

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

**IN RE: REGULATION OF THE
RENEWABLE ENERGY CERTIFICATE
MARKET AND COMPLIANCE WITH THE
PUERTO RICO RENEWABLE ENERGY
PORTFOLIO**

CASE NO.: NEPR-MI-2021-0011

SUBJECT: LUMA's Comments to Proposed Regulation

NEPR

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MOTION SUBMITTING COMMENTS TO PROPOSED REGULATION

TO THE PUERTO RICO ENERGY BUREAU:

COME NOW, LUMA ENERGY, LLC as Management Co., and **LUMA ENERGY SERVCO, LLC** (collectively, LUMA), through the undersigned legal counsel and respectfully state and request the following:

On October 21, 2021, this Puerto Rico Energy Bureau of the Public Service Regulatory Board (“Energy Bureau”) issued a Resolution (the “October 21 Resolution”) notifying of a Proposed Regulation of Renewable Energy Certificates (“REC”) and Compliance with the Puerto Rico Renewable Energy Portfolio (the “Proposed Regulation”) and of its intent to publish a notice of the rulemaking process for the Proposed Regulation in a newspaper of general circulation. *See* October 21 Resolution at pp. 1-2. The Energy Bureau also informed that the public would have thirty (30) days from the publication of the latter notice- that is, until November 20, 2021, to submit comments regarding the Proposed Regulation. *See id.* at p. 2. The Energy Bureau included the text of the Proposed Regulation as an attachment to the October 21 Resolution.

With this Motion, LUMA respectfully submits its Comments to the Proposed Regulation. *See* Exhibit 1.

LUMA also hereby requests the Energy Bureau to schedule a public hearing or provide an alternative forum such as stakeholder workshops to ensure the most effective and comprehensive public participation and engagement in this rulemaking proceeding. Although, as noted in the October 21 Resolution, the Energy Bureau provided an opportunity for interested parties and the public to provide written comments to a preliminary draft of the Proposed Regulation prior to commencing this rulemaking proceeding, the Energy Bureau did not hold any stakeholder workshops or technical conferences that would have allowed for an exchange of ideas and more effective discussion of any potential issues related to the Proposed Regulation.

Act 38-2017, as amended (“Act 38”), provides, among others, that agencies may, at their discretion, schedule a public hearing in their rulemaking proceeding. *See*, Act 38, Section 2.3; 3 L.P.R.A. §9613. Hence, the Energy Bureau has the discretion to schedule a public hearing in this proceeding. In addition, the scheduling of this public hearing by the Energy Bureau would be in furtherance of the energy public policy established under Act 17-2019, as amended (“Act 17”) “[t]o promote transparency and citizen participation in every process related to electric power service in Puerto Rico”. *See* Act 17, Article 1.5(10)(c); 29 L.P.R.A. §1141d(10)(c).

The Proposed Regulation is of particular importance given that it establishes a framework for RECs that is new in Puerto Rico. Other jurisdictions have implemented use of RECs, and LUMA in Exhibit 1 summarizes key lessons learned from the use of RECs in other jurisdictions. Implementation in Puerto Rico also requires additional consideration because the transmission and distribution system at this time is in a fragile state, there are currently strong indicators of insufficient resource adequacy, and the reliable and cost-effective integration of renewables has several specific technical challenges. Finally, the sector model being implemented in Puerto Rico

defines specific responsibilities to the transmission and distribution operator (in the Proposed Regulation referred to as the Contractor of the transmission and distribution grid). Therefore, the model from another jurisdiction may not necessarily be adequate for Puerto Rico.

In addition, as explained in the attached comments, the provisions of the Proposed Regulation, could have a significant impact on electricity rates if the RECs are set at a high value. This could also occur if PREPA's costs to meet the Renewable Energy Portfolio are high.

For these reasons, it is important to have a more active engagement with stakeholders and the general public regarding the Proposed Regulation, including the potential effects of its implementation as currently drafted.

WHEREFORE, LUMA respectfully requests that the Energy Bureau **accept** and **consider** this filing of LUMA's comments to the Proposed Regulation and schedule a public hearing in connection with the Proposed Regulation.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 20th day of November 2021.

