Resolution and Order at page 36, paragraphs 1 through 4; *see also* Resolution and Order of July 16, 2021 at page 6 (modifying the federal funding reporting requirements stated in the May 31st Resolution and Order) ("July 16th Order").

- 3. On February 27, 2023, this Energy Bureau issued a Resolution and Order whereby it approved the Fiscal Year 2023 Consolidated Budget certified by the Financial Oversight and Management Board for Puerto Rico¹ ("February 27th Order"). In the February 27th Order, this Energy Bureau required that LUMA file an annual report on efficiencies.²
- 4. Furthermore, Annex I, Section VI(B), paragraph 4, of the Puerto Rico Transmission and Distribution System Operation and Maintenance Agreement ("T&D OMA") requires that LUMA submit interim and unaudited financial statements within one hundred and twenty days after the end of each fiscal year.
- 5. In compliance with the May 31st Resolution and Order as amended by the July 16th Resolution and Order and also in compliance with the February 27th Order, LUMA submitted four quarterly reports for Fiscal Year 2023 ("FY2023") on the following dates: November 30, 2022 ("Q1 Report"); February 14, 2023 ("Q2 Report"), May 22, 2023 ("Q3 Report"), and August 14, 2023 ("Q4 Report with preliminary results") (jointly, "the Quarterly Reports"). The Quarterly Reports cover the information regarding the T&D System Initial Budget spending amounts. LUMA also submitted the Quarterly Reports in the docket of Case No. NEPR-MI-2020-0019, *In Re: Review of the Puerto Rico Electric Power Authority's System Remediation Plan*.

¹ The Fiscal Year 2023 Consolidated Budgets were certified by the Oversight Board pursuant to Section 202(e) of the Puerto Rico Oversight, Management and Economic Stability Act ("PROMESA").

² On June 25, 2023, this Energy Bureau issued a Resolution and Order approving LUMA's Annual Budgets for Fiscal Year 2024 (the "June 25th Order"). Regarding annual reporting for FY2024, Attachment I of the June 25th Order provides that LUMA shall maintain detailed accounting of annual expenses for each Fiscal Year and report annually on the use of funds within the budget and explain any differences between accounts expenses and approved budgets. *See June 25th Order*, Attachment I, p. 45. It also requires an annual report on efficiencies. *Id.* For FY2024, the June 25th Order set the time to file the annual report 60 days after the end of the fiscal year. On July 10, 2023, LUMA requested reconsideration of said ruling and requested that the time to file the annual report be maintained at 120 days after the end of each fiscal year. On September 22, 2023, this Energy Bureau ruled that "[r]ather than determine the time within which LUMA must file its year-end report as requested in its July 10 Motion for Partial Reconsideration, the Energy Bureau will require LUMA to file in the upcoming Rate Review, a full explanation of the specific reasons it asserts that prevent it from filing a year-end report at an earlier time of the 120-day timeframe LUMA is requesting and is in the T&D OMA."

- 6. In accordance with the May 31st Resolution and Order as amended by the July 16th Resolution and Order, the February 27th Order, and the T&D OMA, LUMA prepared and hereby submits a report on financial performance for FY2023, from July 1, 2022 through June 30, 2023 ("FY2023 Annual Report"). *See* Exhibit 1.³ The FY2023 Annual Report includes information on annual spending, showing that LUMA spent within the aggregate Approved Budget and did not request an increase of the Base Rate established by the Energy Bureau's 2017 Rate Order.
- 7. The FY2023 Annual Report includes information on expenses, as well as annual spending data for the Improvement Programs that this Energy Bureau required in the May 31st Resolution and Order regarding LUMA's Initial Budgets. *See* Exhibit 1, Section entitled "FY2023 Improvement Programs."
- 8. Furthermore, the FY2023 Annual Report includes data on electrical utility field workers, including those qualified to work on energized lines, and the costs for Shared Services for FY2023. *See* Exhibit 1, Section, pp. 26 and 48.
- 9. Additionally, the FY2023 Annual Report includes a section with a report on efficiencies. *See* Exhibit 1, Section, pp. 49-51.

WHEREFORE, LUMA respectfully requests that the honorable Bureau **take notice** of the aforementioned for all purposes and **deem** that LUMA complied with those portions of the May 31st Resolution and Order and the February 27th Order that require an annual report on financial performance and spending and a report on efficiencies.

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³ Because October 28, 2023 was a Saturday, the deadline to file the FY2023 Annual Report on Financial Performance extends to today, Monday, October 30, 2023. See Section 1.09 of Energy Bureau Regulation No. 8543, Regulation on Adjudicative, Notice of Noncompliance, Rate Review, and Investigation Proceedings ("In computing any period conceded by this Regulation, or by order of the Commission, the period shall begin accruing the day after the act, event or noncompliance that triggers the period takes place. If a period ends on a Saturday, Sunday, or a legal holiday, said period shall be extended until the next day that is not a Saturday, Sunday or legal holiday.").

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 30th day of October 2023.

I hereby certify that this motion was filed using the electronic filing system of this Energy Bureau. I also certify that a copy of this motion will be notified to the Puerto Rico Electric Power Authority, through its attorneys of record Joannely Marrero, jmarrero@diazvaz.law and Katiuska Bolaños, kbolanos@diazvaz.law, PREPA's General Counsel, Lionel Santa Crispin, Lionel.santa@prepa.pr.gov, and counsels for Genera PR LLC, Jorge Fernandez-Reboredo, jfr@sbgblaw.com and Alejandro López Rodríguez, alopez@sbgblaw.com,.



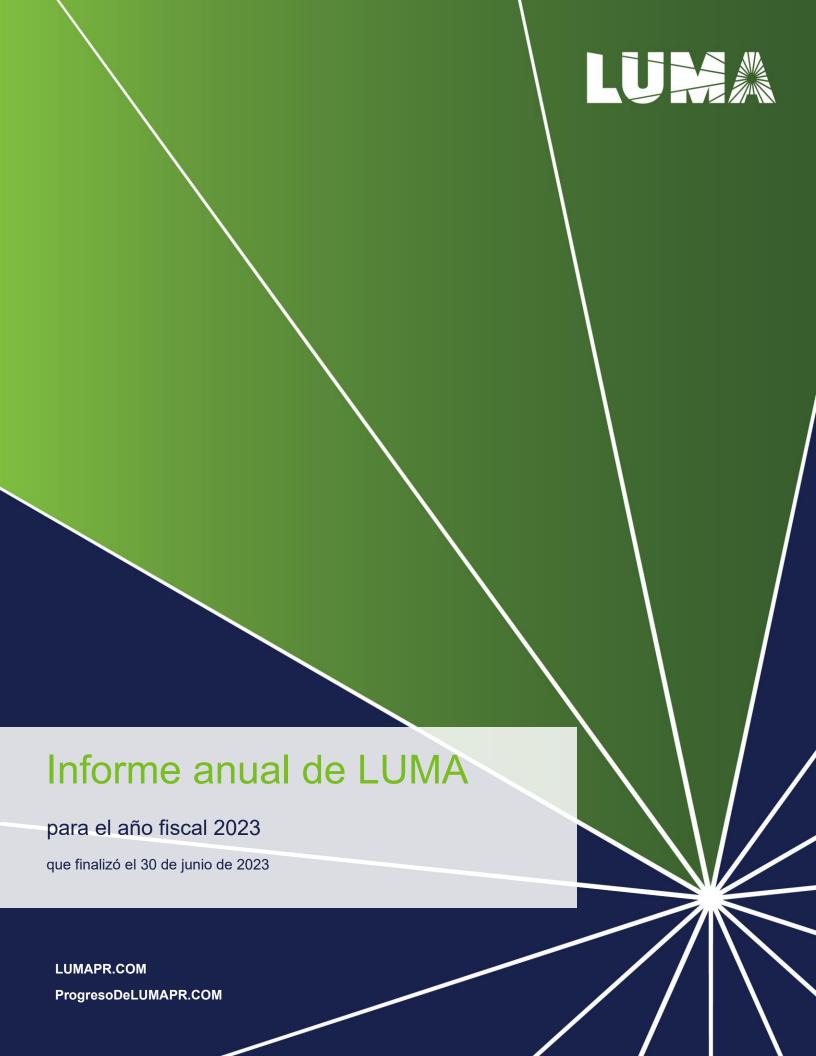
DLA Piper (Puerto Rico) LLC 500 Calle de la Tanca, Suite 401 San Juan, PR 00901-1969 Tel. 787-945-9107 Fax 939-697-6147

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

Exhibit 1

Annual Report

Schedules to be Submitted by email (Excel spreadsheet)



Un futuro energético más brillante para Puerto Rico

Los más de 4,000 hombres y mujeres que trabajan en LUMA mantienen su compromiso de construir el sistema de energía más confiable, más resiliente, más enfocado en el cliente y más limpio que el pueblo de Puerto Rico espera y merece. En toda la isla, LUMA continúa logrando el progreso real, significativo y duradero hacia la construcción de un mejor sistema eléctrico para nuestros clientes, y eso incluye las mejoras en la confiabilidad del servicio, la resiliencia de la red, el servicio al cliente, la energía renovable y más.

Desde que comenzó sus operaciones el 1 de junio de 2021, LUMA sigue enfocada en las prioridades energéticas fundamentales para transformar el sistema eléctrico. Entre otros logros en el AF2023, LUMA reemplazó más de 6,400 postes rotos y averiados, despejó la vegetación de más de 2,400 millas de servidumbres de paso de transmisión y distribución, instaló más de 55,000 focos, y activó la medición neta para aproximadamente 36,300 clientes con paneles de energía solar en el techo, lo que representa más de 224 megavatios de energía limpia añadida a la red. LUMA también realizó esfuerzos sin precedentes para estar preparados ante las emergencias.

LUMA respondió al huracán Fiona en septiembre de 2022, un huracán de categoría 1 que trajo a la isla vientos de 100 mph, más de 30 pulgadas de lluvia e inundaciones generalizadas, y que causó daños extensos y graves a la red eléctrica de Puerto Rico. Trabajando con las comunidades locales, así como con las agencias federales y de Puerto Rico, LUMA restableció el servicio a más del 90% de los clientes en 12 días. Los esfuerzos de respuesta y restauración de LUMA luego del huracán Fiona representaron una tarea histórica nunca vista en Puerto Rico.

Aun cuando LUMA responde a las emergencias, y prioriza la construcción de un mejor futuro energético para Puerto Rico, también nos hemos mantenido firmes en nuestro compromiso de operar de manera eficiente, con prudencia y responsabilidad fiscal como prioridad general. Cuando LUMA se hizo cargo de las operaciones en 2021, por ejemplo, prometimos no solicitar un aumento en la tarifa base durante tres años. Cumplimos esa promesa. En el año fiscal 2023, y a pesar de una serie de desafíos, LUMA operó dentro del presupuesto asignado al tiempo que aumentamos el ritmo y la amplitud de las mejoras al servicio de energía eléctrica.

LUMA opera activos de transmisión y distribución propiedad del gobierno en virtud del Acuerdo de Operación y Mantenimiento del Sistema de Transmisión y Distribución de Puerto Rico (T&D OMA, por sus siglas en inglés) administrado como parte de una asociación público-privada bajo la supervisión de la Autoridad de Alianzas Público-Privadas de Puerto Rico (P3A), y está sujeta a la supervisión reglamentaria del Negociado de Energía de Puerto Rico. En este, el tercer Informe Anual de LUMA, describimos y detallamos el alcance de las acciones, las actividades y los logros para el período de los 12 meses comprendido entre el 1 de julio de 2022 y el 30 de junio de 2023. Este informe se presenta como parte de nuestro compromiso con la transparencia y como requisito del T&D OMA.



Priorizar la seguridad

Nada es más importante para LUMA que la seguridad de sus empleados, sus clientes y las comunidades. En el AF2023, LUMA llevó a cabo la Iniciativa de Seguridad Pública impartiendo educación sobre seguridad eléctrica a más de 17,500 estudiantes de 530 escuelas para contribuir a aumentar la seguridad de las comunidades en todo Puerto Rico.

Reconstruir y crear un sistema resiliente

Estamos reparando activos críticos de la red, e impulsando proyectos de capital financiados con fondos federales. En el AF2023, LUMA recibió 102 asignaciones de fondos obligados de FEMA, lo que representa una inversión estimada de \$493 millones en proyectos que reforzarán la red eléctrica y mejorarán la fiabilidad del servicio para nuestros clientes.



Mejorar la satisfacción de los clientes

Seguimos creando nuevas vías para escuchar, apoyar y responder a los clientes. En el AF2023, LUMA implementó una función de tiempo estimado de restablecimiento del servicio eléctrico para comunicar a los clientes los tiempos de recuperación del servicio luego de una interrupción.

