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

IN RE:

THE PERFORMANCE TARGETS FOR LUMA ENERGY SERVCO, LLC

CASE NO.: NEPR-AP-2020-0025

SUBJECT: Testimonies on Additional Metrics

LUMA'S SUBMISSION OF TESTIMONIES ON ADDITIONAL METRICS

TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

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

1. On December 22nd, 2021, the Puerto Rico Energy Bureau ("Energy Bureau") entered a Resolution and Order whereby it concluded that additional performance-based incentive metrics must be evaluated as part of this procedure ("December 22nd Resolution and Order"). To that end, the Energy Bureau identified three additional categories of performance metrics: (i) Interconnection of Distributed Energy Resources; (ii) Energy Efficiency and Demand Response; and (iii) Vegetation Management.

2. In the December 22nd Resolution and Order, the Energy Bureau ordered LUMA to file a revised Annex IX to the Puerto Rico Transmission and Distribution System Operation and Maintenance Agreement ("T&D OMA"), including targets and supporting metrics for (i) Interconnection; (ii) Energy Efficiency/Demand Response; and (iii) Vegetation Management. The

Energy Bureau also ordered LUMA to provide supplemental or revised direct pre-filed testimonies for the new metrics and targets.

3. On February 17th, 2022, LUMA filed *LUMA's Response in Opposition and Objection to December 22nd, 2021, Resolution and Order and Request to Vacate or Grant LUMA Relief from the December 22nd, 2021 Resolution and Order* ("LUMA's Objection").[1] In essence, LUMA contended that the December 22nd Resolution and Order entry was arbitrary and in violation of LUMA's due process rights and requested that this Energy Bureau vacate said order.

4. On August 1st, 2022, this Energy Bureau entered a Resolution and Order, whereby it denied LUMA's Objection ("August 1st Order"). In turn, it ordered LUMA to file within twenty (20) days: (i) a revised Annex IX to the T&D OMA, including targets and supporting metrics for Interconnection, Energy Efficiency/Demand Response, and Vegetation Management; and (ii) a supplemental or revised direct pre-filed testimony for targets and supporting metrics for the performance metric targets described in the December 22nd Resolution and Order.

5. On August 18th, 2022, LUMA submitted a Motion styled *Motion to Request Extension of Time to Submit a Revised Annex IX and Pre-Filed Written Direct Testimonies in Compliance with the Resolution and Order of August 1st, 2022* ("August 18th Request for Extension"), whereby LUMA requested an extension until September 21st, 2022, to file its submissions in compliance with the August 1st Order. In the August 18th Request for Extension,

[1] On March 14th, 2022, LECO filed a *Reply to LUMA's Response in Opposition to the December 22nd, 2021, Resolution and Order on Additional Metrics*. LECO averred that the Energy Bureau has authority to require the inclusion of additional metrics in this proceeding and that the Determination of Completeness entered by the Energy Bureau on August 25th, 2021, does not prohibit the Energy Bureau from requiring consideration of additional metrics. LECO also set forth that the December 22nd Resolution and Order ensure due process rights to all parties in this proceeding and that LUMA's Objection constitutes a tardy motion for reconsideration. Thereafter, on March 24th, 2022, LUMA filed *LUMA's Response to LECO's Reply to LUMA's Response in Opposition to the December 22nd, 2021, Resolution and Order on Additional Metrics.*

LUMA suggested a filing date of September 21st, 2022. Said proposed date was congruent with the then-current regulatory workload and considered the then-current workload of at least three witnesses who will offer the pre-filed written direct testimonies on the additional metrics.

6. On September 9th, 2022, LUMA filed an *Amended Request for Extension of Time to Submit Revised Annex IX and Pre-Filed Written Direct Testimonies in Compliance with Order of August 1st, 2022*, requesting the Energy Bureau to extend the deadline further to file the revised Annex IX until October 3rd, 2022, and the deadline to file the pre-filed written testimonies on the additional metrics on October 6th, 2022.

7. On September 16th, 2022, this Energy Bureau entered a Resolution and Order granting LUMA's Amended Request for Extension of Time as well as LECO's and the ICPO's request for discovery limited to the additional metrics ("September 16th Order"). Through the September 16th Order, the Energy Bureau also issued an amended procedural calendar for the instant proceeding contemplating the celebration of the virtual evidentiary hearings from January 24th through 27th, 2022.

8. On Thursday, September 15th, 2022, at 0800, the United States National Weather Service announced the imminent passage of Tropical Storm Fiona through Puerto Rico, LUMA activated its Emergency Operations Center (LEOC) in compliance with LUMA's Emergency Response Plan. Preparing for and responding to Hurricane Fiona required the engagement of many key personnel and components of the organization. Consequently, LUMA personnel that were at that time working on the revised Annex IX, including the witnesses whose testimonies as to the three additional metrics will be presented, were activated in the LEOC in the response and restoration efforts in the aftermath of Hurricane Fiona. Restoration, repairs, and concomitant administrative support will continue in the coming weeks. For these reasons, on September 30th,

2022, LUMA filed a *Motion to Amend Procedural Calendar, Requesting Additional Time to Submit Revised Annex IX and Pre-Filed Written Direct Testimonies due to Change in Circumstances, and Proposing Amended Procedural Calendar* ("September 30th Request to Amend Procedural Calendar"). Thus, LUMA requested the Energy Bureau extend the timeframe to file the revised Annex IX to the T&D OMA and the pre-filed written direct testimonies on the additional metrics to October 28th, 2022. LUMA also proposed an amended procedural calendar.

