

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

NEPR

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IN RE:

INTERCONNECTION REGULATIONS

CASE NO. NEPR-MI-2019-0009

**SUBJECT: Response to Urgent Request filed by SESA
on April 4, 2024**

RESPONSE TO URGENT REQUEST FILED BY SESA ON APRIL 4, 2024

TO THE PUERTO RICO ENERGY BUREAU:

COME NOW LUMA Energy ServCo, LLC and LUMA Energy, LLC (collectively “LUMA”), through the undersigned legal counsel, and respectfully state and request the following:

I. Relevant Procedural History and Background

1. On April 4, 2024, the Solar and Energy Storage Association of Puerto Rico (“SESA”) submitted to this Puerto Rico Energy Bureau of the Public Service Regulatory Board (“Energy Bureau”) a letter regarding an *Urgent Request Regarding LUMA’s Publication of a “Smart Inverter Settings Sheets- Technical Bulletin”/ NEPR-MI-2019-0009* (“SESA’s Request”). In it, SESA objects to the validity of a Technical Bulletin published by LUMA on April 1, 2024 on its official website titled “Smart Inverter Settings Sheets - Technical Bulletin” (the “Technical Bulletin”) (copy of which is attached to SESA’s Request and is part of the record of this proceeding) in which LUMA requires compliance by distributed generators with the Institute of Electrical and Electronics Engineers (IEEE) 1547-2018 standard for smart distributed energy resources settings. SESA also requests the Energy Bureau to intervene and grant the remedies described in SESA’s Request.

2. On April 9, 2024, LUMA filed a motion notifying the Energy Bureau that it was in the process of preparing a Response to SESA's Request which LUMA anticipated would be submitted to the Energy Bureau by April 18, 2024, and requested the Energy Bureau to provide LUMA until such date to submit its response.

3. On April 15, 2024, the Energy Bureau issued a Resolution and Order ("April 15th Order") granting LUMA and the Independent Consumer Protection Office ("ICPO") until April 20, 2024, to present their position regarding SESA's Request, as well as making other unrelated determinations.

4. On April 19, 2024, ICPO filed a motion to comply with the April 15th Order. *See Moción en Cumplimiento de Orden Emitida el 15 de abril de 2024* filed on April 19, 2024 ("ICPO Motion"). In it, ICPO indicates that it met with LUMA on April 3, 2024, to discuss the Technical Bulletin, and, in this meeting, it was informed that the Technical Bulletin has a prospective effect and that all Distributed Generation (DG) systems have the capacity of adjusting to the new specifications without the need to acquire additional components and/or equipment. *See* ICPO Motion on page 2. ICPO also indicates that it had a second meeting on April 18, 2024, with LUMA and other interested parties in which the Technical Bulletin was discussed, and questions that arose were clarified. *See id.* at page 3. ICPO also argues that: (i) they have a concern regarding LUMA technical bulletins being used to regulate areas that are regulated by the Energy Bureau or amend existing regulations; (ii) LUMA directives should be approved by the Energy Bureau to ensure compliance with public policy, law and regulations; and (iii) prior notification and participation of interested parties was necessary prior to the implementation of the Technical Bulletin. *See id.* at. Pages 3-4.

5. LUMA herein submits its response to the SESA Request in compliance with the April 15th Order.

II. Response to SESA's Request

6. The arguments in SESA's Request can be condensed as follows: (a) the process by which the Technical Bulletin was issued circumvents Act 38-2027, known as the Government of Puerto Rico Uniform Administrative Procedure Act (as amended "Act 38"), and "other procedures are required by law and as contained in previous [Energy Bureau Orders]" and it was unreasonable because the energy stakeholders cannot be expected to monitor LUMA's webpage daily for documents impacting regulatory standards (*see* SESA's Request, page 2); (b) the publication of the Technical Bulletin without the Energy Bureau's review and approval contradicts Act 57-2014, known as the Puerto Rico Energy Transformation and RELIEF Act (as amended "Act 57"), with respect to PREB's authority relating to interconnection regulations and technical requirements and its role to establish parameters and standards to guarantee efficiency and reliability (*see id.*); (c) in the Technical Bulletin "LUMA proposes to alter frequency response times and reactive power parameters, which are System Operation Principles" that must be reviewed by the Energy Bureau for approval (*see id.* at page 3); and (d) and the timeline to implement the IEEE 1547-2018 standard of June 1st, 2024, is impractical, "pose[s] practical implementation issues" and would create confusion and "practical implementation impossibilities" (*see id.* at pages 4-5). SESA requests that the Energy Bureau order LUMA to remove the Technical Bulletin from its website and have LUMA submit any changes to the IEEE 1547 standards to the Energy Bureau for review and approval, modification or denial, allowing for stakeholder and public review, as part of rulemaking procedure under Act 38. *See id.* at pages 3-4. SESA also proposes the organization of multiple interactive stakeholder workshops prior to the rulemaking procedure and that the technical