Mantener la excelencia operativa

Seguimos desarrollando a nuestros empleados proveyéndoles capacitación especializada para que cumplan con las normas más exigentes de la industria. En el AF2023, los empleados de LUMA completaron 6,282 sesiones de cursos del Sistema Nacional de Manejo de Incidentes de FEMA como parte de nuestros esfuerzos diarios para prepararnos para responder y apoyar a nuestros clientes en cualquier emergencia.

Transformar la energía para que sea sostenible

Aceleramos la adopción de energía renovable a un ritmo histórico al alcanzar más de 72,000 clientes con panales de energía solar en el techo a finales del AF2023, lo que coloca a Puerto Rico en el quinto lugar de penetración de energía renovable distribuida per cápita entre todos los estados y territorios de EE. UU.





Nuestra misión para Puerto Rico

Recuperar y transformar el sistema eléctrico para proveer un servicio energético centrado en el cliente, confiable, resiliente, seguro y sostenible a precios razonables



LA SEGURIDAD ES PRIORIDAD

Reestructurar las actividades del sistema eléctrico para apoyar una cultura de seguridad fuerte centrada en los empleados y el pueblo puertorriqueño



MEJORAR LA SATISFACCIÓN DEL CLIENTE

Transformar las operaciones para ofrecer una experiencia positiva al cliente y una electricidad confiable a precios razonables



RECONSTRUCCIÓN Y RESILIENCIA DEL SISTEMA

Utilización efectiva de fondos federales para restaurar la red y mejorar la resistencia de las infraestructuras vulnerables



EXCELENCIA OPERACIONAL

Ayudar a los empleados a alcanzar la excelencia operacional a través de nuevos sistemas, nuevos procesos y nuevas capacitaciones



TRANSFORMACIÓN ENERGÉTICA SOSTENIBLE

Modernizar la red eléctrica para lograr un sistema energético sostenible





Progreso para Puerto Rico durante el año fiscal 2023

Construimos un futuro energético mejor para todos los clientes de LUMA.

MEJORAMOS LA FIABILIDAD.

Despejamos más de

2,400 MILLAS DE VEGETACIÓN



EXPANDIMOS LA ENERGÍA RENOVABLE.

Activamos aproximadamente

36,300 INSTALACIONES SOLARES EN TECHOS

que representan sobre **224 MW** de energía limpia

MEJORAMOS LA SEGURIDAD.

Completamos más de

2,110 HORAS DE CAPACITACIÓN DIRECTA

en los Programas de Aprendizaje y de Perfeccionamiento para Operarios de Líneas Eléctricas



AUMENTAMOS LA RESILIENCIA.

Reemplazamos más de

6,400

postes ROTOS Y AVERIADOS



MEJORAMOS EL SERVICIO AL CLIENTE.

Contestamos más de

2,594,140

LLAMADAS con un tiempo de espera inferior a 2 MINUTOS

PROYECTOS CON FONDOS FEDERALES

Recibimos

102 asignaciones de

FONDOS OBLIGADOS de FEMA

que representan una inversión estimada de \$493 millones





La seguridad y la capacitación son prioridad

No hay nada más importante para nosotros que la seguridad de nuestros trabajadores, contratistas y el público en general. Como parte de este compromiso, en el AF2023, nosotros:

- Realizamos más de 1,300 inspecciones de vehículos y equipo para cumplir con el Departamento de Transportación en virtud del Código de Reglamentación Federal y el Instituto Nacional Estadounidense de Estándares
- Realizamos casi 35,000 horas de capacitación sobre el Sistema de Comando de Incidentes (ICS, en inglés) para desarrollar competencias en la activación y el funcionamiento de los Centros de Comando de Emergencias
- Completamos más de 13,000 horas de capacitación presencial y en el puesto de trabajo sobre salud y seguridad impartidas a sobre 3,000 empleados en temas como las normas de OSHA y la conexión equipotencial a tierra
- Capacitamos a más de 19,000 ciudadanos en seguridad eléctrica, entre los que se encuentran estudiantes de escuelas públicas y primeros respondedores, como los bomberos, la policía y el personal de manejo de emergencias
- Avanzamos con la clase actual del programa de perfeccionamiento para operarios de líneas eléctricas, que ya finalizan en noviembre de 2023, y la contratación de 127 nuevos aprendices de operarios de líneas eléctricas





LUMA tiene el compromiso de colaborar e invertir en nuestras comunidades locales. Por tal razón, en el AF2023, nosotros:

- Ampliamos nuestra colaboración con la Cruz Roja Americana mediante el compromiso de aportar \$200,000 en fondos privados para iniciativas de preparación ante emergencias y seguridad eléctrica en el hogar, incluida la financiación de programas educativos y talleres de seguridad para niños
- Realizamos seminarios comunitarios sobre seguridad eléctrica con más de 1,000 empleados municipales en 48 municipios
- Contribuimos con más de diez organizaciones sin fines de lucro en la isla organizando actividades y donaciones a través del Programa Somos Luces, con la colaboración de nuestros empleados
- Continuamos con nuestro programa de prácticas, que ofreció oportunidades a 70 estudiantes de seis universidades de Puerto Rico en los equipos de Ingeniería, Programas de Capital, Regulación y Finanzas de LUMA
- Capacitamos a 45 mujeres jóvenes de escuela secundaria en la fabricación y conducción de vehículos eléctricos, como copatrocinador del desafío *Power Your Future EV* junto con la academia LEAP STEAM+E de San Juan
- Establecimos acuerdos colaborativos con el Departamento de Educación y varias universidades para colaborar en la investigación y compartir recursos con el fin de enriquecer las oportunidades educativas en Puerto Rico











Impulsamos proyectos financiados con fondos federales

LUMA está impulsando proyectos financiados con fondos federales a un ritmo histórico. En el AF2023, nosotros:

- Presentamos a FEMA un proyecto de despeje de vegetación en toda la isla para obtener una obligación de fondos por un valor de \$1.2 millones
- Presentamos a FEMA 143 declaraciones detalladas de trabajo para la distribución, la transmisión y las subestaciones con el fin de mejorar la fiabilidad y la capacidad de recuperación del sistema en beneficio de nuestros clientes
- Recibimos la aprobación de la fase 1 de un proyecto de microrredes solares en Vieques y Culebra
- Presentamos ocho alcances de trabajo detallados a FEMA para reconstruir las subestaciones críticas existentes e instalar otras nuevas, incluyendo Aguirre, Costa Sur, Culebra, Jobos, Monacillos, San Juan SP, Sabana Llana y Vieques





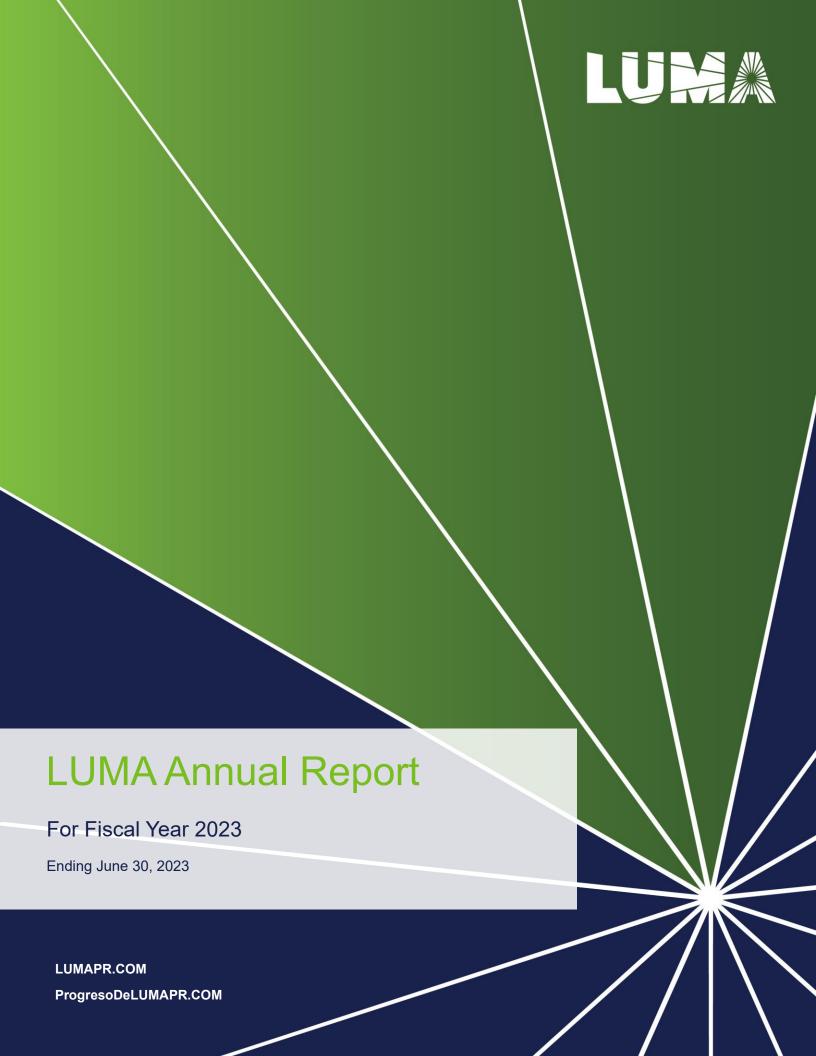


Impulsamos una transformación energética sostenible

Nadie ha hecho más por acelerar la transformación de la energía limpia en Puerto Rico que LUMA. En el AF2023, nosotros:

- Presentamos el Plan de Adopción de Vehículos Eléctricos de Puerto Rico ante el Negociado de Energía de Puerto Rico
- Diseñamos un nuevo programa de Respuesta a la Demanda de Emergencia de Baterías para su lanzamiento en el AF2024
- Presentamos cinco solicitudes al Departamento de Energía (DOE) que representan más de \$700 millones de trabajo, incluida la reconstrucción de líneas de transmisión subterráneas críticas; además, el DOE nos otorgó dos proyectos, incluidos uno para el aprovechamiento de recursos energéticos distribuidos y otro para sensores de bajo costo
- Colaboramos con los Laboratorios Nacionales y el Departamento de Energía en el Estudio PR100 para prever lo que se necesita para producir el 100% de la electricidad de Puerto Rico con energía renovable
- Facilitamos la interconexión de proyectos de energía renovable a gran escala, habiendo completado estudios para 18 proyectos y comenzado a trabajar en estudios de viabilidad para 17 proyectos seleccionados como parte de los procesos de licitación competitiva bajo la supervisión del Negociado de Energía de Puerto Rico





Delivering a Brighter Energy Future for Puerto Rico

The more than 4,000 men and women of LUMA remain committed to building the more reliable, more resilient, more customer-focused, and cleaner energy system the people of Puerto Rico expect and deserve. All across the island, LUMA continues to make real, significant, and lasting progress toward building a better electric system for our customers, including improvements to service reliability, grid resiliency, customer service, renewable energy, and more.

Since assuming operations on June 1, 2021, LUMA continues to focus on the energy priorities critical to transforming the electric system. Among other achievements in FY2023, LUMA replaced over 6,400 broken and damaged poles, cleared vegetation from more than 2,400 miles of transmission and distribution easements, installed over 55,000 streetlights, and activated net metering for approximately 36,300 rooftop solar customers representing over 224 megawatts of clean energy added to the grid. LUMA also undertook unprecedented efforts at preparing, planning, and responding to emergencies.

LUMA responded to Hurricane Fiona in September 2022, a Category 1 hurricane that brought 100 mph winds, over 30 inches of rain, and widespread flooding to the island, causing extensive and severe damage to Puerto Rico's electric grid. Working with local communities as well as Puerto Rico and federal agencies, LUMA restored service to over 90% of customers within 12 days. LUMA's Fiona response and restoration efforts represented a historic undertaking that had never been seen before in Puerto Rico.

Even as LUMA responds to emergencies and prioritizes building a better energy future for Puerto Rico, we have also remained steadfast in our commitment to operating efficiently, with fiscal prudence and responsibility as an overarching priority. When LUMA took over operations in 2021, for example, we promised not to request an increase in the base rate for three years – and we kept that promise. In FY2023, and despite an array of challenges, LUMA operated within budget while increasing the pace and breadth of improvement to electric utility service.

LUMA operates government-owned transmission and distribution assets under the Puerto Rico Transmission and Distribution System Operation and Maintenance Agreement (T&D OMA) administered as part of a public-private partnership overseen by the Puerto Rico Public-Private Partnerships Authority (P3A) and is subject to regulatory oversight by the Puerto Rico Energy Bureau (PREB). In LUMA's third and latest Annual Report, we further outline and detail the scope of actions, activities, and accomplishments for the 12-month period from July 1, 2022, to June 30, 2023. This report is submitted as a part of our commitment to transparency, and as a requirement of the T&D OMA.