9. On October 4th, 2022, ICPO filed a motion titled *Moción en Oposición a Moción Radicada por LUMA en Solicitud de Prórroga y Recalendarización de los Procesos Radicada por LUMA*. ICPO opposed the remedies sought by LUMA without stating any reasons for its position.

10. On October 5th, 2022, the Energy Bureau entered a Resolution and Order allowing all intervenors in this proceeding until October 8th, 2022, to respond to LUMA's and ICPO's motions.

11. On October 10th, 2022, LECO filed *LECO's Response to LUMA's Motion to Amend Procedural Calendar, Requesting Additional Time to Submit Revised Annex IX and Pre-Filed Written Direct Testimonies due to Change in Circumstances, and Proposing Amended Procedural Calendar* ("LECO's October 10th Opposition"). LECO joined ICPO's motion in opposing the extension requested. It also asked the Energy Bureau to impose penalties on LUMA for the alleged delay in filing the revised Annex IX to the T&D OMA and the pre-filed written direct testimonies on the additional metrics. On October 26, 2022, LUMA submitted a reply to LECO's October 10th Opposition.

12. On October 14th, 2022, the Energy Bureau entered a Resolution and Order amending the procedural calendar of this instant proceeding. It granted LUMA's request to file supplemental testimony and a revised Annex IX on or before October 28th, 2022. The Energy

Bureau also granted LECO and OIPC's request for time for additional discovery on LUMA supplemental written testimony and the amended portions of Annex IX.

13. In response to the August 1st Order, LUMA respectfully submits with this motion as **Exhibit 1**, the pre-filed testimony of Mr. Brent Bolzenius regarding a vegetation management performance metric and the pre-filed testimony of Mr. Lee Wood on interconnection and Energy Efficiency /Demand Response performance metrics. Each of these witnesses is an employee of LUMA and is presenting their rebuttal testimony on behalf of LUMA.

WHEREFORE, LUMA respectfully requests this Honorable Bureau to **consider** the aforementioned; and **deem** that LUMA complied with the requirement to submit testimonies on the additional metrics that the Energy Bureau stated in the August 1st Order.

RESPECTFULLY SUBMITTED.

We hereby certify that we filed this motion using the electronic filing system of this Energy Bureau and that I will send an electronic copy of this motion to the attorneys for PREPA, Joannely Marrero-Cruz, jmarrero@diazvaz.law; and Katiuska Bolaños-Lugo, kbolanos@diazvaz.law, the Independent Consumer Protection Office, Hannia Rivera Diaz, hrivera@jrsp.pr.gov, and counsel for the Puerto Rico Institute for Competitiveness and Sustainable Economy ("ICSE"), Fernando Agrait, agraitfe@agraitlawpr.com, counsel for the Colegio de Ingenieros y Agrimensores de Puerto Rico ("CIAPR"), Rhonda Castillo, rhoncat@netscape.net, and counsels for Comité Diálogo Ambiental, Inc., El Puente de Williamsburg, Inc., Enlace Latino de Acción Climatica, Alianza Comunitaria Ambientalista del Sureste, Inc., Coalicion de Organizaciones Anti-Incineración, Inc., Amigos del Río Guaynabo, Inc., CAMBIO, Sierra Club and its Puerto Rico Chapter, and Unión de Trabajadores de la Industria Eléctrica y Riego (jointly, Puerto Rico Local and Environmental Organizations), larroyo@earthjustice.org, lvelez@earthjustice.org, rmurthy@earthjustice.org, rstgo2@gmail.com, notificaciones@bufete-emmanuelli.com, pedrosaade5@gmail.com, jessica@bufete-emmanuelli.com; rolando@bufete-emmanuelli.com.

In San Juan, Puerto Rico, on this 28th day of October 2022.

DLA Piper (Puerto Rico) LLC
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Exhibit 1

Pre Filed Testimonies

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

IN RE:	**CASE NO.:** NEPR-AP-2020-0025
PERFORMANCE TARGETS FOR LUMA ENERGY SERVCO, LLC	

Direct Testimony of
Mr. Brent Bolzenius
Director, Vegetation Management, LUMA Energy ServCo LLC
October 28, 2022

Q1. Please state your name, business address, title, and employer.

A1. My name is Brent Bolzenius. My business address is PO Box 363508, San Juan, Puerto Rico 00936-3508. I am the Director, Vegetation Management for LUMA Energy.

Q2. On whose behalf are you testifying before the Puerto Rico Energy Bureau (the "Energy Bureau").

A2. My testimony is on behalf of the LUMA Energy LLC and LUMA Energy ServCo, LLC, as part of the Commonwealth of Puerto Rico Public Service Regulatory Aboard Puerto Rico Energy Bureau (Energy Bureau) proceeding NEPR-AP-2020-0025, the Performance Targets for LUMA Energy ServCo, LLC.

