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

IN RE: PERFORMANCE METRICS TARGETS FOR LUMA ENERGY SERVCO, LLC

CASE NO.: NEPR-AP-2020-0025

SUBJECT: INDEPENDENT CONSUMER PROTECTION OFFICE'S WRITTEN TESTIMONY

Direct Testimony of

GERARDO COSME NÚÑEZ, PE, CPI

Independent Consumer Protection Office ("ICPO")
November 17, 2021

TABLE OF CONTENTS

I. INTRODUCTION

A. WITNESS IDENTIFICATION

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

A. My name is Gerardo Cosme Núñez, professional engineer, and engineering consultant with business address in Dorado, Puerto Rico.

Q. For the record, could you mention some of your educational and professional qualifications, experience and certifications?

A. I am a professional engineer with 29 years of experience in the energy industry. I have provided services in regulatory, technical and practical matters, both locally and internationally. I also worked as a consultant on energy matters for the Energy Affairs Administration currently known as the Puerto Rico Energy Public Policy Program (PPPO). I am an active member of various associations such as the Puerto Rico Chamber of Commerce and the Puerto Rico Association of Engineers and Land Surveyors. Currently, I offer technical consultant services on such matters to the Independent Consumer Protection Office ("ICPO").

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

A. I appear and testify on behalf of the ICPO.

Q. Have you previously provided testimony before the Energy Bureau?

A. Yes.

Q. What is the objective of your testimony?

A. The objective of my testimony is to comply with the duties imposed to the ICPO in Act 57-2014, known as *Puerto Rico Energy Transformation and RELIEF Act*, as amended, which includes defending and advocating for the interests of customers, in all matters brought before the Energy Bureau, with regard to the quality of the electric power service, resource planning, public policy, and any other matter of interest for customers.

Q. What documents or references were used to prepare your testimony?

A. LUMA Motion Submitting Redline Version of the Revised Request for Approval of the Revised Annex IX to the OMA, dated on August 20, 2021; Resolution and Order of Case NEPR-MI-2019-0007-Final Performance Baseline Data and

Benchmarks dated on May 21, 2021; LUMA Motion-Exhibit 1-Resumen de Métricas, dated on September 20, 2021, case NEPR-MI-2019-0007; LUMA Motion Submitting Responses to Attachment A of May 4th Resolution and Order, Case NEPR-MI-2021-0007 dated on May 11, 2021; Resolution an Order- Findings on Performance Baseline data and analysis and request for additional information, case NEPR-MI-2019-0007, dated on April 8, 2021, Direct testimonies of Don Cortez, Abner Gomez, and Terry Tonsi. Responses to PREB ROI's 1 thru 8, including supplementary 5 and 6, Responses to LECO ROI's 1 thru 3, including supplementary 4 and Responses to ICPO ROI 1.

Q. On what issue or subject would you be testifying?

A. On Technical and Financial Metrics and new proposed renewable energy related incentive performance metrics.

B. SUMMARY OF DIRECT TESTIMONY

Q. Which specific performance metrics will you be testifying about?

A. I will be testifying about what I consider outcome-based index performance metrics. These are SAIDI, SAIFI, and CAIDI, and the proposed metrics to be deferred by LUMA of MAIFI, and CEMIn. I will also testify about the performance metrics that I consider part of what can be action performance metrics in nature, namely on revised OMA Annex IX, which are the following:

- Distribution line inspections & targeted corrections
- Transmission line inspections & targeted corrections
- T&D substation inspections & targeted corrections

All these proposed performance metrics can be cataloged as technical in nature.

In addition, I will be testifying regarding the financial performance metric of Reduction of Network Losses, which is a proposed metric to be deferred by LUMA, and, although listed as a financial metric, it can be considered as a technical performance metric as well.

Regarding financial metrics, I will be testifying on Operating Budget, Capital Budget – Federally Funded, and Capital Budget – Non-Federally Funded.

Then I will be further testifying about what LUMA identify as performance metrics related to Mayor Outage Events, "MOE". I will end my testimony with the proposed new metrics related to utility scale renewable energy generation, as well as to distributed renewable energy generation project completion beyond net metering as part of LUMA's T&D responsibilities.