specifications and implementation timeline be achieved via a collaborative effort. *See id.* at page 5.

7. For the reasons set forth below, LUMA rejects all of SESA's claims and respectfully submits that the Technical Bulletin should be allowed to stand as published.

A. The Technical Bulletin is not a regulation and, therefore, neither a rulemaking process nor the Energy Bureau's approval was required to issue it.

8. The Technical Bulletin seeks to apply the IEEE 1547-2018 standard for smart distributed energy resources as provided in, and in compliance with, the Puerto Rico Electric Power Authority's ("Authority") Regulation to Interconnect Generators to the Electric Distribution System of the Electric Power Authority and Participate in the Net Metering Programs, Regulation 8915 ("Regulation 8915"), which is the regulation governing interconnections of systems of 1 MW or less that is currently in effect. The Technical Bulletin adopts the requirements of the IEEE 1547-2018 standard without any modifications to the settings requirements.

9. As indicated in the introductory text of the Technical Bulletin, LUMA is publishing the Technical Bulletin "to provide supporting technical information to the current regulation, [Regulation 8915]" and this bulletin "seeks to apply the IEEE 1547-2018 standard for smart distributed energy resources (DERs) settings." *See* Technical Bulletin, page iii. The introductory text also refers to a requirement in Regulation 8915's section on Control and Protection. This provision appears in Section VI, Article B of Regulation 8915; Article B contains technical requirements relating to the safety of the DG's interconnection to the Authority's electric distribution system. *See* Regulation 8915, Section IV, Article B, Paragraph 1. The specific requirement referenced in the Technical Bulletin is contained in said Article B and provides that "[i]n addition to the requirements of this Section, the customer's DG must comply with the

applicable standards in effect, including, but not limited to, IEEE 1547 ...". *See id.* Paragraph 2 (translation ours; emphasis added).

10. There are other provisions of Regulation 8915 that make reference to the IEEE 1547 standard. Under said Article B, the regulation provides that "[f]or DGs with a capacity of 500 kW or more, the Authority requires the customer to install a protection relay with microprocessor technology. Programmed adjustments to this relay must ensure compliance **with applicable standards and requirements, including the IEEE 1547 series of standards.**" *Id.* Paragraph 4 (translation ours; emphasis added). In addition, text included in Table 3 (containing DG programming requirements related to disconnections due to voltage variations in the distribution system) and Table 4 (containing DG programming requirements related to disconnections due to frequency variations in the distribution system) of this Article B allow the Authority to impose other disconnection times and voltages ranges (with respect to Table 3) and other disconnection times and frequency ranges (with respect to Table 4) "as established in the IEEE 1547 standard in effect". *See id.* Table 3, note and Table 4, note (translation ours).

11. Furthermore, Article C of Section IV on Power Quality, establishes that "**the customer is responsible for ensuring that the DG complies** with the power quality requirements specified in standards IEEE 519, IEEE 1453, IEEE 1159, **IEEE 1547**, UL 1741 **and other applicable standards.** *See id.* Article C, Paragraph 1 (translation ours; emphasis added).

12. "IEEE 1547 Standard" is defined in Regulation 8915 as: "The series of standards developed by the IEEE on the interconnection of generators with electric systems." In addition, most of the provisions of the regulation discussed above refer to the IEEE 1547 standard "in effect". *See id.* Section IV, Article B, Paragraph 2, Paragraph 4, Table 3, note and Table 4, note. Furthermore, the key provisions discussed above provide a list of applicable standards that is not

all-inclusive (by using phrases such as “applicable standards, including” or “specified standards and any other standards”), which indicates that the DG may have to comply with other applicable standards not specifically listed therein. *See id.* Article B, Paragraph 2 and Paragraph 4 and Article C, Paragraph 1.