Q3. Are there any exhibits attached to your testimony?

A3. No, there are no exhibits attached to my testimony:

Q4. What is your educational background?

A4. I hold a Bachelor's Degree in Forestry from the University of Missouri having graduated December 2003. I also hold a Master of Business Administration from Black Hills State University having graduated in May 2014.

Q5. What is your professional experience?

A5. I have approximately 18 years of professional experience vegetation management in the United States Utility Industry with multiple notable utilities. In January 2021, I joined LUMA's Vegetation management department as a Director.

Q6. Please describe your work experience prior to joining LUMA.

A6. Prior to joining LUMA, I managed the overall vegetation programs at two of Xcel Energy's operating companies in Colorado, Texas & New Mexico. Furthermore, prior to Xcel Energy, I spent over 5 years in a leadership role at Black Hills Energy, a utility who's three vegetation management programs over three states were centralized and where tree-caused outages were reduced by 70% during my tenure. Prior Roles included: supervision of all vegetation management activities related to vegetation contractors, their financial management, safety, and work planning at Ameren Union Electric in Missouri and Aguila (merged with Evergy) in Missouri.

Q7. Do you hold any professional licenses, if so, which?

A7. Yes. Two Credentials from the International Society of Arboriculture: Certified Arborist & Utility Specialist and one from the Project Management Institute as a Project Management Professional.

Q8. Have you previously testified or made presentations before the Energy Bureau?

A8. Yes. I have testified in the following proceedings before this Energy Bureau:

a. *In Re: Review of Puerto Rico Electric Power Authority's Comprehensive Vegetation Management Program, Case No. NEPR-MI-2019-0005 i*n an August 13, 2021 Technical Conference, and

b. *In RE Review of LUMA's Initial Budgets, Case NEPR-MI-2021-0004,* in a September 13, 2022 Technical Conference.

Q9. Which documents did you consider for your testimony?

A9. I considered the following documents:

- LUMA's Revised Annex IX to the Puerto Rico Transmission and Distribution System Operation and Maintenance Agreement (T&D OMA) filed with this Energy Bureau on September 23, 2021, in this proceeding
- The T&D OMA
- The Revised Annex IX to the T&D OMA to be filed on October 28, 2022, in this proceeding
- LUMA's Vegetation Management Plan (VMP) filed with this Energy Bureau on August 5, 2021, Case *In re In Re: Revisión del Programa Comprensivo de Manejo de Vegetación de la Autoridad de Energía Eléctrica*, NEPR-MI-2019-0005
- The written testimony of Agustín Irizarry provided on behalf of LECO on November 17, 2021, and his testimony of March 22, 2022, filed in this proceeding
- My prior testimonies in this proceeding, filed on February 1st, 2022, and April 27th, 2022.

Q10. What is the purpose of your Direct Testimony?

A10. The purpose of my testimony is to explain a performance metric for vegetation management that has been included in the Revised Annex IX to the T&D OMA in

attention to an order of this Energy Bureau. LUMA is presenting "Vegetation Maintenance Miles Completed (230kV, 115kV, 39kV, primary Distribution Lines)" for consideration in compliance with the Energy Bureau's Resolution and Order issued on August 1, 2022.

Q11. Please describe the performance metric for the Vegetation Maintenance Miles Completed.

A11. The metric monitors the number of line miles completed for vegetation maintenance work each fiscal year along 230kV, 115kV, 38kV lines, and primary Distribution lines.

Q12. Describe what type of vegetation maintenance work is included in this performance metric.

A12. Vegetation maintenance represents a continuous and repetitive process. These activities are classified into 3 categories:

- Reactive: Work that cannot be planned or scheduled but requires immediate attention. This work is typically related to service interruptions and outages.
- Corrective: Work that is difficult to plan for, but once identified can be efficiently scheduled. This work is generated by customer requests, LUMA operations and/or LUMA staff.
- Preventative: Work that can be specifically planned for and prioritized, scheduled, and managed on a project basis. It represents the largest portion of Vegetation Management in the O&M budget.

Q13. What is the objective of the Vegetation Maintenance Miles Completed performance metric?

A13. The objective is to reduce the impact of vegetation near electric utility infrastructure resulting in improvements in the safety & reliability of the Transmission & Distribution (T&D) system. As the metric will allow LUMA to track progress on the Vegetation Management Plan and incentivizes improved system safety and reliability by promoting vegetation maintenance along transmission and distribution lines, it is my position that if the Energy Bureau rules that a Vegetation Management metric should be added to the Revised Annex IX to the T&D OMA, this should be the metric utilized for vegetation management. I incorporate by reference my prior testimonies in this proceeding, filed on February 1, 2022, and April 27th, 2022, where I explained LUMA's position on

vegetation management performance metrics suggested by intervenors, including that vegetation management metrics are already included in the SAIDI and SAIFI performance metrics.

Q14. Explain how the performance metric on Vegetation Maintenance Miles Completed will result in improvements in the safety & reliability of the T&D system.

A14. As Vegetation can often cause electrical outages in Puerto Rico, increasing the Vegetation Maintenance Miles Completed will assist in reducing interruptions of electrical service in tandem with LUMA's other efforts to improve reliability in order to provide safe and reliable service to LUMA's customers.