We certify that we filed this motion using the electronic filing system of the Puerto Rico Energy Bureau.



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Exhibit 1

LUMA's Comments to Proposed Regulation



Renewable Energy
Certificates Market
Regulation and Puerto
Rico Renewable Energy
Portfolio Compliance

NEPR-MI-2021-0011

November 20, 2021

1.0 Introduction

LUMA is pleased to respond to the Puerto Rico Energy Bureau's request for comments to the proposed regulation outlining the requirements for documentation, registration, verification, and retirement of Renewable Energy Credits (RECs). LUMA submits this document and provides below: 1) the lessons learned from REC regulation, pricing and impacts in other jurisdictions; 2) specific comments on the text of the proposed regulation; and 3) an estimate of potential future costs of RECs purchases in Puerto Rico.

2.0 Lessons Learned

LUMA has outlined the following lessons learned from three decades of REC regulation in other jurisdictions.

1. **Regulations on Renewable Energy Credits ("REC") can provide a transparent accounting method for measuring compliance with Renewable Energy Portfolio Standards ("RPS").** A transparent and reliable method for tallying the energy that contributes towards meeting RPS goals accomplishes a public policy goal.
2. **REC regulations should minimize economic impacts on utility customers.** REC costs are an additional variable cost of energy from renewable energy sources. As such in Puerto Rico they are currently added to any payments for energy made to renewable energy producers under Purchased Power and Operating Agreements (PPOAs). These costs are recovered by the utility through the Purchased Power Adjustment Clause of the customer rates approved by the Energy Bureau.

The cost of energy supply from generators comprises more than 60% of the total customer energy bill. The cost of energy produced in Puerto Rico is high compared to other U.S. jurisdictions. A large portion of that cost is derived from payments for imported fuel. Puerto Rico's condition as an island with no substantial indigenous fuel sources, coupled with other structural elements, serve to create additional costs for thermal generation absent in other markets.

In most of the U.S. (and indeed most of the world) renewable energy (primarily utility scale solar and/or wind) currently has the lowest Levelized Cost of Electricity (LCOE)¹ of all new installed sources. In many markets, the LCOE of installed energy from utility scale wind and solar is below the *marginal cost*² of some or all existing fossil fuel generation.³ In order to assure that Puerto Rican utility customers receive the benefits of new cost-competitive and renewable sources, great care should be taken to avoid increasing the costs to customers of new (or existing) energy sources. The costs of RECs are an additional cost that will be recovered through rates. That is: every dollar paid in REC cost is another dollar in rates. Increasing purchased power costs through additional REC costs

¹ Levelized cost of electricity (LCOE) refers to the estimates of the revenue required to build and operate a generator over a specified cost recovery period.

² Marginal cost of energy is the revenue required to operate one additional unit of energy. The marginal cost refers to variable costs and in thermal generation is generally equivalent to the additional cost of fuel used to produce an additional unit of energy plus any incremental actual operating costs (excluding depreciation or any fixed costs).

³ For comparative LCOEs of different technologies please see *Lazard's Levelized Cost of Energy Analysis*, October 2021. Available for download at <https://www.lazard.com/media/451905/lazards-levelized-cost-of-energy-version-150-vf.pdf>

has the same economic impact as additional fuel costs (recovered by the utility in the Fuel Adjustment Clause of the customer rates approved by the Energy Bureau).

3. **The renewable energy industry has various incentives for successful deployment and new renewable energy is very competitive economically with other sources. Therefore, there is no need to establish artificially high prices for RECs to augment existing revenue streams to energy producers.**

Renewable energy sources qualify for a number of federal and local tax incentives and other policy measures to increase returns to investors and, in general, lower their costs to consumers. In addition, distributed renewable generation in Puerto Rico specifically qualifies for Net Energy Metering (NEM) which provides additional incentives to customers. Currently, Tranche 1 of the Energy Bureau's Request for Proposals for renewable energy resulted in proposals totaling more than 1000 MW of renewable energy installations. There are 1000 or more new applications for NEM per month in Puerto Rico. In the period of July – September 2021, LUMA approved applications corresponding to approximately 35 MW of additional renewable energy. Also, there are billions of dollars of federal grants that currently are or will soon be available to customers for additional distributed generation. One example is the \$1.9 billion in Community Development Block Grant disaster recovery (CDBG–DR) funds already allocated by the U.S. Department of Housing and Urban Development to the Puerto Rico Department of Housing for enhanced or improved electrical power systems in Puerto Rico with a strong emphasis on residential rooftop solar. LUMA is actively supporting all of these efforts to increase renewable energy in Puerto Rico.