Prioritizing Safety

There is nothing more important to LUMA than the safety of our coworkers, customers, and communities. In FY2023, LUMA conducted the Public Safety Initiative, providing electrical safety education to over 17,500 students across 530 schools, helping to increase community safety throughout Puerto Rico.



We are repairing critical grid assets and advancing federally funded capital projects. In FY2023, LUMA received 102 funding obligations from FEMA representing an estimated \$493 million of investment for projects that will strengthen the electric grid and improve service reliability for our customers.



Improving Customer Satisfaction

We continue to create new paths to listen to, support and respond to customers. In FY2023, LUMA implemented an Estimated Time of Restoration feature to communicate with customers on when they can expect service to be restored after an interruption.

Operational Excellence

We continue to develop the skills of our workforce to meet the highest industry standards through specialized training. During FY2023, LUMA employees completed 6,282 course sessions from FEMA's National Incident Management System as part of our daily efforts to prepare, respond and support our customers in any emergency.

Sustainable Energy Transformation

We accelerated renewable energy adoption at a historic pace by reaching over 72,000 customers with rooftop solar at the end of FY2023, making Puerto Rico 5th among all US states and territories in distributed renewable energy by per capita penetration.





Our Mission for Puerto Rico

To recover and transform the utility to deliver customercentric, reliable, resilient, safe, and sustainable electricity at reasonable prices



PRIORITIZE SAFETY

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



IMPROVE CUSTOMER SATISFACTION

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



SYSTEM REBUILD & RESILIENCY

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



OPERATIONAL EXCELLENCE

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



SUSTAINABLE ENERGY TRANSFORMATION

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



Key Facts for FY2023: Progress for Puerto Rico

Building a Better Energy Future for All LUMA Customers

ENHANCING RELIABILITY

Cleared over

2,400 LINE MILES of vegetation



EXPANDING RENEWABLES

Activated approximately

36,300 ROOFTOP SOLAR INSTALLATIONS representing over 224 MW of



IMPROVING SAFETY

Completed more than

2,110 DIRECT
TRAINING HOURS in the
Utility Lineworker Apprenticeship
and Upskilling Programs



INCREASING RESILIENCY

Replaced more than

6,400

clean energy

BROKEN AND DAMAGED utility poles



IMPROVING CUSTOMER SERVICE

Answered over

2,594,140 CALLS

with an average wait time of less than 2 MINUTES



FEDERAL FUNDED PROJECTS

Received

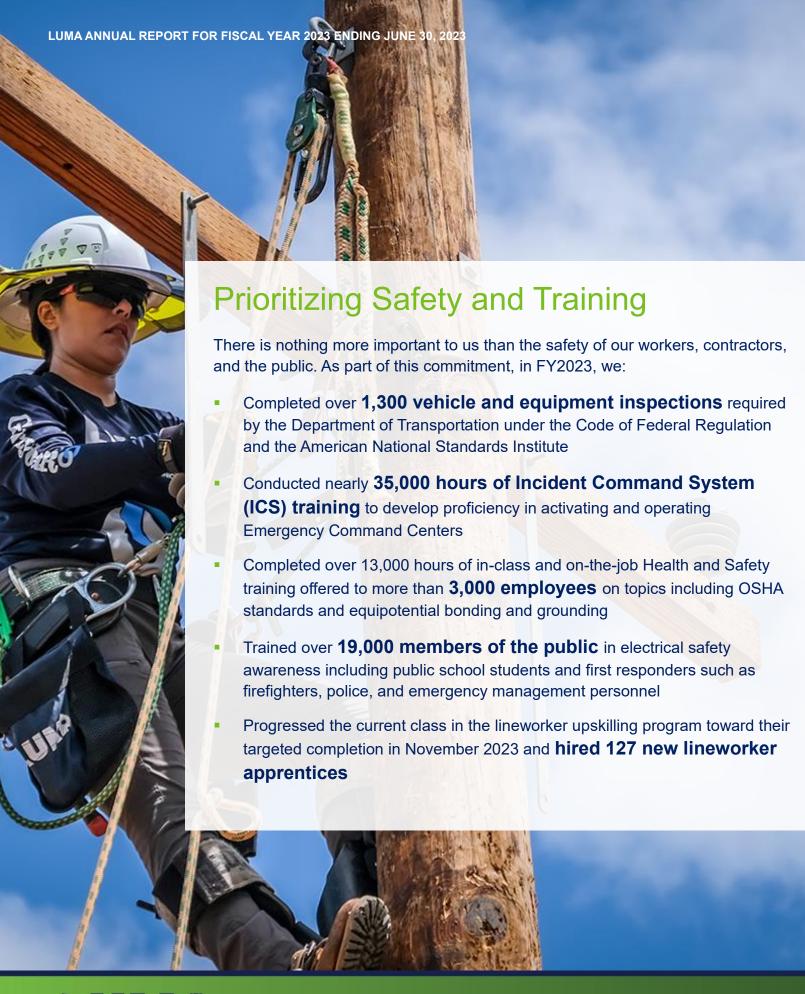
102 FEMA FUNDING

OBLIGATIONS representing an estimated \$493 million investment











Empowering Our Communities

LUMA is committed to partnering and investing in our local communities. As part of this commitment, in FY2023, we:

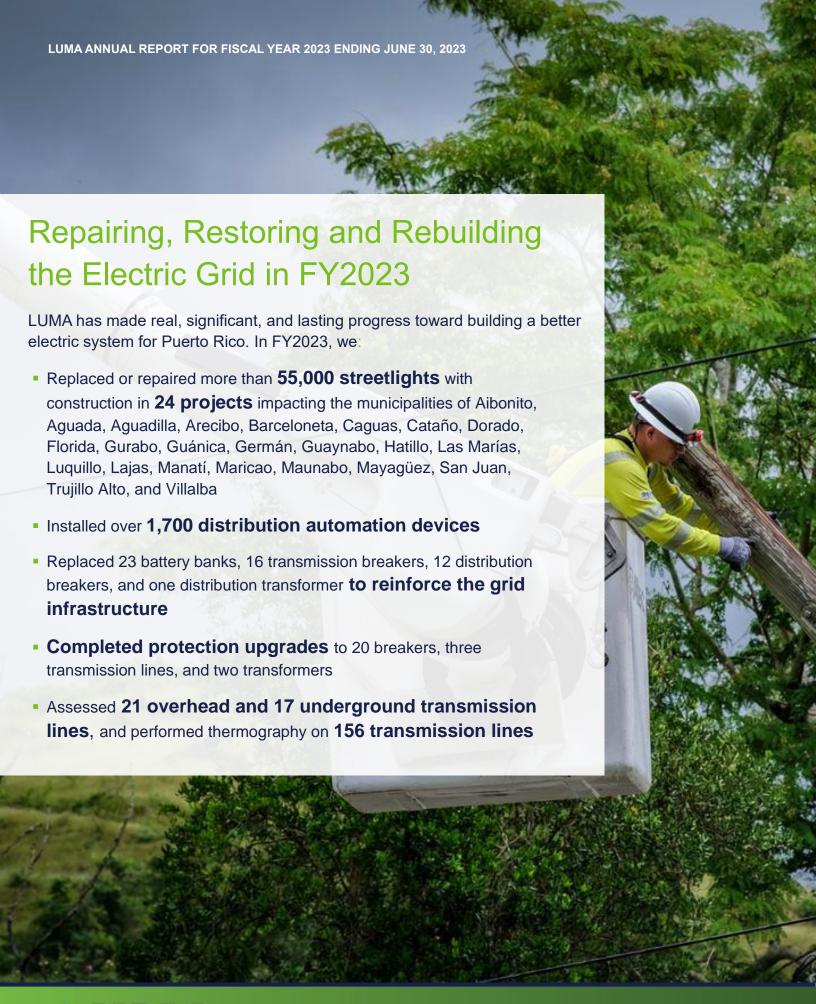
- Extended our partnership with the American Red Cross, pledging \$200,000 in private funds for emergency preparedness and home electrical safety initiatives, including funding for educational programs and safety workshops for children
- Conducted community electrical safety seminars with over 1,000 municipal employees in 48 municipalities
- Contributed to more than ten non-profit organizations on the island by organizing activities and donations through the Somos Luces Program, with the collaboration of our employees
- Continued our internship program, providing internship opportunities in LUMA's Engineering, Capital programs, Regulatory and Finance teams to 70 students from six universities in Puerto Rico
- Trained 45 young women in high school grades to build and race electric vehicles (EVs), as co-sponsors of the Power Your Future EV challenge together with LEAP STEAM+E Academy of San Juan
- Launched partnerships with the Department of Education and several universities to collaborate on research and share resources toward enriching educational opportunities in Puerto Rico















No one has done more to accelerate the clean energy transformation in Puerto Rico than LUMA. In FY2023, we:

- Filed Puerto Rico's Electric Vehicle Adoption Plan with the Puerto Rico Energy Bureau
- Designed a new Battery Emergency Demand Response program for launch in FY2024
- Submitted five Department of Energy (DOE) applications
 representing more than \$700 million of work, including rebuilding
 critical underground transmission lines, and were awarded two projects from
 DOE, including leveraging distributed energy resources and low-cost sensors
- Collaborated with National Labs and the DOE on a PR100 study to envision what is needed to power 100% of Puerto Rico's electricity with renewable generation
- Facilitated the interconnection of large-scale renewable projects, having completed studies for 18 projects and started work on feasibility studies for 17 projects selected as part of competitive bidding processes overseen by Puerto Rico Energy Bureau



FY2023 Financial Performance

As of June 30, 2023, **LUMA's spending was within budget at the end of Fiscal Year 2023 (FY2023)**, spending 99% of its annual operational and non-federally funded capital budget.

Summary of FY2023 Spending (\$ millions)

	FY2023 Budget ¹ FY2023 Actuals		Variance (\$)		Variance (%)	
Transmission & Distribution						
Operating Expenditures ²	\$	552.9	\$ 540.2	\$	12.7	
Non-Federally Funded Capital Expenditures ²	\$	77.2	\$ 81.0	\$	(3.8)	
Subtotal ²	\$	630.1	\$ 621.2	\$	8.9	1%
Federally Funded Capital Expenditures	\$	580.7	\$ 401.6	\$	179.1	31%

¹ FY2023 Budget figures above include a 2% reserve for excess expenditures and interim costs and expenses.

Consumption and Base Revenue

The following table outlines the total consumption and base revenues forecasted amounts compared to quarter and year-to-date actuals:

	FY2023 orecast	FY2023 Actuals	٧	ariance
Total Consumption (GWh)	16,511	15,545		(966)
Base Revenue (\$ millions) ¹	\$ 1,170	\$ 1,024	\$	(146)

¹ Base revenue does not include revenue for fuel adjustment, purchased power, Contribution in Lieu of Taxes, and subsidies.



² Figures may not add due to rounding.

Transmission & Distribution Operating Expenditures (\$ millions)

	FY2023	Budget ¹	FY2023 Actua	ls¹	Variance (\$)	Variance (%)
Labor						
Salaries, Wages and Benefits		246.6	24	6.3	0.3	
Total Labor	\$	246.6	\$ 24	6.3	\$ 0.3	0%
Non-Labor						
Materials & Supplies		36.7	3	2.9	3.8	
Transportation, Per Diem, and Mileage		28.3	2	4.0	4.3	
Property & Casualty Insurance		21.7	1	6.4	5.3	
Security		9.7		8.5	1.2	
IT Service Agreements		25.1	2	1.9	3.2	
Utilities & Rents		10.0	1	4.5	(4.5)	
Legal Services		7.9	1	0.5	(2.6)	
Communications Expenses		1.4		0.1	1.3	
Professional & Technical Outsourced Services		84.0	g	3.7	(9.7)	
Vegetation Management		52.5	6	2.7	(10.2)	
Regulation and Environmental Inspection		0.5		0.5	-	
Other Miscellaneous Expenses		17.7		8.2	9.5	
Other Expenses		-		-	-	
Total Non-Labor / Other Operating Expense	\$	295.5	\$ 29	3.9	\$ 1.6	1%
Subtotal	\$	542.1	\$ 54	0.2	\$ 1.9	0%
2% Reserve for Excess Expenditures		10.8		-	10.8	
Total Operating Expenditures	\$	552.9	\$ 54	0.2	\$ 12.7	2%

¹ Figures may not add due to rounding.



Operating Expenditures by Department

Customer Experience Operational Expenditures (\$ millions)

LUMA's Customer Experience Department is core to LUMA's mission to deliver customer-centric, reliable, resilient, safe, and sustainable electricity. Through implementing appropriate communication protocols and standard billing and collection practices, LUMA has served customers with courtesy, efficiency, and created proactive solutions for customers.