Q15. Please describe the methodology for the performance metric on Vegetation Maintenance Miles Completed.

A15. The performance metric target takes into account projections of vegetation maintenance miles possible to complete given the availability of resources, budgets, vegetation conditions, and required day-to-day operational support.

Q16. Explain why only primary Distribution lines were included in the metric.

A16. Examples of secondary Distribution lines include street light service lines and pole to house service drops, among others. These types of lines have a small overall impact on the reliability of the system; and the maintenance miles data associated with secondary Distribution lines are difficult to identify and track.

Q17. What data did you examine to develop the Vegetation Management Metric?

A17. I began with a review of the actual recent historical number of Vegetation Maintenance Miles Completed. Then, I considered LUMA's working knowledge of the T&D system, existing vegetation conditions, and industry vegetation management best practices to project forward a reasonable target for future performance.

Q18. What considerations were made to determine the targets for 1,600 miles on Year 1, 1,800 miles in Year 2 and 2,000 miles in Year 3?

A18 Historical data was used to set targets while considering empirical and working knowledge of the T&D system. I considered that in Fiscal Year 2022, as described in LUMA's Vegetation Management Plan, much of LUMA's vegetation management activities were focused on reactive and corrective work in the first six months of operations due to the overall condition of vegetation clearances on the T&D system. The

targets also consider that in quarters three and four of Fiscal Year 2022, LUMA initiated and transitioned to more planned vegetation maintenance and reclamation as an increasing amount of reactive and corrective work was resolved. I also considered the ongoing transition from reactive and corrective work during Fiscal Year 2023 as the portion of preventative planned work to the total vegetation maintenance work completed is increasing.

Finally, the targets consider that preventative planned work generally requires less time per mile to complete. Therefore, in future years as reactive work is decreased year over year, LUMA will be able to increase its yearly Vegetation Maintenance Miles Cleared target as reflected in the Revised Annex IX filing.

Q19. Explain how the minimum performance levels were established?

A19. Consistent with other metrics in LUMA's Revised Annex IX to the T&D OMA, the minimum performance is set at 10% of the annual target goal.

Q20. What actions will LUMA take to meet the targets?

A20. LUMA will continue to take several actions to meet the targets such as continuing to shift from the reactive/corrective remediation measures to more preventative reclamation of vegetation operations along the T&D system, continuing to seek and implement operational improvements, and seeking opportunities to utilize federal funding sources.

Q21. In brief, what are your recommendations?

A21. It is recommended that if the Energy Bureau determines that a vegetation management metric be included in the Revised Annex IX to the T&D OMA, the Energy Bureau adopt the Vegetation Maintenance Miles Completed metric as proposed by LUMA in Annex IX. The metric will allow LUMA to track progress on the VMP and incentivizes improved system safety and reliability by promoting vegetation maintenance along transmission and distribution lines.

Q22. Does this complete your testimony?

A22. Yes.

ATTESTATION

Affiant, Mr. Brent Bolzenius, being first duly sworn, states the following:

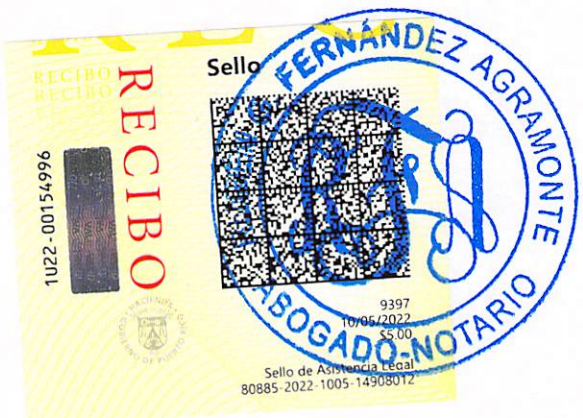
The prepared Direct Testimony constitutes my direct testimony in the above-styled case before the Puerto Rico Energy Bureau. Affiant states that he would give the answers set forth in the Direct Testimony if asked the questions that are included in the Direct Testimony. Affiant further states that, facts and statements provided herein is his direct testimony and to the best of his knowledge are true and correct.

Brent Bolzenius

Affidavit No. 1060

Acknowledged and subscribed before me by Mr. Brent Bolzenius in his capacity as Director, Vegetation Management, LUMA Energy ServCo LLC, of legal age, single, and resident of Bayamón, Puerto Rico, who is personally known to me.

In San Juan, Puerto Rico, this 28 day of October, 2022.



Notary Public

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

IN RE:	**CASE NO.:** NEPR-AP-2020-0025
PERFORMANCE TARGETS FOR LUMA ENERGY SERVCO, LLC	

Direct Testimony of
Mr. Lee Wood
Director, Business Transformation, LUMA Energy ServCo LLC
October 28, 2022

Q1. Please state your name, business address, title, and employer.

A1. My name is Lee Wood. My business address is LUMA Energy, PO Box 363508, San Juan, Puerto Rico 00936-3508. I am the Director of Business Transformation for LUMA Energy ServCo, LLC.

Q2. On whose behalf are you testifying before the Puerto Rico Energy Bureau (the "Energy Bureau")?