Q. What comments do you have regarding SAIFI, SAIDI, and CAIDI incentive performance metrics?

A. To begin with, I agree with LUMA's arguments related to SAIFI and SAIDI, specifically, that it should include all events from transmission lines, distribution lines, and substations, as opposed to PREPA's method of only counting distribution line system events. However, these events (transmission, distribution, substations occurrences) should be reported individually in order to provide useful information on those components separately for improved planning. In addition, I agree with the retirement CAIDI metric, basically for the same reason Mr. Don Cortez stated in his testimony, that CAIDI metrics may be misleading real performance on grid improvement measurement. This is even more relevant on a grid that is about to go through an expected extensive transformation, as ours is.

Q. What comments do you have regarding the deferred CEMIn, MAIFI, and Reduction of Network Line Losses incentive performance metrics?

A. LUMA proposes, as stated in Mr. Cortez' testimony, to defer CEMIn, MAIFI, and Reduction of Network Line Losses metrics to the fourth year of the contract, due mainly to a lack of data quality in the current Outage Management System and the Energy Management System. To substitute these deferred metrics, LUMA proposes the following three alternatives performance metrics not included in the original OMA Annex IX:

- Distribution line inspections & targeted corrections
- Transmission line inspections & targeted corrections
- T&D substation inspections & targeted corrections

If they (LUMA) do not feel sure of providing reliable data regarding those metrics, its fair for them to defer any compensation or penalty related to it. I do not agree with the alternatives, three metrics, related to T&D inspections proposed by LUMA to substitute CEMIn, MAIFI and Reduction of Network Line Losses metrics.

Q. Why do you disagree with the substitution of CEMIn, MAIFI and Network Line Losses performance metrics with the T&D lines and substation inspections and targeted corrections as proposed in the revised OMA Annex IX?

A. Distribution line inspections & targeted corrections, transmission line inspections & targeted corrections, and T&D substation inspections & targeted corrections are three new metrics that were not included in original Annex IX OMA. These proposed metrics are derivatives of the System Remediation Plan, which was conditionally approved by the PREB on June 23, 2021, as bi-monthly reports that Lumas must file with them. The System Remediation Plan states what needs to be

done and how to do it applying the operational budget as well federal and non-federal capital budget to T&D infrastructure in order to increase reliability and resilience in the T&D system.

Therefore, LUMA, in order to achieve better performance metrics numbers in general, must ensure the correctness of the inspections done by the company or companies LUMA will hire to do them. Inspection data will be used to develop targeted correction plans carried out on within budget that can result in better performance metrics numbers such as SAIDI, SAIFI, CEMI, and MAIFI. An inspection by itself is just an integral part for plan development. Inspections alone without actions taken by a developed plan will not lead to any outcome. Likewise, plans that are not executed will not render results, either positive or negative, to be perceived by customers or to be measured by the PREB.

Inspections will indeed help at the end of the process. That is supported for example on pages 17, 18 and 21 of Exhibit 1 entitled LUMA's Terms of Service (Liability Waiver) Docket ID: NEPR-MI-2021-0007" of LUMA's motion of May 11, 2021, entitled "MOTION SUBMITTING RESPONSES TO ATTACHMENT A OF MAY 4th RESOLUTION AND ORDER", which states the following for the "Potential Liability" column for Distribution Line Inspection and Transmission Line Inspection:

"...Also reduces the likelihood of claims from consumers for losses or damages related to power failure, outages, stoppage, interruption, variation, change, fluctuations, irregularity, suspension, impairment, diminution, change in characteristics, or other quality issues, including claims for business interruption, equipment damage, among other losses or damages."

Therefore, I recommend that the PREB do not accept those sets of new proposed metrics. The improvement in T&D infrastructure made by concrete actions taken, not inspections or plans, will be reflected in SAIDI, SAIFI CEMI and MAIFI performance metrics.

Q. What is your opinion regarding Operating Budget, Capital Budget - Federally Funded and Capital Budget - Non-Federally Funded incentive performance metrics?

A. I think they are incomplete.

Q. Why do you think they are incomplete?

A. All three financial metrics, Operating Budget, Federally Funded Capital Budget, and Non-Federally Capital budget performance metrics, should include more than just the ability of LUMA to stay within budget. It should include an alignment

with the specific investments or actions proposed or tied to the particular budget. LUMA may end, for example, earning incentive points by just staying within budget because of deferred or omitted investments or actions related or tied to that approved budget. As an example, the Vegetation Management Plan, which is part of the System Remediation Plan, may be partially deferred or cancelled in order to avoid going over budget. They will earn incentive points by being within budget, but no positive outcome will be perceived by consumers.

The alignment of the metric should be represented in terms of percentage of completion of the tied action proposed for such budgeted investment completed.