	FY2023	B Budget ¹	FY2023 Actuals ¹	Va	ariance (\$)	Variance (%)
Labor						
Salaries, Wages and Benefits		44.8	40.3		4.5	
Total Labor	\$	44.8	\$ 40.3	\$	4.5	10%
Non-Labor						
Materials & Supplies		0.3	0.2		0.1	
Transportation, Per Diem, and Mileage		1.0	0.6		0.4	
Property & Casualty Insurance		-	-		-	
Security		-	-		-	
IT Service Agreements		0.9	-		0.9	
Utilities & Rents		0.1	0.8		(0.7)	
Legal Services		-	-		-	
Communications Expenses		0.2	-		0.2	
Professional & Technical Outsourced Services		33.5	35.4		(1.9)	
Vegetation Management		-	-		-	
Regulation and Environmental Inspection		-	-		-	
Other Miscellaneous Expenses		0.2	0.1		0.1	
Other Expenses		-	-		-	
Total Non-Labor / Other Operating Expense	\$	36.2	\$ 37.1	\$	(0.9)	(2%)
Total Operating Expense	\$	81.0	\$ 77.4	\$	3.6	4%

¹ Figures may not add due to rounding.

Key activities accomplished during FY2023:

- Answered more than 2,594,140 calls with an average speed of under a minute and forty-one seconds and reduced call volumes in the last five months of the fiscal year by 20%
- Served 1,986,900 customers in our service centers with an average waiting time of eight minutes and thirty seconds
- Responded to over 443,513 social media messages from our customers, and achieved over 819,432 customer registrations in Mi LUMA since its launch
- Successfully launched the outbound collection call campaign to engage customers with outstanding account balances and provided information on payment options, resulting in a 35% improvement in collection calls "no answer" rate
- Achieved over 13,785 new payment agreements, collected nearly \$600 million in past due accounts receivable, and reduced general customer day sales outstanding (DSO) by 30 days and Government DSO by 34 days
- Billed over \$4 billion in revenue, and processed over \$3.5 billion in payments, including more than \$75 million in energy assistance funds for customers
- Completed a full request for proposal for payment processing to increase customer options, lessen costs, and reduce the customer deposit refund time by 50%
- Implemented the utility intelligence platform to significantly improve daily, weekly, and monthly reporting and data access
- Revised the Contribution in Lieu of Taxes accounts with all municipalities for the first time since before Hurricane
 Maria



Provided more than 30,000 hours of training to Customer Experience advisors and analysts on the LUMA Express
platform, which supports an improvement in the customer experience by providing a central and consistent platform
for case management, referrals, and follow-ups

The primary driver for the \$3.6 million favorable year-to-date variance for Customer Experience operating expenditures was labor savings due to higher call center productivity and slowed hiring.

Operations Operating Expenditures (\$ in millions)

The Operations Department oversees and manages the day-to-day work on the transmission and distribution (T&D) infrastructure and is 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 taking actions to address maintenance and repairs to improve reliability and resiliency.

	FY202	3 Budget ¹	FY2023 Actua	als¹	Variance (\$)	Variance (%)
Labor						
Salaries, Wages and Benefits		119.5	1:	36.3	(16.8)	
Total Labor	\$	119.5	\$ 1	36.3	\$ (16.8)	(14%)
Non-Labor						
Materials & Supplies		32.8	:	28.7	4.1	
Transportation, Per Diem, and Mileage		22.4		16.2	6.2	
Property & Casualty Insurance		-		-	-	
Security		-		-	-	
IT Service Agreements		0.8		0.4	0.4	
Utilities & Rents		3.0		5.1	(2.1)	
Legal Services		-		-	-	
Communications Expenses		0.1		0.1	-	
Professional & Technical Outsourced Services		14.2		8.3	5.9	
Vegetation Management		52.5	1	62.7	(10.2)	
Regulation and Environmental Inspection		-		-	-	
Other Miscellaneous Expenses		13.4		1.0	12.4	
Other Expenses		-		-	-	
Total Non-Labor / Other Operating Expense	\$	139.2	\$ 1	22.5	\$ 16.7	12%
Total Operating Expense	\$	258.7	\$ 2	58.8	\$ (0.1)	(0%)

¹ Figures may not add due to rounding.

Key activities accomplished during FY2023:

- Progressed lineworker upskilling program towards the targeted completion in November 2023 and hired 127 new lineworker apprentices
- Completed fourth round of vegetation control at substations allowing the program to move to a four-year cycle toward planned maintenance and away from reactive work
- Supported the Puerto Rico Grid Stabilization Plan with Federal Emergency Management Agency (FEMA) obligated funds to install generators at the Palo Seco Generation Facility, enabling the addition of 150 MW of generation assets. Additionally, performed work at the San Juan generation facility, which involved the initial testing of a 300 MVA transformer for relocation to a new pad and the testing and commissioning of the new supervisory control and data acquisition and control system to incorporate an additional 200 MW of generation
- Performed significant work to advance the reliability of substation equipment performance through testing and diagnostic assessment after Hurricane Fiona, which included more than 440 circuit breakers, more than 90 power transformers, nearly 180 functional testing of relay-to-breaker protection/control systems, infrared thermography of substation switchracks, and direct current battery bank testing at all substation sites



- Replaced or repaired over 100 circuit breakers and completed 45 protection upgrades
- Restored six out of service load tap changers
- Replaced over 20 direct current battery banks and over 85 protection relays
- Repaired approximately 240 hot spots in substation switchracks
- Replaced seventy 38 kV and five 115 kV pole structures; also, 234 overhead disconnect switches were completely repaired and maintained
- Provided 2,144 training hours on fleet maintenance to 35 mechanics and 130 training hours for the certification on hazardous materials to 23 employees
- Completed 822 continuing education hours on hydraulic and pneumatic, anti-lock brake and direct injection systems, traction and control, automotive collision, and damage assessment to 24 mechanics
- Provided 57 training hours on Health, Safety, and Environment to 19 mechanics
- Trained and prepared 14 mechanics for the Department of Transportation's certification

The primary drivers for the \$0.1 million unfavorable year-to-date variance for Operations expenditures were mainly due to higher than budgeted activities related to salaries, wages and benefits expenses by \$16.8 million, aimed at reducing future outage duration and frequency, improving system reliability in preparation for the 2023 hurricane season, and reducing the backlog of customer-driven service orders and net meter installations to accommodate customer renewable energy interconnections. This unfavorable variance was offset by lower spending on non-labor expenditures.

Vegetation management expenses were higher than budgeted by \$10.2 million, mainly due to conducting additional clearing work in preparation for the upcoming storm season, which includes 192 miles of 230 kV transmission lines. This work is vital to improving the system's overall reliability and bolstering the reliability of the 230 kV system, essential to the grid's stability across Puerto Rico.



LUMA Electrical Utility Field Workers

LUMA provides a quarterly status of electrical utility field workers, including those qualified to work on energized lines.

Electrical Utility Field Worker Type	Electrical Utility Field Workers as of June 30, 2023 ³
Utility Electrician	110
Utility Lineworker 1	1
Utility Lineworker 2 ²	73
Apprentice URD Technician	6
URD Technician	6
Apprentice Substation Technician ²	33
Substation Technician ¹	55
Senior Substation Technician ¹	9
Meter Technicians	26
Low-Voltage Technician	109
Foreman ¹	83
Foreman - Low Voltage	40
Apprentice Lineworker, 1st Period	34
Apprentice Lineworker, 2nd Period	31
Apprentice Lineworker, 3rd Period	24
Apprentice Lineworker, 4th Period ²	18
Apprentice Lineworker, 5th Period ²	25
Journeyman Lineworker ¹	360
Total	1043

¹ Electrical utility field workers that can work on energized lines.

LUMA is actively expanding its team of electrical utility field workers to meet the demands of the T&D System and increase the workforce deployed in the field. This effort has enabled LUMA to enhance system reliability for the upcoming 2024 hurricane season by reducing future outage duration and frequency. As of June 30, 2023, LUMA employed 1,043 full-time equivalent electrical utility field workers, surpassing the budgeted figure of 842. This variance is primarily attributed to additional labor focused on emergency repair work due to damage caused by Hurricane Fiona. Throughout FY2023, the deployment of electrical utility field workers contributed to the reduction of future outage duration and frequency, the clearing of customer-driven service orders backlog, and the facilitation of net meter installations for customer renewable energy interconnections. LUMA taps into its existing workforce to continue recruiting qualified workers, resorts to recruiting firms, and advertises job opportunities on various digital platforms and LUMA's website.



² Electrical utility field workers that can work on energized lines with a journeyman lineworker or journeyman substation technician present.

³ The figures include the number of full-time equivalents and do not include groundmen, operators, and laborers that support electrical utility field workers.

Utility Transformation Operating Expenditures (\$ in millions)

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. It supports key initiatives defined in the System Remediation Plan and focuses on the long-range vision articulated in the Integrated Resource Plan. This department also plans and implements capital investment programs, including all federally funded work on the electric grid.

	FY202	3 Budget ¹	FY2023	Actuals ¹	Varian	ce	Variance (%)
Labor							
Salaries, Wages and Benefits		29.1		22.5		6.6	
Total Labor	\$	29.1	\$	22.5	\$	6.6	23%
Non-Labor							
Materials & Supplies		1.1		0.8		0.3	
Transportation, Per Diem, and Mileage		2.5		5.3		(2.8)	
Property & Casualty Insurance		-		-		-	
Security		-		-		-	
IT Service Agreements		0.1		-		0.1	
Utilities & Rents		1.8		2.9		(1.1)	
Legal Services		-		-		-	
Communications Expenses		-		-		-	
Professional & Technical Outsourced Services		5.5		11.7		(6.2)	
Vegetation Management		-		-		-	
Regulation and Environmental Inspection		-		-		-	
Other Miscellaneous Expenses		1.1		0.6		0.5	
Other Expenses		-		-		-	
Total Non-Labor / Other Operating Expense	\$	12.1	\$	21.3	\$	(9.2)	(76%)
Total Operating Expense	\$	41.2	\$	43.8	\$	(2.6)	(6%)

¹ Figures may not add due to rounding.

Key activities accomplished during FY2023:

- Submitted five Department of Energy applications representing over \$700 million of work, including rebuilding critical
 underground transmission lines, and were awarded two projects from the Department of Energy, including leveraging
 distributed energy resources and low-cost sensors
- Processed more than 1,550 third-party pole attachment requests for telecommunication equipment (for a total of more than 40,000 attachments) to ensure compliance with the codes and standards of the National Electrical Safety Code
- Collaborated with National Labs and the Department of Energy on a PR100 study to envision what is needed to power 100% of Puerto Rico's electricity with renewable generation
- Streamlined the net energy metering (NEM) portal to allow for the increased number of NEM applications and promote greater efficiency in the application process itself, completed development of a new NEM application portal and began final testing prior to full launch in FY2024
- Designed a new Battery Emergency Demand Response Program for launch in FY2024, prepared to improve daily reliability and minimize the impact of low relays by increasing power capacity during peak load conditions
- Onboarded 70 interns from universities across Puerto Rico and provided training sessions and tours of the LUMA facilities to supplement their day-to-day activities
- Completed infrared scanning on 156 transmission lines and 33 hot spots; also performed visual assessment and infrared scanning at all substation sites
- Performed insulator and hardware replacement on 816 structures



- Completed maintenance on 106 transmission breakers and 82 distribution breakers and restored 50 out-of-service feeder breakers
- Performed outage investigation analysis and support for major and intermediate outages, including contingency planning and equipment-sparing

The primary drivers for the \$2.6 million unfavorable year-to-date variance for Utility Transformation operating expenditures were higher than budgeted professional and technical services expenses related to grant planning and benefit articulation, as well as engineering and inspection costs associated with evaluating the potential impacts of third parties attaching their lines and equipment to our poles.

Support Services Operating Expenditures (\$ in millions)

LUMA's Support Service functions enable the delivery of electric service by supporting the entire enterprise. These functions include safety, emergency management, Information Technology and Operations Technology (IT OT), environmental, legal, procurement, regulatory, finance, and other areas that are imperative to LUMA's success in meeting its mission and achieving its key goals.

	FY2023	Budget ¹	FY2023 Actuals ¹	Variance (\$)	Variance (%)
Labor					
Salaries, Wages and Benefits		53.2	47.2	6.0	
Total Labor	\$	53.2	\$ 47.2	\$ 6.0	11%
Non-Labor					
Materials & Supplies		2.5	3.2	(0.7)	
Transportation, Per Diem, and Mileage		2.4	1.9	0.5	
Property & Casualty Insurance		21.7	16.4	5.3	
Security		9.7	8.5	1.2	
IT Service Agreements		23.3	21.5	1.8	
Utilities & Rents		5.1	5.7	(0.6)	
Legal Services		7.9	10.5	(2.6)	
Communications Expenses		1.1	-	1.1	
Professional & Technical Outsourced Services		30.8	38.3	(7.5)	
Vegetation Management		-	-	-	
Regulation and Environmental Inspection		0.5	0.5	-	
Other Miscellaneous Expenses		3.0	6.5	(3.5)	
Other Expenses		-	-	-	
Total Non-Labor / Other Operating Expense	\$	108.0	\$ 113.0	\$ (5.0)	(5%)
Total Operating Expense	\$	161.2	\$ 160.2	\$ 1.0	1%

¹ Figures may not add due to rounding.