13. LUMA has all the rights and responsibilities of the Authority with respect to the implementation of Regulation 8915, pursuant to the Puerto Rico Transmission and Distribution System Operation and Maintenance Agreement executed among the Authority, LUMA, and the Puerto Rico Public-Private Partnerships Authority (the “Authority”) dated as of June 22, 2020 (“T&D OMA”). Under the T&D OMA, LUMA is responsible for “(i) provid[ing] management, operation, maintenance, repair, restoration and replacement and other related services for the T&D System, in each case that are customary and appropriate for a utility transmission and distribution system service provider, [...] and (ii) establish[ing] policies, programs and procedures with respect thereto” (collectively, the “O&M Services”). *See* T&D OMA, Section 5.1. The O&M Services are to be provided in accordance with “Contract Standards”¹ (*see id.*), requiring compliance with Applicable Law², Prudent Utility Practice³, and other standards, terms, conditions, and requirements specified in the T&D OMA (*see id.* at page 9). The O&M Services include being

¹ “Contract Standards” is defined as “the terms, conditions, methods, techniques, practices and standards imposed or required by: (i) Applicable Law; (ii) Prudent Utility Practice; (iii) applicable equipment manufacturer’s specifications and reasonable recommendations; (iv) applicable insurance requirements under any insurance procured pursuant to [the T&D OMA]; (v) the Procurement Manuals, as applicable, and (vi) any other standard, term, condition or requirement specifically contracted in [the T&D OMA] to be observed by [LUMA]”. *Id.* Section 1.1 at page 9.

² “Applicable Law” is defined as including “any foreign, national, federal, state, Commonwealth, municipal or local law, constitution, treaty, convention, statute, ordinance, code, rule, regulation, common law, case law or other similar requirement enacted, adopted, promulgated or applied by any [governmental body] ...” in each case applicable to the parties to the T&D OMA. *Id.* at page 3.

³ “Prudent Utility Practice” is defined, in pertinent part, as “...at any particular time, the practices, methods, techniques, conduct and acts that, at the time they are employed, are generally recognized and accepted by companies operating in the United States electric transmission and distribution business as such practices, methods, techniques, conduct and acts appropriate to the operation, maintenance, repair and replacement of assets, facilities and properties of the type covered by the [T&D OMA]” *Id.* at page 26.

“responsible for all electric transmission, distribution, load serving and related activities for the safe and reliable operation and maintenance of the T&D System, ... including “compliance with interconnection of renewables in accordance with Applicable Law”. *See Id.* Annex I, Section 1(a).

14. With respect to these rights and responsibilities, the T&D OMA provides that “except for the rights and responsibilities reserved to [the Authority] and Administrator as set forth in Article 6 ... [of the T&D OMA] or as may otherwise be expressly provided in [the T&D OMA], [LUMA] shall (A) be entitled to exercise all of the rights and perform the responsibilities of [the Authority] in providing the O&M Services, and (B) have the autonomy and responsibility to operate and maintain the T&D System and establish the related plans, policies, procedures and programs with respect thereto as provided in [the T&D OMA]”. *Id.* Section 5.1. Hence, pursuant to the T&D OMA, LUMA had the authority to perform PREPA’s rights and obligations under Regulation 8915.

15. Based on all of the above, Regulation 8915 provides for the application of the IEEE 1547 standard, as that standard may be updated over time, to DG customers. Since Regulation 8915 refers to standard 1547, but not to the version of that standard, LUMA, in this case, is authorized by the Regulation to set and clarify the version of 1547 that will apply, and doing so does not amount to an amendment of Regulation 8915. Rather, LUMA is exercising the rights and obligations of the Authority under Regulation 8915 as provided under the T&D OMA and providing stakeholders clarity as to the version of a basic industry standard already made applicable to Puerto Rico by way of Regulation 8915.