One of the primary policy goals of RECs is to spur additional renewable energy installation. In the current context of Puerto Rico, adding REC revenues to the already large list of incentives is at best duplicative. It is hard to see any incremental renewable energy development that is created by the additional REC revenues.

4. **Administratively determined values for RECs has historically created artificially high prices that are ultimately borne by customers. The value of RECs should be determined by the market.**

There are multiple examples from markets in the U.S. and Europe of administratively set prices that resulted in high costs. By setting an administratively determined price, policymakers and regulators run the risk of inadvertently creating an economic rent that is not justified by the benefit provided to society. In addition, prices that are not based on supply and demand, or a competitive process, may have the unintended result of incentivizing rent-seeking behavior. This is especially true in the absence of tradeable RECs that can be exchanged with outside economic actors that have a demand for these credits and place an economic value on them.

5. **A third-party administrator should track and report REC compliance to the regulator and recover actual costs.**

LUMA actively manages an account with the third-party administrator, North America Renewables Registry, to inventory the purchased RECs created by PPOA resources. Per the proposed regulation, LUMA would transfer RECs to the Energy Bureau for their eventual retirement.

3.0 Specific Comments on Proposed Regulation

SECTION §1.08.34 – DEFINITION OF RETAIL ENERGY PROVIDER

It is proposed that the minimum energy delivery threshold for a Retail Energy Provider (currently drafted in the proposed Regulation of Renewable Energy Certificates and Compliance with the Puerto Rico Renewable Energy Portfolio Standard (“Proposed Regulation”) as retail sale of greater than 50,000 MWh per year)) be reduced to 140 MWh per year. Reducing the threshold as proposed would ensure that wheeling assets and other significant retail energy providers are also subject to the RPS while excluding customers that have distributed generation.

The definition of Retail Energy Provider in the Proposed Regulation should also exclude any provider that is not responsible for the procurement of energy resources since this entity would not have the ability to take actions to increase renewable energy purchases in order to meet the RPS, if it were to be applied to it. LUMA is an example. In the case of LUMA, LUMA provides operation and maintenance services (“O&M Services”) in connection with the PREPA’s transmission and distribution assets (“T&D System”) as specified in the Puerto Rico Transmission and Distribution Operation and Maintenance Agreement effective June 22, 2020 (“T&D OMA”). LUMA does not own or operate any generation facilities, does not generate energy and does not have responsibility for the procurement of the renewable energy resources that will supply energy to the T&D System. The T&D OMA is specific as to LUMA’s O&M Services and also in what cases and under what circumstances LUMA is to act as agent of PREPA. LUMA also has certain duties as System Operator, and these are more fully described in the System Operation Principles. Procurement of new energy is not included in LUMA’s responsibilities either under the T&D OMA or the System Operation Principles.

PREPA or another entity should be deemed the Retail Energy Provider responsible for RPS compliance under the Proposed Regulation. LUMA respectfully states to this Energy Bureau that it would be contrary to equity for LUMA to be at risk of being subject to fines for noncompliance with the RPS, as per Section 1.16 of the Proposed Regulation, for activities LUMA does not control. In addition, doing so would potentially result in the imposition of a double set of fines, that is, to PREPA and to LUMA, a situation which could also result in an increase utility costs that could eventually be passed on to ratepayers. Retail energy providers in other jurisdictions, including in Texas and other states in New England, have responsibility for procurement of the energy that they sell to their retail customers. Those retail energy providers typically also set a price for the energy that they provide and assume the economic risk of any mismatch between the cost of energy that they purchase at wholesale (via contracts or a spot market) and the energy that they sell at retail to their customers. This is an owner’s risk as the retail energy provider typically takes title to energy and resells that energy. LUMA is not an owner, does not procure or assume responsibility for procurement, and neither purchases nor takes title to any energy.