Key activities accomplished during FY2023:

- Enhanced the IT system endpoint security, prepared to avoid and deal with ransomware, and strengthened email/cloud security while continuously monitoring and mitigating cyber risks
- Developed the load forecast new model parameters per customer to determine the forecast revenues for the FY2024
 Initial Budget and Puerto Rico Electric Power Authority (PREPA) fiscal plan, which the Puerto Rico Energy Bureau
 (PREB) and Financial Oversight & Management Board for Puerto Rico (FOMB) approved; supported the PREPA
 mediation process
- Implemented Plexos, a resource planning software to facilitate analysis and to support the Integrated Resource Plan team requirement; issued an updated resource adequacy annual report, which was the basis for the request to FEMA for 350 MW of emergency generation



- Submitted the final version of Puerto Rico's Electric Vehicle Adoption Plan and the Revised Electric Vehicle Rate Design Proposal
- Filed a total of 24 initial scopes of work for federal funding before the PREB, representing \$1.7 billion of investment
- Filed and completed the first acquisition for the T&D system for the expansion of the "Cachete" substation in San Juan
- Deployed Recovery Strategy/Resources Plan and submitted \$70 million in requests for reimbursement to recover Capital Programs Federal Funding
- Continued the improvement of financial controls and processes for the quality and timeliness of information provided to stakeholders

The primary drivers for the \$1.0 million favorable year-to-date variance for Support Services operating expenditures include favorable variances of \$6.0 million in salaries, wages, and benefits and \$5.3 million in property and casualty insurance, offset by the unfavorable variance of \$7.5 million in professional and technical outsourced services.

Salaries, wages, and benefits expenses were under budget due to lower-than-expected recruitment and new hires. As a result, the costs for professional and technical outsourced services were higher than budgeted due to the need to contract additional skilled support to complete critical financial functions. Property and casualty insurance expenses were lower than budgeted, mainly due to achieving lower-than-expected premiums for the transmission and distribution grid as a portion of the total insurance program.

The 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.



Presentamos los principales logros de los Programas de Mejoras en el AF2023

- Aceleración de la iniciativa de alumbrado público comunitario para mejorar la iluminación de las comunidades de todo Puerto Rico
- Finalización de las mejoras en la protección del sistema eléctrico para lograr la fiabilidad en todo el sistema, incluida la finalización de 20 mejoras en la protección de disyuntores, tres mejoras en la protección de líneas de transmisión y dos mejoras en la protección de transformadores
- Instalación de dispositivos de automatización para obtener datos de rendimiento del sistema en tiempo real, y aumentar la fiabilidad del sistema, incluida la instalación de 187 TripSavers, 64 reconectadores trifásicos, 75 indicadores de avería, 993 indicadores de avería de distribución y 392 nuevos cortacircuitos fusibles
- Sustitución de infraestructuras rotas y dañadas, incluidas 75 estructuras de transmisión, 23 bancos de baterías, 16 disyuntores de transmisión, 12 disyuntores de distribución y un transformador de distribución
- Finalización de las evaluaciones de las 341 subestaciones, y realización de importantes reparaciones en los equipos dañados y de mantenimiento preventivo para evitar futuras interrupciones del servicio
- Ejecución del contrato para instalar un moderno Sistema de Manejo de Emergencias que permita mejorar la coordinación y optimización de la red eléctrica
- Definición y diseño del nuevo Centro de Control para lograr mayor control resiliente y moderno de los recursos energéticos y de la transmisión
- Recibo de la obligación de financiamiento de FEMA para el programa de Despeje de la Vegetación, que abordará la causa número uno de las interrupciones del servicio
- Inicio de la actualización de los sistemas de atención al cliente y facturación con datos del alumbrado público
- Implantación de un proceso estandarizado para la adquisición de herramientas críticas para las subestaciones, las telecomunicaciones y las áreas de construcción de líneas
- Inicio del proceso de contratación para introducir nuevos sistemas de manejo de permisos operativos y desarrollo de una nueva estructura para todos los archivos que se migrarán al sistema una vez implantado
- Finalización de la evaluación de la infraestructura y los estándares del Manejo de Activos de IT OT
- Inicio del proceso de contratación para la digitalización de los registros de derechos de propiedad de la AEE





Alcanzamos un estado remediado en el

Programa de Capacitación de Operadores

- El programa de capacitación de operadores de LUMA ha alcanzado su estado remediado
- Este programa provee todos los requisitos de adiestramiento y evaluación de competencias para apoyar a los operadores de sistemas nuevos y existentes
- Antes de que LUMA comenzara a operar y de que implantara este programa, la Autoridad de Energía Eléctrica (AEE) no contaba con un programa de capacitación adecuado para la incorporación de operadores
- Como resultado, la AEE no contaba con suficientes operadores adiestrados para operar el sistema de manera adecuada
- Ahora, desde la implantación de este programa, LUMA ha proporcionado un programa de adiestramiento formal que ha capacitado a nuevos operadores, cuyas competencias se han evaluado, y que ya son parte de nuestra fuerza laboral



Alcanzamos un estado remediado en el

Programa de Equipo de Seguridad

- El Programa de Equipo de Seguridad de LUMA alcanzó un estado remediado antes de lo previsto
- Este programa proporciona a los trabajadores acceso a equipo que puede salvarles la vida para reducir el riesgo de lesiones, y crea un ambiente de trabajo más seguro
- Antes de que LUMA comenzara sus operaciones y pusiera en marcha este programa, los empleados no tenían acceso a un equipo de seguridad fiable, como monitores para operarios que trabajan solos o que entran en espacios confinados, pruebas audiométricas y control sobre el terreno, acceso a un desfibrilador externo automático o kits portátiles para el lavado de ojos. Esto produjo datos históricos de incidentes de pérdida auditiva y trabajadores expuestos al ruido en la AEE
- Ahora, con la adquisición de equipo de seguridad, LUMA cumple con las obligaciones del patrono en virtud de la Sección 5 de la Ley de OSHA, ya que proporciona la capacitación y el equipo necesarios para reducir la cantidad y gravedad de las lesiones
- LUMA estableció políticas y procedimientos, desarrolló criterios de inspección y calibración, y desarrolló programas de capacitación que apoyan el uso de todo el equipo de seguridad para llevar a cabo el trabajo con eficiencia y seguridad



Key Improvement Program Achievements in FY2023

- Accelerated the Community Streetlight Initiative to provide improved lighting for communities across Puerto
- Completed electrical system protection upgrades for improved reliability throughout the system including completion of 20 breaker protection upgrades, three transmission line protection upgrades, and two transformer protection upgrades
- Installed automation devices for real-time system performance data and increased system reliability including the installation of 187 TripSavers, 64 three-phase reclosers, 75 fault indicators, 993 distribution fault indicators, and 392 new fuse cutouts
- Replaced broken and damaged infrastructure including 75 transmission structures, 23 battery banks, 16 transmission breakers, 12 distribution breakers, and one distribution transformer
- Completed assessments of all 341 substations, making important repairs to damaged equipment and performing preventative maintenance to avoid future outages
- Executed the contract to install a modern Emergency Management System to allow enhanced coordination and optimization of the electrical grid
- Defined and designed the new Control Center for a more resilient, modern control of energy resources and transmission
- Received funding obligation from FEMA for cornerstone Vegetation Clearance program which will address the number one cause of service outages
- Commenced customer care and billing system updates with streetlight data
- Implemented a standardized process to procure critical tools for substations, telecom, and
 line construction areas
- Started the procurement process to introduce new systems for managing operational permits and developed a new structure for all files that will be migrated to the system once implemented
- Completed the IT OT Asset Management infrastructure assessment and standards
- Started procurement process for the digitalization of PREPA land rights records





Now, since the implementation of this program, LUMA has provided a formal and established training program that has **trained 2 new**

cohorts of operators who have been evaluated for competencies

and are already working in the Control Centers

Remediated State Achieved:

Safety Equipment Program

- LUMA's Safety Equipment program achieved a remediated state ahead of schedule
- This program provides workers access to potential lifesaving equipment to reduce the risk of injuries and creates a safer working environment
- Before LUMA started operations and implemented this program,
 employees did not have access to reliable safety
 equipment such as lone worker/confined space entry monitors,
 increased audiometric testing and monitoring in the field, or access to
 AEDs and portable eyewash kits
- Now, with the acquisition of safety equipment, LUMA complies with OSHA requirements by providing the training and equipment to reduce the amount and severity of injuries
- LUMA established policies and procedures, inspection criteria and training programs to complete work more efficiently and safely



FY2023 Improvement Programs

On June 1, 2021, LUMA assumed operations of Puerto Rico's electric transmission and distribution system, inheriting a fragile electric system that had suffered from years —if not decades— of mismanagement and neglect under the prior operator. Given the state of the grid, the electric system could not be immediately operated in accordance with Prudent Utility Practice and minimum industry standards. LUMA's Improvement Programs¹ were designed to address the significant gaps identified prior to the commencement of operations and bring the utility's operations and assets up to a minimum industry standard. Program spending includes operating expenditures and capital costs within the PREB-approved FY2023 budget and as included in the 2022 Fiscal Plan approved by the Financial Oversight & Management Board for Puerto Rico in June 2022.

Improvement Portfolio Summary (\$ millions)

	Portfolio
Customer Experience	
Distribution	
Transmission	
Substations	
Control Center & Buildings	
Enabling	
Support Services	
Total	
1	

¹ Figures may not add due to roundi	ng.
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FY2023 Budget ¹	FY2023 Actuals ¹	Variance (\$)	Variance (%)
137.9	114.7	23.3	17%
188.3	219.5	(31.2)	(17%)
128.5	69.0	59.5	46%
125.8	58.3	67.5	54%
51.5	8.0	43.5	85%
113.0	122.7	(9.6)	(9%)
97.3	93.6	3.6	4%
\$ 842.3	\$ 685.7	\$ 156.7	19%



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. Within these programs, specific project initial scopes of work for federally funded projects have been submitted for review and approval by the Energy Bureau in docket NEPR-MI-2021-0002. Detailed information on the budget, the System Remediation Plan and the implementation of federally funded capital investments is publicly available on PREB's website for the corresponding dockets.

Capital Expenditures by Funding

Transmission & Distribution Capital Expenditures — Federally Funded (\$ millions)

		Federally Funded Capital								
Improvement Portfolio	FY2023 Budget	FY2023 Actuals	Variance (\$)	Variance (%)						
Customer Experience	107.3	85.4	21.9							
Distribution	151.3	190.7	(39.4)							
Transmission	126.2	66.0	60.2							
Substations	110.6	44.5	66.1							
Control Center & Buildings	45.0	4.3	40.7							
Enabling	20.1	9.7	10.4							
Support Services	8.8	0.9	7.9							
Subtotal	\$ 569.3	\$ 401.6	\$ 167.8	29%						
Other										
2% Reserve for Excess Expenditures	11.4	-	11.4							
Total Capital Expenditures	\$ 580.7	\$ 401.6	\$ 179.2	31%						

Transmission & Distribution Capital Expenditures — Non-Federally Funded (\$ millions)

	Non-Federally Funded Capital								
Improvement Portfolio	FY2023 Budget	FY2023 Actuals	Variance (\$)	Variance (%)					
Customer Experience	9.3	14.5	(5.2)						
Distribution	23.9	27.8	(3.9)						
Transmission	1.9	2.6	(0.7)						
Substations	13.1	12.8	0.3						
Control Center & Buildings	3.7	2.6	1.0						
Enabling	19.1	16.5	2.7						
Support Services	4.7	4.2	0.5						
Subtotal	\$ 75.7	\$ 81.0	\$ (5.2)	(7%)					
Other									
2% Reserve for Excess Expenditures	1.5	-	1.5						
Total Capital Expenditures	\$ 77.2	\$ 81.0	\$ (3.7)	(5%)					

¹ Figures may not add due to rounding; this table includes capital expenditures related to Hurricane Fiona's emergency restoration work.



Customer Experience Improvement Portfolio Summary (\$ millions)

The **Customer Experience Improvement Portfolio** focuses on enhancing the customer experience, including Distribution, Streetlighting, Billing Accuracy and Back Office, and Advanced Metering Infrastructure Implementation programs.