A2. My testimony is on behalf of LUMA Energy LLC and LUMA Energy ServCo, LLC as part of the Commonwealth of Puerto Rico Public Service Regulatory Aboard Puerto Rico Energy Bureau (Energy Bureau) proceeding NEPR-AP-2020-0025, the Performance Targets for LUMA Energy ServCo, LLC.

Q3. Are there any exhibits attached to your testimony?

A3. Yes, there is one exhibit attached to my testimony:

Exhibit A – Net Energy Metering (excel spreadsheet).

Q4. What is your educational background?

A4. I hold a Bachelor of Science in Geography and Planning from Appalachian State University and a Master of Business Administration from the University of North Carolina at Chapel Hill.

Q5. What is your professional experience?

A5. I have over 15 years of professional experience working with electric utilities and government agencies on demand-side management (DSM) and distributed energy resource programs (DER). My primary expertise is designing, planning, implementing, and evaluating utility energy efficiency and demand response programs (collectively known as demand-side management). Much of my work experience has involved conducting independent third-party evaluations of utility programs to verify compliance with regulatory targets.

Q6. Please describe your work experience prior to joining LUMA.

a. Energy Efficiency Alberta, Director of Portfolio Planning (2018-2020)

b. Navigant Consulting, Managing Consultant (2014-2018), Senior Consultant (2012-2014), Consultant (2010-2012), Analyst (2008-2010)

c. Yellow Wood Associates, Associate (2006-2008)

d. Vermont Energy Investment Corporation (2005-2006)

Q7. Do you hold any professional licenses, and if so, which?

A7. No

Q8. Have you previously testified or made presentations before the Energy Bureau?

A8. Yes. I have testified in at least the following proceedings before this Energy Bureau:

a. *In Re: Review of the Puerto Rico Electric Power Authority's System Remediation Plan*, Case No. NEPR-MI-2020-0019 on May 14 and 17, 2021

b. *In Re: Review of T&D Operator's System Operation Principles*, Case No. NEPR-MI-2021-0001, on May 10, 2021

c. *In Re: Informes de Progreso de Interconexión de la Autoridad de Energía Eléctrica de Puerto Rico*, Case No. NEPR-MI-2019-0016, on June 8, September 21, and November 23, 2021

d. *In Re: Despliegue de Infraestructura de Cargadores para Vehículos Eléctricos*, Case No. NEPR-MI-2021-0013, on January 27, 2022

e. *In Re: Puerto Rico Test for Demand Response and Energy Efficiency*, Case No. NEPR-MI-2021-0009, on November 18, 2021

f. *In Re: Optimization Proceeding of Minigrid Transmission and Distribution Investments*, Case No. NEPR-MI-2020-00016, on June 23, 2021, March 23, 2021, and January 21-22, 2021

Q9. Which documents did you consider for your testimony?

A9. I considered the following documents for my testimony:

a. Filings in *In Re: Informes de Progreso de Interconexión de la Autoridad de Energía Eléctrica de Puerto Rico*, Case No. NEPR-MI-2019-0016

b. Regulation for Energy Efficiency, Regulation No.9367
Revised Annex IX to the T&D OMA, to be filed with the Energy Bureau on October 17, 2022

c. My prior testimonies in this proceeding dated February 17, 2022, and May 11, 2022.

Q10. What is the purpose of your Direct Testimony?

A10. My testimony covers performance metrics and targets as required by this Energy Bureau on the topics of interconnection and Energy Efficiency/Demand Response (EE/DR). In particular, I testify on the following performance metrics and targets:

a. Interconnection: Average Duration for Net Energy Metering (NEM) Tariff Activation

b. Demand-Side Management: Energy Savings as Percent of Total Energy Sales

c. Demand-Side Management: Peak Demand Savings as a Percent of Total Peak Demand

Q11. Please describe the performance metric on Average Duration for Net Energy Metering (NEM) Tariff Activation.

A11. This metric tracks the average duration (days) for activating the NEM tariff on the customer's bill. Once a complete application has been received in the Distributed Generation Application Web Portal. For a project to be activated, LUMA must validate the application to ensure it is complete and accurate, install a new bi-directional meter, and change the tariff assigned to the customer's account in the billing system. Once this NEM tariff activation process is complete, the customer will see the benefits of NEM on their next bill.

Q12 What is the objective of the performance metric on Average Duration for Net Energy Metering (NEM) Tariff Activation?

A12 To incentivize improvements in Net Energy Metering (NEM) processes that will result in reduced NEM tariff activation time for expedited projects.

Q13 Explain what you mean by expedited cases.

A13. Expedited cases are those Distributed Generation (DG) systems with a generating capacity that is not greater than 25 kW, congruent with Article 9 of Act 114-2007, as amended. These cases make up approximately 99% of the volume of incoming NEM applications.

Q14 Please describe the methodology for the performance metric on Average Duration for Net Energy Metering (NEM) Tariff Activation.