Based on the above, LUMA respectfully requests that the definition of Retail Energy Provider in the Proposed Regulation be revised as indicated below (where the underlined text is added language and the text that is struck out is deleted). Please note that the revised definition included here and in other parts of these comments are being provided in an English translation of the regulation prepared by LUMA for purposes of internal review and the official Spanish version included in the Energy Bureau’s Resolution of October 21, 2021.

"Retail Energy Provider". - means the Authority (except for the Contractor of the T&D System as provided below) or any other Person that sells retail energy and that has sold more than ~~fifty thousand 50,000~~ 140 megawatt-hours (MWh) of electric energy to electric energy consumers in Puerto Rico during the preceding calendar year or that plans to sell such amount during the current year, excluding any such provider that does not generate or have control over the procurement of the energy resources it transmits or distributes. For purposes of determining whether a person is a Retail Energy Provider, the retail energy sales in Puerto Rico of any affiliate of such person shall be taken into consideration. An "affiliate" shall be deemed to be any company that controls or manages, is controlled or managed by, or is subject to common control or management by, a Retail Energy Provider. The term Retail Energy Provider does not include an Energy Producer whose energy is intended for resale, or a Renewable Energy Producer, or the Contractor of the T&D System so long as it does not generate or have control over the procurement of energy resources.

"Proveedor de Energía al Detal". — significa la Autoridad (con excepción del Contratante del Sistema de T&D según se dispone abajo) o cualquier otra Persona que venda energía al detal y que haya vendido más de ~~cincuenta mil 50,000~~ 140 megavatios-hora (MWh) de energía eléctrica a consumidores de energía eléctrica en Puerto Rico durante el año natural anterior o que proyecte vender dicha cantidad durante el año corriente, con excepción de aquellos proveedores que no generen o tengan control sobre la adquisición de los recursos de energía que transmiten o distribuyen. Para propósitos de determinar si una persona es un Proveedor de Energía al Detal, se tomarán en consideración las ventas de energía al detal en Puerto Rico de cualquier afiliada de dicha persona. Se considerará como "afiliada", cualquier compañía que controle o administre, sea controlada o administrada por, o esté sujeta a un control o administración común, por un Proveedor de Energía al Detal. El término Proveedor de Energía al Detal no incluye un Productor de Energía cuya energía está destinada a ser revendida, o un Productor de Energía Renovable, o el Contratante del Sistema de T&D mientras no genere ni tenga control de la adquisición de los recursos de energía.

It is also proposed that the following definition of "Contractor of the T&D System" be included as a separate definition from the definition of PREPA to be used in instances such as the above where PREPA and the Contractor have different roles or circumstances under the Proposed Regulation:

"Contractor of the T&D System" means those persons that enter into Partnership Agreements with respect to the "PREPA Transactions", as such terms are defined in Act 29-2009, as amended, known as the Public Private Partnerships Act, in connection with PREPA's transmission and distribution system.

"Contratante del Sistema T&D". – significa aquellas personas a las cuales se le otorguen Contratos de Alianza con respecto a Transacciones de la AEE conforme dichos términos se definen en la Ley 29-2009, según enmendada, conocida como la Ley de Alianzas Público-Privadas, en relación con el sistema de transmisión y distribución de la Autoridad.

SECTION §2.02.C §3.03. A(B) – RECS GENERATED BY NET METERING RENEWABLES

As a general comment with respect to these provisions, LUMA would intend to set up a customer program to account for the RECs generated by net-metering renewables. The objective of this program is to maximize the accounting of such generation.

SECTION §2.05 – MINIMUM VALUE OF RECS

Section 2.05 of the Proposed Regulation provides that the Energy Bureau shall establish the minimum value of each REC and the minimum cost shall be based on a series of factors listed in the Proposed Regulation including the social cost of CO₂ emissions, among others. LUMA respectfully submits that the minimum value of RECs to be set by the Energy Bureau be a low, nominal value, such as 1¢, to avoid interfering with market determination of REC value. The value of RECs should be determined by the market. An unintended consequence of a higher minimum value is the risk of creating an economic rent that could be borne by customers. See Figure 4.1 for a representation of the market value of RECs over a thirty-year period on page 6. If the RPS policy works as designed and intended, abundant renewable resources will result (with most likely a surplus beyond RPS minimums) and market prices will respond more quickly than any administrative process can adjust.