Program		FY2023 Budget ¹		FY2023 Actuals ¹	Variance (\$)	Variance (%)
Distribution Streetlighting	\$	105.0	\$	87.3	\$ 17.6	
Federally Funded		105.0		84.9		
Non-Federally Funded		-		2.5		
OpEx		-		-		
SRP		31.5		26.2		
Billing Accuracy & Back Office	\$	13.1	\$	15.3	\$ (2.2)	
Federally Funded		-		-		
Non-Federally Funded		1.0		1.7		
OpEx		12.2		13.7		
SRP		2.0		2.4		
AMI Implementation Program	\$	-	\$	0.4	\$ (0.4)	
Federally Funded		-		0.4		
Non-Federally Funded		-		0.0		
OpEx		-		-		
SRP		-		-		
Programs <5% of Portfolio Total	\$	19.8	\$	11.5	\$ 8.3	
Federally Funded	·	2.4	,	0.1		
Non-Federally Funded		8.3		10.3		
OpEx		9.1		1.1		
SRP		8.8		0.3		
otal	\$	137.9	\$	114.7	\$ 23.3	17%

¹ Figures may not add due to rounding.

The **Distribution Streetlighting** program upgrades and replaces distribution streetlights. In FY2023, we completed over 225,000 streetlight assessments and replaced or repaired more than 55,000 streetlight luminaires. We also submitted 46 initial scopes of work and 26 detailed scopes of work to the FEMA. Total spend for FY2023 was lower than budget due to delays caused by the impacts of Hurricane Fiona. At this time, there is no expected variance in achieving program milestones.

The **Billing Accuracy and Back Office** program includes updates to print and delivery of bills and back-office systems to improve the accuracy and timeliness of customer invoices. Key FY2023 activities included the beginning of assessments that provided considerable findings regarding necessary changes required in the system to address estimation routines in the billing system, documented program changes for Oracle Customer Care and Billing user roles and functions, which will provide improved separation of duties, clarity in roles and functional separation aligned to organizational responsibilities, deployment of the utility intelligence platform (UIP), which has provided LUMA billing services with critical daily reporting and ability to mitigate exception handling in a prioritized approach in a timely manner, and development of data platform in Power BI that now provides near-daily data for service orders, meter activity data and customer experience information related to meter data. The spend for this program is slightly higher than expected to enable the launch of the utility intelligence platform and carry out project work for Oracle Customer Care and Billing optimization. Although the project implementation is somewhat delayed due to contract updates required for spending, there is no expected variance in achieving program milestones. The team is implementing improvements now that the contract value and scope of work approvals have been completed.

The **Advanced Metering Infrastructure (AMI) Implementation** program establishes a two-way communication system to collect detailed metering information throughout a utility's service territory. It represents a foundational technology to enable enhanced resiliency and reliability. This program comprises smart meters, a digital communications network, a head-end system, and a meter data management system. Key FY2023 activities included submitting the initial scope of work to FEMA. Total spend for FY2023 was higher than budget due to the pursuit of federal funding for implementing Advanced Metering Infrastructure, which was not included in the FY2023 budget.



Distribution Improvement Portfolio Summary (\$ millions)

The **Distribution Improvement Portfolio** focuses on improving the distribution system, including Distribution Pole & Conductor Repair, Distribution Line Rebuild, Distribution Automation, and Distribution Lines Assessment programs.

Program	FY2023 Budget ¹	FY2023 Actuals ¹	Variance (\$)	Variance (%)
Distribution Pole & Conductor Repair	\$ 71.7	\$ 148.2	\$ (76.5)	
Federally Funded	54.0	136.9		
Non-Federally Funded	6.8	11.0		
OpEx	10.9	0.2		
SRP	71.7	148.2		
Distribution Line Rebuild	\$ 59.8	\$ 50.0	\$ 9.8	
Federally Funded	51.3	37.5		
Non-Federally Funded	8.5	11.7		
OpEx	0.0	0.8		
SRP	5.3	2.1		
Distribution Automation	\$ 35.6	\$ 18.3	\$ 17.4	
Federally Funded	26.3	13.3		
Non-Federally Funded	8.4	5.0		
OpEx	1.0	-		
SRP	-	-		
Distribution Lines Assessment	\$ 21.2	\$ 3.0	\$ 18.1	
Federally Funded	19.7	3.0		
Non-Federally Funded	0.2	0.1		
OpEx	1.3	-		
SRP	21.2	3.0		
Fotal	\$ 188.3	\$ 219.5	\$ (31.2)	(17%

¹ Figures may not add due to rounding.

The **Distribution Pole and Conductor Repair** program focuses on minimizing the safety hazard caused by damaged distribution poles and conductors and improving the distribution infrastructure's reliability and resilience. Major repairs and replacement are based on the results of engineering assessments and emergent poles replaced by Operations due to safety concerns. In FY2023, LUMA replaced more than 6,400 broken and damaged distribution poles. Total spend in FY2023 was higher than budget due to emergency repair work associated with Hurricane Fiona, including distribution pole assessment, pole and conductor replacements, and other repairs, which were not included in the FY2023 budget. At this time, there is no expected variance in achieving program milestones.

The **Distribution Line Rebuild** program replaces overhead and underground distribution lines 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 or tree wiring to improve service reliability and resiliency to critical customers. In FY2023, LUMA completed an area planning analysis on over 17 geographic areas corresponding to 289 distribution line feeders and submitted four detailed scopes of work to FEMA for projects representing 42 feeders. Total spend for FY2023 was lower than budget due to engineering costs being less than expected. The decrease in cost resulted from the additional time required for project design to ensure significant reliability improvements, and the extra time taken pushed project-level detailed engineering into FY2024. The remediated state milestone has been adjusted to be achieved in FY2028, as outlined in the FY2024 Annual Budget filing.

The **Distribution Automation** program focuses on the deployment of equipment for distribution automation. This includes the installation of intelligent switch fuses, fault indicators, and reclosers on select feeders to reduce the number of customer interruptions per outage occurrence. The program includes all engineering activities to enable the deployment of the equipment mentioned above. In FY2023, engineering activities included delivering 160 reliability reports and 201 substation verifications and load data gathering for 161 feeders. In addition, protection settings were completed for 109 feeders and 87 substation feeders for a total of 673 protection device setting packages. Also, LUMA installed 187 TripSavers, 64 three-phase reclosers, 75 fault indicators (38 kV), 993 distribution fault indicators, and 392 new fuse cutouts. Recloser communication options were tested and standardized to initiate procurement in FY2024. Total spend



for FY2023 was lower than budget due to complexities of the federal procurement process, as materials were not received as expected, which impacted spend in both material and construction costs.

The **Distribution Line Assessments** program is targeted at the assessment, testing, and study of distribution lines. Required repairs and replacements are identified to restore the system and improve reliability and resiliency in line with current codes and standards. Assessments include, but are not limited to, poles, ground rods, anchors and guys, conductor condition, and line clearance checks. In FY2023, LUMA performed high-level assessments on 109 feeders and 249 UG assessments, including 80 manhole surveys. Total spend in FY2023 was lower than budget due to the preliminary engineering data collection (PEDC) project not being approved as anticipated. In addition to conducting a health assessment of the line, the goal of the PEDC project was to gather detailed data on conductors, equipment, phasing, and more. This program was further impacted as resources were diverted to the post-Hurricane Fiona assessment efforts. At this time, there is no expected variance in achieving program milestones.



Transmission Improvement Portfolio Summary (\$ millions)

The **Transmission Improvement Portfolio** focuses on improving system recovery, resilience, and transformation through the Transmission Line Rebuild program, IT OT Telecom Systems and Network program, and the Transmission Priority Pole Replacements programs.

Program		FY2023 Budget ¹		FY2023 Actuals ¹		Variance (\$)	Variance (%)
Transmission Line Rebuild	\$	87.1	\$	32.9	\$	54.2	(-)
Federally Funded	•	85.3	Ψ.	31.1	Ψ.	U-1.2	
Non-Federally Funded		1.8		1.8			
OpEx		-		(0.0)			
SRP		83.1		31.4			
IT OT Telecom Systems & Network	\$	32.4	\$	5.5	\$	26.9	
Federally Funded	•	32.0	•	5.1	•		
Non-Federally Funded		-		0.1			
OpEx		0.4		0.3			
SRP		32.4		5.4			
Transmission Priority Pole Replacements	\$	6.0	\$	29.6	\$	(23.6)	
Federally Funded		6.0		29.0		, ,	
Non-Federally Funded		-		0.6			
OpEx		-		-			
SRP		6.0		2.43			
Programs <5% of Portfolio Total	\$	3.0	\$	0.9	\$	2.1	
Federally Funded		2.9		0.9			
Non-Federally Funded		0.1		0.0			
OpEx		-		-			
SRP		3.0		0.9			
otal	\$	128.5	\$	69.0	\$	59.5	469

¹ Figures may not add due to rounding.

Tot

The **Transmission Line Rebuild** program focuses on rebuilding, hardening, and upgrading the 230 kV, 115 kV, and 38 kV transmission infrastructure. In FY2023, LUMA submitted initial scopes of work for 25 projects to FEMA and submitted detailed scopes of work to FEMA for 19 projects. Total spend for FY2023 was lower than budget due to delays in obtaining approvals for boring plans and permits needed to continue with geotechnical studies, which delayed the initial design phase. In addition, the U.S. Fish and Wildlife Service department required field surveys for all transmission line projects, which caused further delays. As a result, more expensive detailed engineering was pushed into FY2024. At this time, there is no expected variance in achieving program milestones.

The **IT OT Telecom Systems & Network** program includes investments to improve the systems that carry transmission and distribution and substation IT and OT data. In FY2023, LUMA submitted four initial scopes of work to FEMA; completed engineering standards, specifications, and testing program processes for telecom network and fiber installation; and mitigated battery, microwave, substation telecom, and fiber damages due to Hurricane Fiona. Also, requests for proposals were issued for both the Land Mobile Radio and the Network Transport programs to progress to the vendor selection phase. Total spend for FY2023 was lower than budget mainly due to the complexities of complying with the federal procurement process. Currently, there is no expected variance in achieving program milestones.

The **Transmission Priority Pole Replacement** program includes activities to replace damaged overhead transmission poles, towers, and associated hardware and conductors. In FY2023, LUMA replaced 75 broken and damaged transmission poles, submitted 21 initial scopes of work to FEMA, and submitted a detailed scope of work. Total spend in FY2023 was higher than budget due to activities associated with Hurricane Fiona emergency repair work, including pole assessments, pole replacements and repairs, and vegetation clearing, which was not contemplated in the FY2023 budget. At this time, there is no expected variance in achieving program milestones.



Substations Improvement Portfolio Summary (\$ millions)

The **Substation Improvement Portfolio** aims to improve system resiliency and safety while rebuilding, hardening, and modernizing substations through the Substation Rebuilds, Substation Security, and Substation Reliability programs.

Program	FY2023 Budget ¹	FY2023 Actuals ¹	Variance (\$)	Variance (%)
Substation Rebuilds	\$ 96.6	\$ 30.6	\$ 66.0	
Federally Funded	95.5	29.0		
Non-Federally Funded	1.1	1.6		
OpEx	-	-		
SRP	96.7	28.9		
Substation Security	\$ 16.9	\$ 1.7	\$ 15.2	
Federally Funded	15.1	1.0		
Non-Federally Funded	0.4	0.0		
OpEx	1.4	0.7		
SRP	15.9	1.5		
Substation Reliability	\$ 11.4	\$ 25.3	\$ (13.9)	
Federally Funded	-	14.5		
Non-Federally Funded	11.4	10.4		
OpEx	-	0.3		
SRP	-	-		
Programs <5% of Portfolio Total	\$ 0.8	\$ 0.7	\$ 0.1	
Federally Funded	-	(0.0)		
Non-Federally Funded	0.1	0.7		
OpEx	0.7	0.0		
SRP	-	-		
	\$ 125.8	\$ 58.3	\$ 67.5	5
	\$ -	\$ -	\$ 67.5	

¹ Figures may not add due to rounding.

The **Substation Rebuild** program focuses on improving transmission and distribution substations to strengthen the electric grid. In FY2023, LUMA received and submitted initial scopes of work to FEMA for 53 substation rebuild projects, submitted detailed scopes of work to FEMA for 28 substation rebuild projects, and submitted eight engineering procurement and construction projects to FEMA. Total spend for FY2023 was lower than budget due to delays in getting equipment drawings and materials needed to complete the design, which delayed approvals and impacted budgeted spend. At this time, there is no expected variance in achieving program milestones.