A14. This metric measures the performance of the Net Energy Metering Program, specifically the efficiency of the customer application process for expedited DG interconnection cases. Currently, with the available system inherited from PREPA, LUMA can only track the date when an application is submitted into the Web Portal (start date) and when the NEM tariff is activated on the customer's bill (end-date). Therefore, the total duration for project activation (in days) can be calculated as the end date minus the start date. The resulting duration for each individual project would then be averaged across all projects completed

during the year to determine the program's overall Average Duration for NEM Tariff Activation.

Using this method, however, customer delays would be reflected in the total duration of project activation. For instance, to change the meter, LUMA must schedule a visit with the customer to access the meter on the customer's premises. Sometimes customers do not show up to these scheduled appointments, requiring additional time to reschedule and re-visit the premise. These delays are not LUMA's fault and should not be reflected in the performance metric or the calculation of the duration for activation. To account for those delays that are not attributable to LUMA and until a more sophisticated IT system can be developed, LUMA proposes to flag any projects that are delayed by the customer and exclude them from the overall Average Duration for NEM Tariff Activation for the program.

Q15 Please explain what you mean when you reference a more sophisticated IT System to be developed.

A15 The most accurate way to calculate this metric requires a web portal capable of tracking a "timestamp" for the beginning and end of each individual step LUMA must conduct in order to activate the NEM tariff. This would essentially "stop the clock" when the application is waiting on customer action. The duration (days) between the beginning and end of each of these processes would then be summed to determine the duration for activating the NEM tariff, for each individual project. Then, finally, the duration for each individual project would be averaged across all projects to determine the program's overall Average Duration for NEM Tariff Activation. However, the IT systems that LUMA inherited upon service commencement are not capable of tracking the detailed timestamps for each of these processes individually. For this reason, the simplified method for calculating this metric must be used at this time until this capability can be developed.

Q16 Explain how LUMA will flag the projects that are delayed by the customer to exclude them from the overall Average Duration for NEM Tariff Activation for the program.

A16 LUMA's existing Web Portal allows us to identify DG Interconnection cases returned to the developer for corrections. However, it does not provide a timestamp for when the application was then corrected. This capability must be added to the Web Portal's programming for precise tracking. LUMA's work order management system allows

tracking meter exchange scheduling and completion dates. This system produces a data extract that can be used to identify/flag cases that experienced meter exchange scheduling delays for reasons not attributable to LUMA. Until both these systems are capable of recording precise timestamps for activity completion, we suggest simply excluding the DG Interconnection cases in the program's overall Average Duration calculation, so they do not unfairly skew the assessment of LUMA's performance.

Q17. What data, if any, did you examine to develop the NEM Tariff Activation Duration performance metric?

A17. I calculated the Average Duration for NEM Tariff Activation, using data from LUMA's central NEM Case Tracking Spreadsheet (Exhibit A) for FY22, corresponding to the first 12 months of LUMA's operations. This Case Tracking Spreadsheet is a list that contains records of each DG Interconnection case in progress and completed. Cases are manually entered into this list once they are validated. The Billing team then works from this list to issue meter exchange work orders and switch customer accounts to the NEM tariff. The Billing team then manually records the date the meter change was completed, and the project was finalized. It should be noted that, since this is currently a manual data entry process, there are occasional data entry errors in populating the fields. Additional analysis was conducted to identify these data entry errors and exclude them from the Average Duration for FY22, to improve the accuracy of the statistic and prevent further skewing the results.

I also reviewed the Quarterly Interconnection Report filings in Case No. NEPR-MI-2019-0016. These Quarterly Reports present various statistics related to the NEM program. One of these Quarterly Report metrics is similar to the Average Duration metric proposed here. In the Quarterly Report it is referred to as the "*Average time between when the customer notifies the Authority of their request for interconnection and inclusion of their distributed generation ("DG") system into a net metering program and the time when the net metering agreement is reflected in the customer's account.*" The Quarterly Report metric differs in that it only averages the cases that were filed and completed in the quarterly reporting period. Whereas the Average Duration for NEM Tariff Activation metric presented here averages all the cases completed during the year, regardless of when they were filed.

Q18. What was the Average Duration for NEM Tariff Activation for FY 2022?

A18. The Average Duration for NEM Tariff Activation for all the projects completed in FY22 was approximately 92 days. This calculation is provided in Table 1 of the Summary tab in Exhibit A. However, this statistic is skewed by the large number of DG Interconnection cases that LUMA inherited in the backlog, many of which had been waiting several years for activation. To correct this, an additional metric was calculated in Table 1 that only includes cases that arrived in FY22 and were completed in FY22, resulting in an average of approximately 53 days. It should be noted that this average duration of 53 days is still skewed by the backlog, as LUMA prioritized activation of the oldest cases first, which means the new cases that arrived in FY22 waited longer in the queue while LUMA processed cases preceding them in the backlog.

Q19. How did LUMA set the target threshold and minimum performance level?

A19. We propose 30 days as the minimum performance level, to align with the statutory requirements stated in Act 114-2007. During the first quarter of FY23, the Average Duration for Activation was approximately 33 days (*see* Table 1 of Exhibit A), representing the current program performance level. However, this duration exceeds the minimum performance level. LUMA expects this average to continue decreasing in FY23, though not at the rate seen in FY22. Therefore, LUMA proposes a target of 28 days, which is more aggressive than the current performance (33 days) and the minimum performance level (30 days), while facilitating a reasonably achievable rate of improvement of the resources and IT systems available.