The Energy Bureau has the authority to provide for an initial nominal value and allow the market to determine the future value, given that Act 82-2009, as amended ("Act 82"), does not require that the Energy Bureau establish the minimum values of CERs based on the series of factors listed in Section 2.05 of the Proposed Regulation. In fact, it establishes no parameters for the determination of value. Instead, Article 2.8 of Act 82 merely provides that the minimum value of each REC shall be the value established by the Energy Bureau at the time of the legal transaction, without hindering acquired rights prior to the enactment of Act 17-2019. It also provides that the Energy Bureau "may establish" a reasonable processing cost for each processed REC.

Based on the above, LUMA respectfully requests that Section 2.05 of the Proposed Regulation be revised as follows:

Section 2.05.- Minimum Value of CERs

A. ~~The initial minimum value of each REC will be 1¢. The Energy Bureau shall establish the minimum value of each REC by means of a Resolution. The minimum value of each REC shall be based on the social cost of Carbon Dioxide (CO₂) emissions, in dollars per metric ton of CO₂, as established by a reliable source identified by the Energy Bureau through a Resolution, and the CO₂ emission factor, in metric tons per MWh, corresponding to the electric generation industry, based on the most recent version of the Emissions and Generation Resource Integrated Database ("eGRID") of the U. S. Environmental Protection Agency. S. Environmental Protection Agency's Emissions and Generation Resource Integrated Database ("eGRID").~~

B. ~~The Energy Bureau shall review the minimum value of each CER at least every three (3) years. Once the Energy Bureau establishes the new value of the CERs, it shall become effective on January 1 of the calendar year following the date on which the Energy Bureau established the new value.~~

Sección 2.05.- Valor mínimo de los CERs

A. ~~El valor mínimo inicial de cada CER será 1¢. El Negociado de Energía establecerá el valor mínimo de cada CER mediante Resolución. El valor mínimo de cada CER se basará en el costo social de las emisiones de Bióxido de Carbono (CO₂), en dólares por tonelada métrica de CO₂, según establecido por una fuente confiable identificada por el Negociado de Energía mediante Resolución, y el factor de emisión de CO₂, en toneladas métricas por MWh, correspondiente a la industria de generación eléctrica, basado en la versión más reciente de la Base de Datos Integrada de Emisiones y Recursos de Generación (Emissions and Generation Resource~~

~~Integrated Database; “eGRID”) de la Agencia de Protección Ambiental de los Estados Unidos (U.S. Environmental Protection Agency).~~

~~B. El Negociado de Energía revisará el valor mínimo de cada CER al menos cada tres (3) años. Una vez el Negociado de Energía establezca el nuevo valor de los CERs, éste entrará en vigor el 1 de enero del año natural siguiente a la fecha en que el Negociado de Energía estableció el nuevo valor.~~

SECTION 3 – RPS COMPLIANCE

Section 3 of the Proposed Regulation governs matters related to compliance with the RPS. It is respectfully submitted that PREPA shall be able to recover all prudently incurred RPS compliance costs and penalties in rates. Neither Section 3 or any other Section of the Proposed Regulations or Act 82-2010 restrict PREPA's ability to do so. Furthermore, there is no other source for PREPA to recover compliance costs unless the Government of Puerto Rico determines that it will reimburse PREPA for such costs by direct transfer of funds. For avoidance of doubt, however, LUMA proposes that this be clearly indicated in the Proposed Regulation, by adding a new Section 3.10 stating the following:

Section 3.10. – PREPA Costs.

Nothing in this regulation shall be interpreted to preclude PREPA to recover all prudently incurred RPS compliance costs and penalties under this regulation as part of its rate-recoverable costs.

Sección 3.10.- Costos de la Autoridad.

Nada en este reglamento se interpretará como un impedimento a que la Autoridad recupere como parte de sus costos recobrables mediante tarifas los gastos y penalidades incurridos de manera prudente para cumplir con sus obligaciones respecto a la Cartera de Energía Renovable bajo este reglamento.