The **Substation Security** program focuses on security at transmission substations. The program will replace and add new security technology and hardware to deter, detect, and delay security incidents. Key FY2023 activities included receiving FEMA funding obligation for five detailed scopes of work submissions in support of 19 projects, completing substation yard vegetation management, starting construction work on two substations, and awarding two contracts, one for services and one for equipment, for closed-circuit television and electronic access control installation and equipment procurement. Total spend in FY2023 was lower than budgeted due to delayed activities for FEMA-compliant engineering services and awarded contracts experiencing a shortage of personnel. The establishment and execution of design, construction, closed-circuit television, and access control contracts have been achieved and the remediated state milestone has been adjusted to be achieved in FY2032 as outlined in the FY2024 Annual Budget filing.

The **Substation Reliability** program covers upgrading and reinforcing the existing and aging system infrastructure to improve system reliability. In FY2023, LUMA replaced 23 battery banks, 16 transmission breakers, 12 distribution breakers, and one distribution transformer. We also completed 20 breaker protection upgrades, three transmission line protection upgrades, and two transformer protection upgrades. Six load tap changers and more than 50 out-of-service feeder breakers were restored. In addition, 89 protection relays and 11 supervisory control and data acquisition remote terminal units were replaced. Total spend in FY2023 was higher than budget due to substation emergency repair work associated with Hurricane Fiona, which was not contemplated in the FY2023 budget.



Control Center and Buildings Improvement Portfolio Summary (\$ millions)

The **Control Center and Buildings Improvement Portfolio** focuses on building the necessary infrastructure to deliver economic and reliable energy and meeting applicable laws and regulations through Critical Energy Management System (EMS) Upgrades, Facilities Development & Implementation, and Control Center Construction & Refurbishment programs.

Program	FY2023 Budget ¹	FY2023 Actuals ¹	Variance (\$)	Variance (%)
Critical Energy Management System Upgrades	\$ 25.7	\$ 1.7	\$ 24.0	
Federally Funded	25.5	1.5		
Non-Federally Funded	0.2	0.2		
OpEx	-	0.0		
SRP	25.6	1.7		
Facilities Development & Implementation	\$ 14.8	\$ 2.7	\$ 12.1	
Federally Funded	10.1	0.3		
Non-Federally Funded	2.3	2.1		
OpEx	2.4	0.3		
SRP	13.1	2.4		
Control Center Construction & Refurbishment	\$ 9.4	\$ 2.6	\$ 6.8	
Federally Funded	9.3	2.5		
Non-Federally Funded	0.1	0.1		
OpEx	-	-		
SRP	6.2	1.7		
Programs <5% of Portfolio Total	\$ 1.5	\$ 1.0	\$ 0.5	
Federally Funded	0.1	(0.0)		
Non-Federally Funded	1.0	0.3		
OpEx	0.4	0.7		
SRP	0.1	0.1		
tal	\$ 51.5	\$ 8.0	\$ 43.5	85

¹ Figures may not add due to rounding.

The **Critical Energy Management System Upgrades** program will replace the obsolete and unsupported energy management system (EMS) and add relevant technology to operate the electric system safely and reliably. This EMS will enable large-scale integration of renewable energy into the grid operation. Key FY2023 activities included executing the contract to replace the critical management system. The spending continues to be lower than anticipated due to delays in contract development. The remediated state milestone has been adjusted to be achieved in FY2025 as outlined in the FY2024 Annual Budgets filing. The new go-live target has been set for December 2024.

The **Facilities Development & Implementation** program is focused on the construction required to remediate facilities and real property. Key FY2023 activities included developing a comprehensive employee training program and tracking mechanisms, implementing a preventative maintenance services program, recruiting an internal workforce, and establishing a facility service department separate from operations and maintenance. The facility service department decreased service requests by 11% from FY2022, renovating 15 spaces, which allowed LUMA to create 400 more workstations for operational growth. Finally, there are 15 federal projects in progress of the preliminary design. The spending for this program was lower than anticipated, primarily due to the complexity of federal procurement requirements and processes. The variance in program milestones includes a one-year delay for federal building programs and a delay in O&M projects due to operational budget reductions. Non-federally funded capital projects are on track.

The **Control Center Construction & Refurbishment** program is targeted at the construction or refurbishment of buildings to house the main and backup control centers and all ancillary support services. Key FY2023 activities included completing the contract, schematic design, and design development phases with the architecture and engineering (A&E) team for the primary control center, preparing and submitting the primary control center's detailed scope of work for FEMA review and fund obligation, identifying and analyzing land parcels targeted for acquisition for the secondary control center, and submitting and obtaining approvals for primary control center environmental permits (environmental recommendations/environmental determination [REA, DEA]). The actuals for this program are less than budgeted due to the delay in the A&E contract execution, which was not reflected in the budget targets. There is no anticipated variance to program milestones.



Enabling Improvement Portfolio Summary (\$ millions)

The **Enabling Improvement Portfolio** of investment projects focuses on safety and operational excellence through Vegetation Management, Compliance Studies Technology and Performance, Health, Safety, Environment and Quality (HSEQ) and Technical Training, T&D Fleet and Tools Repair & Management programs.

Program	FY2	023 Budget ¹	FY2023 Actuals ¹	Variance (\$)	Variance (%)
Vegetation Management ²	\$	52.5	\$ 62.7	\$ (10.2)	
Federally Funded		-	-		
Non-Federally Funded		-	-		
OpEx		52.5	62.7		
SRP		52.5	62.7		
Compliance, Studies, Technology and Performance	\$	18.3	\$ 22.7	\$ (4.5)	
Federally Funded		16.3	23.1		
Non-Federally Funded		2.0	(0.6)		
OpEx		-	0.2		
SRP		15.3	19.0		
ISEQ and Technical Training	\$	15.0	\$ 10.4	\$ 4.6	
Federally Funded		-	-		
Non-Federally Funded		-	-		
OpEx		15.0	10.4		
SRP		15.0	10.4		
T&D Fleet	\$	12.2	\$ 30.9	\$ (18.7)	
Federally Funded		1.6	(0.0)	` ,	
Non-Federally Funded		8.2	8.2		
OpEx		2.4	22.7		
SRP		11.7	30.9		
Tools Repair & Management	\$	6.0	\$ 5.8	\$ 0.2	
Federally Funded		-	-		
Non-Federally Funded		6.0	5.8		
OpEx		-	-		
SRP		6.0	5.8		
Programs <5% of Portfolio Total	\$	9.1	\$ (9.8)	\$ 18.9	
Federally Funded		2.3	(13.4)		
Non-Federally Funded		2.9	3.1		
OpEx		3.9	0.5		
SRP		3.8	1.6		
l .	\$	113.0	\$	\$ (9.6)	(9

¹ Figures may not add due to rounding.

The **Vegetation Management** program includes work to abate or mitigate immediate hazards caused by vegetation in critical locations and an ongoing program to clear and re-establish the rights of way to standard widths. Key FY2023 activities included completing the planned and unplanned reclamation of over 1,800-line miles of electric lines during the fiscal year using non-federal funding, completing the reclamation of over 500 miles of electric lines during the fiscal year using federal funding, submitting the FEMA project initial scope of work for \$1.2 billion for an island-wide vegetation clearing project and submitting two detailed scopes of work to FEMA for the initial phase of the effort. The variance in the Operations budget is mainly due to an increase in contractor resources to complete more planned miles of reclamation before hurricane season. The purchase and beginning of implementation of a field-enabled IT tool and the submission of vegetation clearance initial scope of work to FEMA have been completed. At this time, there is no expected variance in achieving program milestones.



² The actuals associated with the federally funded capital vegetation line clearance are included in the line rebuild improvement programs.

Vegetation Miles and Acres Cleared

	FY20	023 Miles Clear	ed	FY20	ared	
Voltage	Federally Funded	OpEx	Total Miles	Federally Funded	OpEx	Total Acres
Distribution	445	787	1,232	648	1,144	1,792
38 kV	23	425	448	68	1,289	1,357
115 kV	24	343	367	290	4,153	4,443
230 kV	105	294	399	1,272	3,560	4,832
Total	597	1,849	2,446	2,278	10,146	12,424

¹To calculate acres from miles, the miles are converted to feet by multiplying by 5,280. Then the width of the right of way (ROW) is assumed for each voltage level (distribution = 12', 38 kV = 25', and 115 and 230 kV = 100'). The miles (in feet) are multiplied by the ROW width (in feet) to determine the square feet completed. Finally, the square feet are converted to acres by dividing by 43,560 sq feet per acre.

The **Compliance**, **Studies**, **Technology & Performance** program supports the completion of T&D planning and protection studies and the production of hosting capacity information for public and internal use. This program also procured power quality monitoring equipment and meters for each district. In FY2023, LUMA submitted 25 detailed scopes of work to FEMA, completed 39 substation rebuild studies, evaluated Puerto Rico's ability to meet interim Act 17 goals of 40% solar by 2025 and 30% energy efficiency by 2040 and continued to model system protection for 115 kV and 38 kV wide-area protection coordination studies and updating the impedances within the primary model. Total spend in FY2023 was higher than budget due to increased T&D planning studies identified as part of area planning and distribution line rebuilds, substation configuration analysis, and system-level studies. At this time, there is no expected variance in achieving program milestones.

The **HSEQ & Technical Training** program provides HSEQ and technical training to field personnel. Key FY2023 activities included training in diverse Health, Safety and Environment programs, including electrical safety, excavations, trenching, and environmental requirements to over 1,000 employees, partnering with the American Public Power Association to provide fall-protection awareness training to 103 employees, completing around 2,000 direct training hours with 234 employees in the Utility Lineworker Apprenticeship and Upskilling Program, and over 800-course completions in HSEQ training, including electrical safety, equipotential bonding, and grounding, confined space entry, and OSHA standards. The spending was lower than anticipated due to lower amounts of training completed in the first half of the year due to the prioritizations of the response to Hurricane Fiona. Despite delays, there is no expected variance in achieving program milestones.

The **T&D Fleet** program includes activities and investments to bring the current vehicle, aircraft, and equipment fleet up to industry standards. It is focused on initializing and improving processes for data collection, repair, and maintenance of these assets. Key FY2023 activities included completing 955 Department of Transportation inspections and over 426 American National Standards Institute vehicle compliance inspections, providing over 3,100 hours of training to the fleet personnel (including supervisors, managers, and mechanics), repairing and opening the San Germán workshop, obtaining fire extinguisher certification for 161 vehicles in compliance with laws and regulations, and developing and implementing an electronic daily fleet reporting system and repairing the fuel dispatch system connection in Mayagüez and San Sebastián to central offices. The variance increase is due to major repairs in specialized units to keep them in compliance. The remediated state milestone has been adjusted to be achieved in FY2032 as outlined in the FY2024 Annual Budgets filling.

The **Tools Repair & Management** program focuses on a personal protective equipment and tooling plan to address safety needs while implementing a better system for managing personal protective equipment and tools, including a centralized tool and equipment crib system. Key FY2023 activities included completing an inventory for the existing tools, purchasing necessary personal protective equipment, addressing critical tool inventory gaps, progressing with the procurement process for a standalone tool crib service contract, managing critical tool inventory, preparing, conducting, and initiating for a tools and equipment tender for a multi-year purchase agreement, providing training on tool usage and maintenance, implementing standardized processes procuring critical tools for substations, telecom and line construction



areas, designing additional tool crib locations and training Operations personnel. Despite some spending being below forecast, overall spending for the year remained within the FY2023 budget. At this time, there is no expected variance in achieving program milestones.

Support Services Improvement Portfolio Summary (\$ millions) - Results

The **Support Services Improvement Portfolio** supports the overall successful operation of the utility through various programs, including the Human Resources Programs, the Renewables Integration, Studies and Implementation program, and the IT OT Asset Management program and updates to third-party use, audit, contract, and billing procedures.

Program	FY2023 Budget ¹	FY2023 Actuals ¹	Variance Variar (%)	
HR Programs Federally Funded	\$ 62.7	\$ 79.1 -	\$ (16.4)	
Non-Federally Funded OpEx SRP	0.3 62.5 -	0.2 78.9 -		
Renewables Integration, Minigrids & Generation Studies Federally Funded Non-Federally Funded OpEx	\$ 5.0 - 0.0 4.9	\$ 2.7 - 0.0 2.7	\$ 2.2	
SRP IT OT Asset Management Federally Funded Non-Federally Funded	\$ - 6.8 5.9 0.1	\$ - 1.3 1.1 0.1	\$ 5.5	
OpEx SRP Update to Third Party Use, Audit, Contract and Billing Procedures Federally Funded	\$ 0.8 6.6 5.8 2.9	\$ 0.1 1.3 4.1 -	\$ 1.6	
Non-Federally Funded OpEx SRP	- 2.8 2.5	- 4.1 2.0		
Programs <5% of Portfolio Total Federally Funded Non-Federally Funded OPEX	\$ 17.0 - 4.3 12.7	\$ 6.3 (0.2) 3.8 2.7	\$ 10.7	
SRP otal	\$ 14.9 97.3	\$ 5.7 93.6	\$ 3.6	4%

¹ Figures may not add due to rounding.