Q20. Why is LUMA presenting a performance metric on Average Duration for NEM Tariff Activation?

A20. This metric is presented in attention to the orders issued by this Energy Bureau in this proceeding. It was chosen because it directly measures LUMA's performance related to NEM service activation. Intervenors have presented other metrics in this proceeding, such as the total capacity (MWh) of DG installed. However, LUMA does not install DG systems or direct the installation of DG systems, so this metric does not measure LUMA's performance but that of other market actors. LUMA's primary role in the DG market is to expeditiously activate NEM service on customer bills so that customers are compensated for their exported energy. The NEM tariff provides an incentive to customers to install DG systems, but if customers must wait a long time to receive the NEM tariff, this can act as a

barrier to customer adoption. Thus, the most effective way that LUMA can currently support customer adoption of DG is to activate the NEM tariff as expeditiously as possible, ensuring each application meets regulatory and technical requirements. The degree to which LUMA is performing this service is indicated by the metric we have presented, which measures the average time it takes for LUMA to perform the necessary actions for activating the NEM tariff for DG customers.

Q21. What factors has LUMA considered to meet the targets for the Average Duration for NEM Tariff Activation performance metric?

A21. Over the past several years, there has been a steadily increasing number of new NEM applications submitted to the utility each month, which makes it difficult to predict and control program performance. Expeditiously processing such a high volume of applications requires active program management, sophisticated IT systems, and sufficient staff assigned to processing applications. Without these in place, the program will have difficulty activating enough applications each month to keep pace with new incoming applications, potentially resulting in a backlog. None of these conditions were in place upon LUMA's service commencement, which is the reason LUMA inherited a backlog of over 8,000 customer applications, many of which had been waiting for over two years for NEM service.

LUMA has made several improvements to the program since Commencement, which will prepare the program to meet the performance targets suggested. We have:

- Created a new centralized team dedicated to managing the NEM program.
- Developed a new streamlined process for expediting project applications.
- Increased staffing levels assigned to key functions related to activating NEM service using the expedited process.
- Made improvements to the DG customer application web portal.
- Began developing a new web portal to streamline application processes further.

These improvements resulted in connecting over 27,000 customers to the NEM tariff in FY22, which was significantly faster than the previous year. LUMA will continue to make program improvements to further reduce the Average Duration for NEM Tariff Activation in FY23. The expedited project application process is still very manual and labor-intensive. The rate of incoming applications is also highly variable month-to-month, which makes it

difficult to plan for the program's resource needs. It is expected that the new customer application portal, which will be released in FY23, will further automate and streamline the application validation processes, and will allow for more detailed tracking of the duration of each individual process involved in activating the NEM tariff for customers.

Q22. Please describe the performance metric on Energy Savings as a Percent of Total Energy Sales.

A22. This metric tracks the annual energy savings achieved by LUMA's Demand Side Management (DSM) Programs, pilots, and initiatives. Section 2.02 of the Regulation for Energy Efficiency, Regulation No. 9367, establishes planning targets for annual energy savings to be acquired during each year of the Transition Period Plan of at least 0.1 percent in the first year and at least 0.25 percent in the second. As per industry convention, these energy savings targets are presented as a percent of annual energy sales. The annual targets are designed to facilitate a reasonable ramp-up of program performance during the early years of program delivery. It should be noted, however, that these targets cannot be achieved until the programs are fully funded through a cost-recovery mechanism such as the Energy Efficiency Rider.

Q23. What is the objective of this performance metric?

A23. To incentivize the utility to achieve energy reduction targets for DSM programs.

Q24. Please describe the methodology for the performance metric on Energy Savings as a Percent of Total Energy Sales.

A24. The metric is calculated as the total gross energy savings achieved (MWh) by LUMA's DSM programs divided by the total forecasted energy sales (MWh) during the period. It is important to note that the targets are based on forecasted energy sales. This is because the programs and budgets needed to achieve these targets are determined prior to the beginning of each year. The actual energy sales may vary from the forecast; however, the programs and their budgets will not be able to fluctuate up or down mid-year to align with fluctuations in actual sales during the year.

Q25. How was the Energy Savings as Percent of Total Energy Sales metric developed?

A25. This is the industry standard metric for tracking energy savings performance from traditional ratepayer-funded DSM programs. LUMA considered the Regulation for Energy Efficiency that establishes planning targets for energy savings (as a percent of sales) during

each year of the Transition Period Plan of at least 0.1 percent in the first year and at least 0.25 percent in the second.

LUMA considered that there is a high degree of uncertainty about market readiness for DSM programs, making it difficult to forecast program performance accurately. Nonetheless, this metric was developed and selected for two reasons. The metric was selected to minimize program administration changes, recognizing that this metric will be adopted after the Transition Period. Energy savings as a percent of sales is the standard metric used to track the performance of utility-sponsored, ratepayer-funded DSM incentive programs. The methodologies and resources needed to confidently estimate energy savings resulting from DSM programs (e.g., Technical Reference Manual, EM&V protocols) are widely available and well-developed. LUMA recommends using this metric as the primary metric to leverage these highly developed industry resources, protocols, and standards, rather than developing protocols from scratch for a different metric. It is best to begin developing systems around this performance metric from the outset rather than shifting course.