Regarding the Operational Budget metric, I am concerned that, in order to be within budget, which is covered only by the tariff, LUMA could make decisions related to operations focused on goals that may lead to a higher fuel and energy rider cost for consumers. I therefore propose that the Operating Budget incentive metrics that may be awarded to LUMA be contingent on the premise that no event, related directly to T&D, had occurred which had a direct impact on the rider's costs during the evaluated time period.

Q. What do you think about Major Outage Event "MOE" incentive performance metrics?

A. I'm opposed to this set of metrics because of the effort and resources required by LUMA and the government to track and evaluate these performance metrics during Major Outage Events, especially on critical and extended timeframe contingencies. In these extreme cases, I think all the available resources, that may not even be as much as could be required, would be better employed in managing the contingency itself. During contingencies, depending on their degree or severity, information or data may not be readily available, just like equipment or infrastructure, in working order, to do such tasks. I believe that the better incentive for an electric utility is to recover normal operational status as soon as possible in order to start providing services in order to produce the associated revenues.

Beside the objection of MOE metrics, I will further comment on the following areas covered by MOE metrics and listed in Mr. Terry Tonsi's testimony :

a. Downed wires
b. Damage assessment
c. Crewing
d. Estimated time of restoration (ETR)
e. ETR accuracy
f. Municipality coordination
g. Municipal emergency operation center (EOC) Coordination
h. Utility coordination

i. Safety-worker supervision related
j. Mutual assistance

All the aforementioned major areas covered by MOE proposed performance metrics, with the exception of Estimated Time of Restoration(ETR) and ETR accuracy, are either inspection or planning related steps to cope with MOE. Positive or negative outcome of these steps will be ETR and ETR accuracy. Therefore, I recommend that the PREB only approve an MOE performance metric based on ETR and ETR accuracy of MOE occurrence. This metric, however, should be for monitoring purpose only, not for an incentive metric.

Q. What incentive performance metrics do you propose related to utility scale renewable energy generation?

A. Procurement of utility scale renewable energy generation, including VPP's, which are a hybrid between distributed and utility scale generation, is currently PREPA's responsibility. However, integration to the grid of all renewable generation, as required by the RPS, is an integral part of the IRP, which includes hosting capacity capability of the transmission and distribution system to get in line all that generation capacity with the minimum curtailment possible to maximize renewable energy utilization. It is LUMA's responsibility to provide adequate transmission and distribution service to that purpose with the best attainable economic dispatch. Therefore, the proposed incentive performance metrics for renewable energy apply for utility scale generation only, and in the especial case of VPP's related to dispatch, not generation itself, that will be better managed as distributed generation, which indeed they are, and I will propose related incentive performance metrics as well. The proposed incentive performance metrics for utility scale renewable energy generation are the following:

1) Generation from RPS-eligible PPOA's by percent of sales. The baseline is 3% of FY2020 and proposed Benchmark of 40% by 2025, including DER's. This metric is being currently reported by LUMA.

2) Overall Average Capacity Factor of RPS Eligible Capacity in terms of percentage

3)Overall Number of Curtailed Hours from RPS Eligible Capacity.

These metrics are a derivation of the metrics listed in Attachment C, "Metrics not required for Quarterly Reporting" and Attachment D, "New Metrics to be Reported" of PREB Order and Resolution, case NEPR-MI-2019-0007 dated on May 21, 2021, with subject "Final Performance Baseline data and Benchmarks".

Q, What performance metrics do you propose related to distributed renewable energy generation?

A. The incentive performance metric related to distributed renewable energy generation that I propose is the total installed distributed photovoltaic capacity in terms of MW with a FY2020 Baseline of 170.2 kW of complete commissioned projects. This metrics is part of the metrics listed in Attachment A "Metrics with Baselines and Benchmarks" of PREB Order and Resolution, case NEPR-MI-2019-0007 dated on May 21, 2021, with subject "Final Performance Baseline data and Benchmarks".

For reference, the number of photovoltaic distributed generation installations per year with a FY2020 Baseline of 573 facilities should be included as an additional metric. This metric in particular should be monitored, but it should not be part of the proposed incentive performance metrics. The number of installations must be of completed commissioned projects, not just net metering approved projects. This metrics is also part of the metrics listed in Attachment A "Metrics with Baselines and Benchmarks" of PREB Order and Resolution, case NEPR-MI-2019-0007 dated on May 21, 2021, with subject "Final Performance Baseline data and Benchmarks".