The **Human Resources** program includes activities to implement an employee benefit program, an employee engagement strategy, core compliance training, and human capital management software. Key FY2023 activities included negotiating and working on the renewing of the three-year health insurance contract, generating training on required human resources compliance topics (sexual harassment, domestic violence, workplace harassment), code of ethics, code of conduct, developing and implementing an optimized performance management process, training all employees and managers in the appraisal and calibration process, enhancing acquired modules of the human capital management system, developing a compensation matrix, and creating a policy to standardize procedures. This program's spend was higher than anticipated, primarily due to higher than-budgeted employee benefit costs for the year.

The **Renewables Integration Studies & Implementation** program involves completing planning, technical studies, program development, and pilot implementation to support compliance with the integrated resource plan and regulatory requirements related to renewable integration, distributed energy resources, and generation. Key FY2023 activities included developing and finalizing the Puerto Rico Electric Vehicle Adoption Plan and preparing for implementation, conducting the request for proposals process for energy efficiency/demand response (EE/DR) implementation contractor to deliver new EE/DR programs, completing planning and development for the Battery Emergency Demand Response Program, conducting a request for proposals process for electric vehicle time of use rate, making significant advancements with the EE/DR program development and funding, and beginning preparations for program launch. The development of electric vehicles (EV) webpage and education tools have been completed. The variance for this program is because the activities associated with this program have been slower than anticipated, resulting in lower spending.



The IT OT Asset Management program introduced industry-standard IT OT asset management procedures and continues to provide the necessary system upgrades to ensure secure business operation and continuity and improved customer responsiveness. The program's scope 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 establishing a new backup data center to ensure the reliability and stability of technology systems. Key FY2023 activities included implementing the migration map process, completing outage management system configuration enhancements to prepare for Networks Professional and Networks Enterprise softwares, implementing work type integrations between MiLUMA Web, Mobile App, and outage management system (OMS), improving the network connectivity through a new/dedicated internet protocol for all dispatchers working with the OMS, and conducting an emergency replacement of three failed OMS dispatcher machines. Total spend for the year was lower than expected due to contract management and expired contracts, limited ability to engage vendor support and licenses, the inability to procure parts and materials, and FEMA funding not approved or obligated yet on submitted detailed scopes of work and scopes of work. At this time, the target for completion is FY2024.

The **Update to Third Party Use, Audit, Contract & Billing Procedures** program is focused on updating procedures for third-party use of land, infrastructure, audits, contracts, and billing. In FY2023, LUMA processed more than 1,550 third-party attachments (representing more than 40,000 pole attachments), continued negotiations with the telecommunication companies related to signing a joint pole use agreement with LUMA, and implemented a pole repository system that will track what attachments from which companies are attached to our poles. Total spend in FY2023 was lower than budget due to the proposed federally funded work not being required. Currently, there is no expected variance in achieving program milestones.

The 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.



FY2023 Shared Services

LUMA is responsible for delivering Shared Services to perform certain administrative, managerial, and operational services as required for the operation and management of Legacy Generation Assets. These responsibilities were contemplated as outlined in Annex VI of the Puerto Rico Transmission and Distribution System Operation and Maintenance Agreement (T&D OMA) and are governed by the Shared Services Agreement between PREPA, P3A, and LUMA, effective June 1, 2021. The purpose of these shared services is to provide services while PREPA reorganizes, including material support and actions related to GenCo's transition from PREPA's operations to Genera. These activities were not contemplated in the original FY2023 budget and resulted in material overspending on certain activities in the second half of FY2023. During this period under the Shared Service Agreement, also known as the Shared Services Period, LUMA provides PREPA with services that generally fall into three (3) areas:

- T&D Operations This is limited to technical operation and maintenance (O&M) support for specific electrical
 equipment under the responsibility of PREPA at generation plant locations historically supported by Substation and
 Lines teams.
- Information Technology This support provides access and services to PREPA on IT OT infrastructure managed by LUMA.
- Finance and Accounting This includes general accounts payable, accounting and treasury activities provided by LUMA for PREPA and the placement of insurance policies covering all of PREPA's assets and activities (T&D and generation).

The costs for the Shared Services activities are considered part of Generation Pass-Through Expenditures incurred by PREPA in accordance with the T&D OMA.

Shared Services Summary (\$ millions)

	FY2023 Budget ¹	FY2023 Actuals ¹	Variance (\$)	Variance (%)
Labor	4.7	3.5	1.2	
Property & Casualty Insurance	44.1	52.1	(8.0)	
IT Service Agreements	7.6	4.1	3.5	
Professional & Technical Outsourced Services	1.5	5.3	(3.8)	
Other	0.7	1.8	(1.1)	
Subtotal	\$ 58.6	\$ 66.8	\$ (8.2)	-14%
2% Reserve for Excess Expenditures	1.2		1.2	
Shared Services Total	\$ 59.8	\$ 66.8	\$ (7.0)	-12%

¹ Figures may not add due to rounding.

The primary driver for the \$7.2 million year-to-date variance is higher property and casualty insurance costs as a result of higher-than-expected premiums for the generation fleet as a portion of the total insurance program, as well as increased professional and technical outsourced services cost mainly related to Genera transition activities.

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Efficiencies Reporting

Compliance with Section 8 of the May 31, 2021 Resolution and Order and the February 27, 2023 Resolution and Order

As reported by LUMA to the PREB across multiple dockets, LUMA continually seeks to improve the performance of the T&D System and deliver better services while being fiscally responsible. As illustrated in LUMA's Quarterly and Annual reports, LUMA continues to make progress in the PREB's six key areas of improvement.

"Making Contracting of services more efficient."

LUMA continues to review its procurement processes, expertise and tools in efforts to continuously improve. LUMA prioritizes maintaining proper diligence and adhering to legal requirements when performing contracting services on behalf of PREPA.

By ensuring compliance with relevant regulations and laws, we create a safe, reliable and ethical environment to conduct business operations. We endeavor to follow industry practices to enhance our services. With continued dedication and pursuit of standards, LUMA strives to carefully balance compliance and efficiency in order to deliver improved electric service to our customers.

LUMA's improvements in processes, procedures and systems will bring benefits to the contracting process while enhancing transparency. The Procurement Manual provides guidance for every stage of the procurement process, from assessing requirements to delivering results, ensuring teams follow the common framework, established processes, internal controls and procedures. It also offers a pathway for overall efficiency for both the supplier and contracting parties by streamlining in a clear format state and federal requirements. Enhanced procurement supports an ambitious investment program that will see approximately \$1 billion per year in capital improvements of the electric system.

LUMA is working to standardize processes, promote automation and reduce errors and redundancies. Greater alignment between business processes and contracting practices will provide enhanced visibility and promote accountability and continuous improvement.

"Revenue collections from past due bills to be more effectively addressed."

Since Commencement, LUMA's Revenue Protection Team has collected a total of over \$890 million in past due accounts. In FY2023, LUMA reduced general customer day sales outstanding (DSO) by 30 days and Government DSO by 34 days and worked with Puerto Rico agencies to reduce central government past due accounts receivable by 50% and collect approximately \$125 million. Additionally, outside of the reporting LUMA has conducted to date on revenue collection, LUMA reports on DSO regularly through its performance metrics proceeding (Docket No: NEPR-MI-2019-0007).

LUMA Revenue Protection Team is solely focused on the collection of overdue debt. This is a team that LUMA implemented at commencement to ensure there is a dedicated focus on this task to prevent past-due accounts from continuing to build up arrears. LUMA has established a standardized 30/60/90 collection process that includes customer outreach through phone, email and letters to establish payment plans to enable customers to pay their past due balance. LUMA is also implementing automated processes through the Customer Care & Billing System to automatically flag



accounts that require a collection activity on daily billing cycles. Standardizing process and procedure drives consistent, efficient and effective collection activities across customer classes.

"Transmission line losses will be minimized."

While transmission line losses do not represent a significant area of improvement, LUMA recognizes its importance and is focused on addressing this by rebuilding the grid utilizing modern design and planning practices in accordance with industry standards.

Modern design and planning practices help improve grid services, including reducing the energy loss in the transmission and distribution systems. Rebuilding and reconductoring key transmission lines will represent modest reductions in transmission line losses. Consequently, reducing transmission losses does not represent a major opportunity for LUMA to improve efficiency.

"Energy theft will be reduced."

As outlined in the FY2023 Fourth Quarter Report, LUMA has addressed more than 50 illegal connections by commercial or industrial customers after disconnections for nonpayment began and has reported these cases to law enforcement. Some cases may result in criminal charges being filed.

With respect to energy theft, an issue that impacts all our customers and our communities, LUMA has reduced the number of inactive accounts with energy consumption by almost 35% over the past 12 months. Looking ahead, we will continue to prioritize reducing the impact of energy theft on our customers.

This is as a direct result of the Loss Recovery Improvement Program included within LUMA's Annual Budgets.

Energy theft impacts the overall rate base as revenue remains uncollected for energy produced and distributed to customers. Reducing energy theft will, in turn, reduce the need to recoup the cost of unbilled electricity through rate increases. LUMA will focus on energy theft reduction initiatives by educating operational and administrative staff to recognize, record, and handle cases of irregularities through proper investigation processes. Standard procedures were developed as a crucial component of this initiative to establish operational and administrative uniformity. The execution of the standard processes enables a larger number of theft recoveries and the removal of irregularities, ensuring customers are accurately billed for the energy they are consuming To ensure compliance with current laws, LUMA has developed relationships with government offices like the Puerto Rico Police Department to ensure the proper support is provided on energy irregularity cases. as the following initiatives will contribute to the reduction of energy irregularities:

- Media outreach to discourage energy irregularities
- Use of the theft hotline, e-mails, postal mail, and confidential call center information to create field activity to investigate potential theft cases
- Purchase of specialized equipment to improve efficiency in detecting irregularities in the field
- Continuous evaluation and development of procedures for process unification in irregularities
- Invoicing unbilled consumption in cases where irregularities are discovered (energy theft)
- Positive theft cases will be submitted to the Department of Justice

"Customers without meters or with malfunctioning meters will be addressed."

As outlined in the FY2023 Fourth Quarter Report, LUMA has performed over 15,000 meter replacements and over 3,900 meter repairs. Since commencement, LUMA has exchanged over 77,000 meters including net energy meters.

Additionally, LUMA has established the meter shop in the Guaynabo area, where a process of meter recertification, quality testing, and recycling has been implemented. In this way, we ensure that the meters installed for our customers maintain adequate accuracy and functionality for their remote reading systems. Providing our customers with better reliability in



their readings and an increase in system efficiency, allowing reduced meter purchases, the opportunity for new technology, and refocusing operational efforts in other areas.

Meter recycling allows us to improve our inventory and continue with malfunctioning meter replacements in the field and provides bidirectional meters for thousands of net meters. This, without compromising our daily operations, reduces manual readings in the field and strengthens our field operations.

This progress results from the Distribution Meter Replacement & Maintenance Improvement Program included within LUMA's Annual Budgets and SRP and the Standardized Metering & Meter Shop Setup Improvement Program included within LUMA's Annual Budgets.

Implementing the Advanced Metering Infrastructure project with FEMA funding will enable the installation of new meters for virtually all LUMA customers over several years. This will dramatically reduce the number of unmetered customers and customers with malfunctioning meters.

"The electric distribution infrastructure will become more efficient... Pursuing additional revenue from third parties, such as telecommunication companies, who utilize electric poles for their attachments."

The fee for third party attachments on electric utility poles is under negotiation at the moment but estimates for the annual revenue potential were provided in the June 9, 2023 technical conference undertaking response TC-RFI-LUMA-MI-2021-0004-20230609-PREB-0002. The actual amount will depend on multiple factors outside of LUMA's control including potential regulatory and legal determinations.

This work continues to progress under the Update to Third Party Use, Audit, Contract, and Billing Procedures Improvement Program within LUMA's Annual Budgets and SRP and is reported quarterly and annually.

The benefits resulting from actions across these six areas, as well as the result of the improvement portfolios and remediation activities identified in the PREB-approved SRP directly benefit ratepayers, either by allowing LUMA to operate more effectively or by reducing the cost of a particular activity within LUMA.

Those benefits are reflected and embedded in the budgets developed, and results delivered over the last three years. During these three years, energy sales have decreased noticeably. Nevertheless, LUMA developed reasonable budgets, increased the scope of activities, and improved performance without seeking rate adjustments. Future efficiencies will continue to be embedded in budgets, particularly as LUMA seeks to ensure compliance with its T&D OMA obligations of operating within budget and within the revenue requirement derived from applicable rates while improving performance.

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