16. In sum, in issuing the Technical Bulletin LUMA is not modifying or amending Regulation 8915 but rather acting within the bounds of this regulation. Note that, in publishing the Technical Bulletin, LUMA referenced a standard already contemplated in Regulation 8915 and

provided clarity as to the version of that standard that would be in effect from a date certain onwards. The Technical Bulletin did not amend or otherwise modify the provisions of Regulation 8915 that called for the application of IEEE 1547 standard. Therefore, a rulemaking process under Act 38 was not (and is not) required for LUMA to take this action. For these reasons, LUMA respectfully submits that SESA's request that a rulemaking process under Act 38 and the Energy Bureau's review and approval be required in connection with the Technical Bulletin should be denied.

17. With respect to the need to monitor LUMA's webpage, LUMA respectfully submits that it is not an uncommon practice for stakeholders in any industry, not only DG resources, to periodically monitor the webpages and other resources maintained by regulatory and similar entities in order to ensure awareness of any publications or actions taken by any such entities, regardless of whether such publications or actions are formal rules or are, as in the case of the Technical Bulletin, documents aimed at clarifying existing rules.

18. In addition, the Technical Bulletin is not of immediate effect- there being a period of approximately two (2) months provided to implement it (*see* Technical Bulletin on page iii) and it is of prospective effect, since it does not apply to existing systems that are already interconnected and under the net metering program (*see id.*). As mentioned by ICPO in the ICPO Motion, LUMA has had meetings with ICPO and stakeholders regarding IEE 1547-2018 standard and how to implement it. These meetings occurred before the standard's effective date.

B. The Technical Bulletin does not contradict Act 57 with respect to the Energy Bureau's authority relating to interconnection regulations and technical requirements, and it does not require the Energy Bureau's review or approval.

19. Certainly, as indicated by SESA, Act 57 establishes that the Energy Bureau has certain authorities relating to the approval of interconnection regulations and technical

requirements. Act 57 provides that the Energy Bureau has the power to “[r]eview and approve proposals to the interconnection regulation and the minimum technical requirements (MTRs), additional technical requirements (ATRs), and any other type of requirement established for the interconnection of distributed generators and microgrids to the electric power grid and oversee compliance therewith”. *See* Act 57, Section 6.3(w). Similarly, Act 17-2019, known as the Puerto Rico Energy Public Policy Act (“Act 17”), provides with respect to microgrid interconnection regulations, among other things, that any future amendment to or proposal for microgrid interconnection regulations shall be submitted to the Energy Bureau for their review and approval in accordance with the procedures set forth in Act 17. *See* Act 17, Section 1.13. Act 114-2007, known as the Act to Establish a Net Metering Program in the Electric Power Authority (as amended, “Act 114”) also provides that any proposed amendments to interconnection regulations must be approved by the Energy Bureau through the procedures established in that law. *See* Act 114, Section 10.

20. As explained above, the Technical Bulletin issued in this case is not an amendment of Regulation 8915 but, instead, implements Regulation 8915 by clarifying the applicability of a standard otherwise made applicable to Puerto Rico via Regulation 8915. Therefore, a rulemaking process was not required for the Technical Bulletin to be issued nor would it be required for the publication of future Technical Bulletins of a similar nature.

21. In addition, the issuance of the Technical Bulletin does not infringe on the Energy Bureau’s authority under Act 57, Act 17, or Act 114. As evidenced in this docket, the Energy Bureau has already taken the initial steps to establish a new interconnection regulation that will cover the interconnection of all types of generators, including microgrids (*see* Resolution and Order in this docket of July 15, 2021), which as stated by the Energy Bureau, would substitute

Regulation 8915, as well as Regulation 8916⁴ (*see* April 15th Order on page 1). The Energy Bureau has also determined to review the MTRs Manual proposed by LUMA for their approval. *See id.* However, as of this date, the Energy Bureau’s proposed regulation has not undergone formal rulemaking and has not been issued, and the MTRs proposed by LUMA have not been approved by the Energy Bureau. Therefore, Regulation 8915 remains in full force and effect.