Q26. Is LUMA able to set a baseline for the Energy Savings as Percent of Total Energy Sales performance metric?

A26. The baseline for this metric should reflect the level of energy savings historically achieved by DSM programs administered by the utility. However, the utility has never delivered DSM programs; therefore, the baseline is currently 0%.

Q27. Is LUMA able to set targets for the Energy Savings as Percent of Total Energy Sales performance metric?

A27. The first and second-year targets for this metric (0.1% and 0.25%) may be set at a level aligned with the Regulation for Energy Efficiency and are designed to facilitate a reasonable ramp-up of program performance during the early years of program delivery.

It should be noted that LUMA's ability to achieve these performance targets requires a stable, predictable, and dedicated source of funding through a rate rider or surcharge. LUMA has designed its Transition Period Plan for EE/DR to achieve the level of energy savings specified in the proposed targets (0.1-0.25%). However, these programs are not fully funded to the level required to meet these targets, as the EE Rider has yet to be initiated. We are confident that LUMA has developed an achievable plan for meeting the

targets specified for this metric once a stable, consistent EE Rider fully funds the programs.

Q28. Please describe the performance metric on Peak Demand Savings as a Percent of Total Peak Demand.

A28. This metric tracks the annual peak demand savings achieved by LUMA's Demand Side Management (DSM) Programs, pilots, and initiatives. As per industry convention, these demand savings targets are presented as a percent of annual peak demand.

Q29. What is the objective of the performance metric on Peak Demand Savings as a Percent of Total Peak Demand.?

A29. To incentivize the utility to achieve peak demand reduction targets for DSM programs.

Q30. Please describe the methodology of the performance metric on Peak Demand Savings as a Percent of Total Peak Demand.

A30. The metric is calculated as the total gross annual peak demand savings achieved (MWh) during the year, divided by the total forecasted peak demand (MWh) for the year. It is important to note that the targets are based on forecasted peak demand. This is because the programs and budgets needed to achieve these targets must be determined prior to the beginning of each year. The actual peak demand may vary from the forecast; however, the programs and their budgets will not be able to fluctuate up or down mid-year to align with fluctuations in the actual peak demand during the year.

Q31. How was the Peak Demand Savings as a Percent of Total Peak Demand performance metric developed?

A31. This is the industry standard metric for tracking the performance of peak demand savings from traditional ratepayer-funded DSM programs.

Q32. Is LUMA able to set a baseline for the Peak Demand Savings as a Percent of Total Peak Demand performance metric?

A26. The baseline for this metric should reflect the level of peak demand savings historically achieved by DSM programs administered by the utility. However, the utility has never delivered DSM programs; therefore, the baseline is currently 0%.

Q33. Is LUMA able to set targets for the Peak Demand Savings as a Percent of Total Peak Demand performance metric?

A33. The annual targets may be set to facilitate a reasonable ramp-up of program performance during the early years of program delivery. It should be noted that LUMA's ability to

achieve these performance targets requires a stable, predictable, and dedicated source of funding through a rate rider or surcharge. LUMA has designed its Transition Period Plan for EE/DR to achieve the level of energy savings specified in the targets proposed here. However, these programs are not currently funded to the level required to meet these targets, as the EE Rider has yet to be initiated. We are confident that LUMA has developed an achievable plan for meeting the targets specified for this metric, once a stable, consistent EE Rider fully funds the programs.

Q34. Does this complete your testimony?

A34. Yes.

ATTESTATION

Affiant, Mr. Lee Wood, being first duly sworn, states the following:

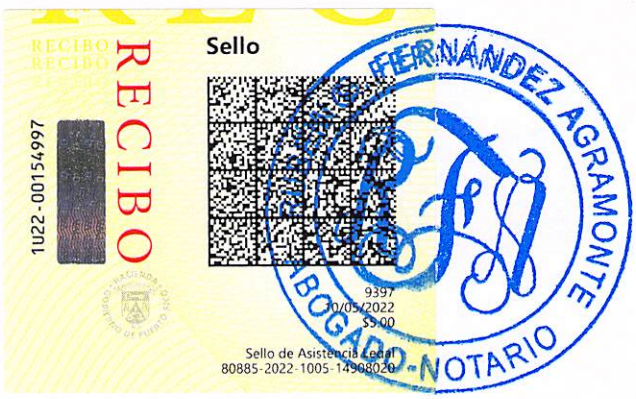
The prepared Direct Testimony constitutes my direct testimony in the above-styled case before the Puerto Rico Energy Bureau. I would give the answers set forth in the Direct Testimony if asked the questions that are included in the Direct Testimony. I further state that the facts and statements provided herein are my direct testimony and to the best of my knowledge are true and correct.

Affidavit No. 1059

Acknowledged and subscribed before me by Mr. Lee Wood, in his capacity as Director, Business Transformation of LUMA Energy, of legal age, married, and resident of San Juan, Puerto Rico who is personally known to me.

In San Juan, Puerto Rico, this 28th day of October, 2022.

Notary Public



Direct Testimony

Exhibit A, excel spreadsheet