Q. What is your argument to propose this incentive performance metric?

A. Performance metric incentives in electric utilities are set to motivate them to perform better, not to just achieve law and regulation compliance. In this case for example, Act 17-2019 clearly established a required time of no more than 30 days to provide NEM in their billing to prosumers with DER's of 25 kW or less. Regarding that legal requirement, LUMA opted to establish an alternative expedited process through an Excel file, which is external to the current project registration portal. LUMA is carrying out this action to comply with Act 17-2019 to provide prosumers that have qualified distributed generation projects of 25 kW or less with NEM in 30 days or less.

However, as is stated on the cover page of the LUMA Excel expedite alternative process file, for projects that had reached NEM:

"These cases have gone through an external process from the portal where the client will be receiving the benefit of net metering in their bill. These cases will remain open in the portal while LUMA conclude the study process of the interconnections' impacts to the grid."

This means that an unknown number of projects of 25 kW or less in capacity, including projects over 25 kW, not included in the recently created Excel file by LUMA, may remain for an indefinite amount of time in an undetermined incomplete or unfinished status. Therefore, the progress of renewable portfolio standard coming from net metering projects will be uncertain, along with the conditions of the distribution and transmission system, and their respective

hosting capacities. This situation may be exacerbated as more projects in shorter periods of time will be expected to be in the pipeline, and a grid load profile being complicated by the emergent electric cars market. If multiple customers will experience that their rooftop solar systems will not be finally approved by LUMA after a long period of time, even if it was in NEM program, defection from the grid may increase, as battery technology improves in terms of costs. This situation clearly goes against the Act17-2019 goal that, in addition to providing NEM for consumers or prosumers in this case of renewable energy systems of 25 kW or less, also has an established RPS with firm percentage numbers and dates for compliance.

DER's in the transmission and distribution system is part of the renewable portfolio standard of Act 17-2019 and LUMA is in charge of managing those interconnections. This is why I propose to establish a new incentive performance metric on finished or closed projects in any scale allowed for NEM. This metric is not to incentivize RPS compliance through DER's but to accelerate the rate of DER's project completion. One important thing to keep in mind is that a finished or closed project should be defined as a project that LUMA states or certifies that all study processes of the interconnection impact to the grid are completed or simply declared as not necessary.

The proposed performance metric will measure increments in installed capacity, not number of prosumers in net metering in order to align with the RPS purpose. This performance metric has to be in place as soon as possible since RPS requirements are active as today. This proposed metric will incentivize at the same time more prosumers to be part of the grid as trust is developed by fast and steady adoption of DER's is shown by LUMA.

Q. Is there any other comment you may want to cover regarding your testimony?

A. No.

Q. Is this testimony firm and final?

A. This testimony is neither firm nor final. We reserve the right to complement this testimony through a supplemental written testimony as merit or opportunity arises and the deliberative process allows it.

II. SWORN STATEMENT

I GERARDO COSME NÚÑEZ of legal age, married and resident of Dorado, PR, affirm that the information here-transcribed represents my direct testimony as deponent in the subject case. I affirm that I will provide the same responses described in the direct testimony if the questions are posed, and, that to my best knowledge and belief, theses expressions are true and correct.

Gerardo Cosme Núñez, PE, CPI

Affidavit Number: -2477-

SWORN AND SUBSCRIBED before me by Gerardo Cosme Núñez, of the aforementioned personal circumstances, identified by drivers license number PR 1417908. In San Juan, Puerto Rico, this 17 of November 2021.

III. CERTIFICATION OF FILING AND SERVICE

I CERTIFY that on November 17, 2021 a copy of this Written Testimony was notified by electronic mail to the attorneys for PREPA, Joannely Marrero-Cruz, jmarrero@diazvaz.law; and Katiuska Bolaños-Lugo, kbolanos@diazvaz.law, the attorneys for Luma Energy,LLC and Luma Energy SevCo, LLC, Margarita Mercado Echegaray, margarita.mercado@us.dlapiper.com and Yahaira De La Rosa Algarin, yahaira.delarosa@usdlapiper.com 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 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, notificaciones@bufete-emmanuelli.com rstgo2@gmail.com, pedrosaade5@gmail.com jessica@bufete-emmanuelli.com; rolando@bufete emmanuelli.com.

ICPO
✉268 Hato Rey Center,
Suite 802
San Juan, P.R. 00918
☎787.523.6962

s/Hannia B. Rivera Díaz
Hannia B. Rivera Díaz, Esq.
Director
hrivera@jrsp.pr.gov
RUA 17,471