22. In issuing the Technical Bulletin, LUMA is implementing the provisions of Regulation 8915, which is currently in effect. This action is not an overstep of the Energy Bureau’s authority to issue, when ready, the pending interconnection regulation and approve MTRs under Act 57-2014 or the other laws discussed above, nor does it circumvent any rulemaking authority granted to the Energy Bureau since, as mentioned before, the Technical Bulletin merely clarifies existing provisions of Regulation 8915. Once the Energy Bureau issues such new interconnection regulation, the MTRs adopted thereunder would apply instead of Regulation 8915 and the Technical Bulletin (except to the extent that such approved MTRs also adopt the IEEE 1547-2018 standard). For these reasons, LUMA again respectfully submits that SESA’s request that the Technical Bulletin be subject to the Energy Bureau’s review and approval should be denied.

C. The IEEE 1547-2018 standard set forth in the Technical Bulletin is not a System Operation Principle and, therefore, the Energy Bureau’s approval is not required.

23. System Operation Principles are defined in the T&D OMA as “principles related to the dispatch of Power and Electricity⁵” generally consistent with those set forth in Schedule I of

⁴ This is the Regulation to Interconnect Generators with the Transmission or Sub-transmission electric System of the Electric Power Authority and Participate in the Net Metering Programs, issued by the Authority on February 6, 2017.

⁵ Power and Electricity” is defined as the “electrical energy, capacity and ancillary services available from the System Power Supply”. *See* T&D OMA, Section 1.1 at page 25. “System Power Supply,” in turn, is defined as the “electric capacity, energy and ancillary services from any power supply sources authorized under Applicable Law to operate in the Commonwealth”. *Id.* at page 30.

Annex I of the T&D OMA and in accordance with other requirements set forth in the T&D OMA. *See id.* Section 4.1(h). Under the T&D OMA, LUMA is required to exercise its responsibilities relating to the dispatch, scheduling and coordinating of power and electricity from generation assets in accordance with the System Operation Principles, including coordinating the scheduling of load requirements and Power and Electricity with generators pursuant to their generation supply contracts; ensuring and coordinating the delivery of Power and Electricity; developing load and energy forecasts; scheduling requirements and capacity requirements taking into consideration unit outages; requesting and considering information with respect to operational constraints; and performing any other services related to the dispatch, scheduling or coordination of Power and Electricity from existing and future available generation assets. *See id.* Section 5.13(a). LUMA is also required to comply with the System Operation Principles in performing its responsibilities of “balancing the supply and demand of electricity, including reacting to changes in demand in real time, adjusting generation dispatch to be in balance with demand and maintaining the T&D System at safe operating levels”. *See id.* Annex I, Section I(C).

24. The System Operation Principles submitted by LUMA⁶ and approved (with conditions) by the Energy Bureau in Case No. NEPR-MI-2021-0001, *In Re: Review of T&D Operator’s System Operation Principles*⁷ explain that they establish “rules and protocols to operate the [Bulk Power System] in accordance with Prudent Utility Practice and as economically as possible in consideration of available electricity supply”, among other factors, and addresses the following functions of the operator of the system: system and resource planning, data management, energy dispatch (which relates to operating within certain dispatch principals to dispatch sufficient

⁶ *See Motion in Compliance with Order Submitting Revised System Operation Principles, Phase I Draft Procedures and Additional Information* filed on May 19, 2021, in that docket.

⁷ *See Resolution and Order* issued by the Energy Bureau on May 31, 2021, in that docket.

resources and defining communication protocols for situational needs, as well as implementing rules for load-shed events), operating parameters (which pertains to rules and procedures for operating reserves and procedures for controlling steady-state power system stability, minimize disruptions caused by contingencies and establish transmission operating limits), energy management system (providing visibility of the entire system), outage scheduling and reporting, emergency response and balancing frequency and system impacts (which pertains to procedures and schedules to enable collection of data to coordinate responses to sub-optimal voltage and/or frequency situations and to maintain system level voltages within established limits). *See System Operation Principles, Executive Summary.*

25. As can be noted, the System Operation Principles are rules and protocols applicable to the functions of dispatch, scheduling or coordination of Power and Electricity. These principles, however, do not establish technical requirements for interconnection.

26. In contrast, the IEEE 1547-2018 standard is a technical requirement for interconnection. As SESA noted in SESA's Request, the IEEE 1547-2018 standard is "contained in the draft of" the Energy Bureau proposed regulation in this docket. *See SESA's Request*, page 4. In addition, as indicated above, this standard is also included by reference as a technical requirement for interconnection in Regulation 8915 currently in effect. Therefore, evidently, the IEEE 1547-2018 standard is not a System Operation Principle.