SECTION 3.04 – RENEWABLE ENERGY ACQUISITION REPORT; NON-FEASIBILITY OF ACQUIRING RECS

Section 3.03 provides for the annual filing of Renewable Energy Acquisition Report regarding, among others, the amount of renewable energy acquired during a year and reasons for not achieving the RPS. This report is to be included in the Annual Compliance Reports required under Section 3.06. LUMA proposes that a regulatory process be established in the Proposed Regulation whereby a Retail Energy Provider can preemptively request and receive an order or acknowledgement from the Energy Bureau regarding the non-feasibility of acquiring a sufficient number of RECs to meet the RPS. As part of this proposed process, the Retail Energy Provider would provide quarterly updates to the Energy Bureau to show progress toward the RPS targets. To that effect, LUMA respectfully requests that the following subsection D be included in Section 3.04:

Section 3.04. Report of Acquisition of Renewable Energy; non feasibility of acquiring RECs

A...

B. .

C. ...

- D. A Retail Energy Provider can, at its discretion, submit reports with the information indicated in paragraph A of this Section 3.04 on a quarterly basis in order to inform the Energy Bureau of the progress in meeting the RPS goals and any reasons or obstacles confronted or anticipated to be confronted to meet the RPS goals, as well as request any appropriate relief. The Energy Bureau may issue determinations regarding the requests in these reports as it may deem appropriate.

Sección 3.04.- Informe de Adquisición de Energía Renovable; no viabilidad de adquirir CERs

A. ...

B. ...

C. ...

D. El Proveedor de Energía al Detal podrá, a su discreción, someter informes con la información indicada en el párrafo A de esta Sección 3.04 trimestralmente para informar al Negociado de Energía sobre su progreso en lograr las metas de Cartera de Energía Renovable y cualquiera razones u obstáculos enfrentados para cumplir con tales de metas de la Cartera, al igual que solicitar el remedio apropiado. El Negociado de Energía podrá emitir determinaciones respecto a la solicitud en dichos informes que estime apropiadas. .

SECTION 4.04.A – JUSTIFICATIONS FOR NON-COMPLIANCE

Section 4.04A of the Proposed Regulation provides that the Renewable Energy Provider may justify its noncompliance with the RPS in the manner and for the reasons specified therein. LUMA respectfully proposes that an additional justification should be added to those listed in Section 4.04A to account for curtailments of renewable resources for system reliability reasons, which is a situation that is likely to currently occur given the conditions of the T&D System and until such time as the system is remediated. Although Act 82-2020 provides a list of allowable justifications for noncompliance. Accordingly, LUMA proposes the addition of the following subparagraph i:

Section 4.04. – Justifications for noncompliance

A. ...

...

i. Curtailments of renewable resources necessary to maintain transmission and distribution system reliability.

Sección 4.05. – Justificaciones por incumplimiento

A. ...

...

i. Reducciones de recursos renovables necesarias para mantener la confiabilidad del sistema de transmisión y distribución.

4.0 Estimate of REC Market Value

The graph below is a preliminary estimate of the value of RECs over a thirty-year period. If as expected, renewable energy grows in Puerto Rico, market prices will respond more quickly than any administrative process can adjust. The graph demonstrates the potential impact of REC pricing that is driven by an administrative minimum price determination.

In this graph, the orange area shows the amount of RECs that will be generated through Tranches 1-6 of the Energy Bureau order Requests for Proposal for renewable energy. The blue line shows the annual amount of RECs required to comply with the RPS. The grey area in between shows the remaining amount of RECs required to comply with the RPS. This simplified estimate is based on a constant total demand of 16,763 GWh per year.⁴ It is illustrative of impact that higher REC prices may have on customer rates.

⁴ Demand based on FY2022 forecast from PREPA Fiscal Plan for FY2022, certified by FOMB May 2021.

Figure 4.1 – Estimate of value of RECs Over 30 Year Period

\$4,157,000,000 is the cumulative value of the market through 2050
277,141,000 RECs will be required through 2050
\$2,770,000 at \$0.01 value
\$4,157,115,041 at a \$15.00 value