27. Contrary to SESA's allegations, LUMA does not intend to alter frequency response times and reactive power parameters beyond what is specified in the IEEE 1547-2018 standard. The IEEE 1547-2018 standard provides that enabling/disabling the frequency and reactive power functionalities are at the utility's discretion. *See IEEE 1547-2018, Section 5.3.1* (providing that "[t]he [distributed energy resources] operator shall be responsible for implementing setting

modifications and mode selections, as specified by the [area electric power system (“Area EPS”)] operator within a time acceptable to the Area EPS operator”).

D. The timeline to implement the Technical Bulletin is reasonable, and there are no technical and compliance issues of concern.

28. LUMA’s Technical Bulletin provides a time period of approximately two (2) months for the IEEE 1547-2018 standard to apply. LUMA understands this is a reasonable period for implementing this standard. The IEEE 1547-2018 standard has already been adopted in over 25 states or regions in the US and Canada⁸. The implementation of the Technical Bulletin does not require the acquisition of new equipment or components.

E. Stakeholder meetings or collective efforts are not needed to establish the technical specifics of the IEEE 1547-2018 standard set forth in the Technical Bulletin.

29. As explained above, the Technical Bulletin is not a regulation or an amendment to a regulation but, rather, a clarification of an existing requirement of Regulation 8915, which is in full force and effect. Regulation 8915 makes applicable the IEEE 1524 standard, as such a standard may be updated from time to time. Therefore, LUMA respectfully submits that SESA’s request that the Energy Bureau hold stakeholder meetings or that the establishment of technical aspects of the IEEE 1547-2018 standard be a collaborative process should be denied.

F. Conclusions

30. In conclusion, LUMA’s issuance of the Technical Bulletin was an action taken by LUMA to support and comply with Regulation 8915 by clarifying the applicability of the IEEE 1547-2018 standard to DG customers, which is a standard already required under Regulation 8915. Therefore, the Technical Bulletin is not a regulation nor an amendment to a regulation, as it does

⁸ Interstate Renewable Energy Council, “IEEE 1547™-2018 Adoption Tracker”, <https://irecusa.org/resources/ieee-1547-2018-adoption-tracker/>, 2024.

not modify Regulation 8915. In addition, the Technical Bulletin does not interfere nor circumvent with the Energy Bureau's authority to issue interconnection regulations. Furthermore, the IEEE 1547-2018 standard is not a System Operation Principle (which consist of rules and protocols applicable to the dispatch, scheduling or coordination of Power and Electricity) that requires Energy Bureau approval, but, rather, a technical requirement for interconnection. Moreover, Regulation 8915 does not require stakeholder participation or collaborative efforts for IEEE standard 1547-2018 to apply. This notwithstanding, the standard is not effective immediately, there being a two-month period to implement it, and meetings have been held by LUMA with stakeholders and intervenors to further clarify and answer questions. For all these reasons, a rulemaking proceeding, the Energy Bureau's approval, or stakeholder workshops are not required for the issuance of the Technical Bulletin. Consequently, LUMA respectfully requests the Energy Bureau to **deny** all of SESA's requests for remedies under SESA's Request.

WHEREFORE, LUMA respectfully requests the Energy Bureau to (i) **take notice** of the aforementioned; and (ii) **deny** all requests for remedies under SESA's Request.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 22nd day of April 2024.

We hereby certify that we filed this motion using the electronic filing system of this Puerto Rico Energy Bureau and that copy of this motion was notified to agustin.irizarry@upr.edu; javrua@sesapr.org; hrivera@jrsp.pr.gov; contratistas@jrsp.pr.gov; aconer.pr@gmail.com; john.jordan@nationalpfg.com; Lionel.santa@prepa.pr.gov; arivera@gmlex.net; and mvalle@gmlex.net.



DLA Piper (Puerto Rico) LLC

500 Calle de la Tanca, Suite 401
San Juan, PR 00901-1969
Tel. 787-945-9147
Fax 939-697-6147

/s/ Laura T. Rozas
Laura T. Rozas
RUA Núm. 10,398
laura.rozas@us.dlapiper.com