

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

| In Re: | Case No. NEPR-MI-2019-0009 |
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| INTERCONNECTION REGULATIONS | Subject: Enphase Energy, Inc. Comments to PREB re: Smart Inverter Working Group Filings |

Enphase Energy, Inc. ("Enphase") respectfully submits this response to LUMA's *Motion to Submit LUMA's Comments on Subjects Discussed During Smart Inverter Working Group Meetings* and SESA's *Re-Filing of Smart Inverter Setting Recommendations*. Both were issued on April 25, 2025 pursuant to the Puerto Rico Energy Bureau's ("PREB" or "Energy Bureau") March 10, 2025 Resolution setting a comment deadline on the Smart Inverter Working Group ("SIWG") process, itself established by a November 7, 2024 Resolution and Order to consider potential refinements to default smart inverter settings that were approved to go into effect on January 1, 2025.

Enphase is a leading manufacturer of solar microinverters and battery storage systems and SESA member company, whose products are deployed in a significant majority of existing residential solar facilities in Puerto Rico. Owing to this position, Enphase has been an active participant in Case No. NEPR-MI-2019-0009, filing comments on July 15, 2024, regarding activation of smart inverter functions in accordance with IEEE 1547-2018 / UL 1741-SB, and then on December 11, 2024 to provide relevant considerations on the Volt-Watt function. Enphase has participated in all SIWG meetings, has met with LUMA outside of SIWG meetings, both individually and alongside SESA, and contributed to SESA's February 10, 2025 comments and positions that were re-filed on April 25.

Enphase has appreciated the collaborative nature of the SIWG discussions and believed the industry was making good progress with LUMA towards a mutually agreeable approach to implementing enhanced monitoring capabilities and voltage support using customer-owned inverters. We were thus surprised and disappointed to see LUMA's April 25 filing that essentially negates the SIWG negotiations and reverts to positions that, if fully approved without modification, would at a minimum be difficult to implement, would lead to customer harms, and at most would appear to be illegal and unconstitutional.

LUMA recommends applying the default settings in Technical Bulletin 2024-001 retroactively to all DER systems installed after 2018, with a primary interest in the Volt-Var and Volt-Watt functions, stating that equipment providers can "likely apply these settings remotely ("over the air")." Then, LUMA recommends that "developers" provide them with real-time access to DER operational data to better understand DER system impacts and facilitate timely refinement of

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¹LUMA Comments, April 25, 2025, at p. 8



smart inverter settings.² Finally, LUMA dismisses concerns around implementing the Volt-Watt function, stating that weather variability will lead to more curtailment, and that the function would help inverters ride through overvoltage conditions without tripping offline.³

As a threshold matter, it is unclear to Enphase how PREB would enforce these proposed retroactive requirements upon original equipment manufacturers ("OEMs"), as the PREB does not have regulatory jurisdiction over OEMs. DER customers have agreements with LUMA, reflecting technical product requirements and terms and conditions for interconnection that were in effect at the time of execution. OEMs are not parties to these contracts. Instead, OEMs have their own applicable Terms and Conditions ("T&Cs") that govern the relationship with customers that purchase and install their products. These T&Cs include provisions for protecting the privacy of customer data, including DER system data, that are the property of the customer and not of LUMA.

Enphase is consulting with our legal counsel, but it would appear to be a violation of applicable contract law to unilaterally revise the terms of an executed customer contract. Existing customers are under no obligation to agree to LUMA's proposed changes regarding updated smart inverter settings or data sharing. OEMs are also under no obligation to update settings or share real-time or historical DER data with LUMA for existing customers. Enphase is prevented from sharing customer data with LUMA without the customer's express permission, pursuant to our T&Cs, and could be liable for losses if we took unilateral action to update settings that result in curtailed energy production.

Data sharing incurs material costs to OEMs owing to calls on back-end servers. Without the proper communications media, ADMS / DERMS systems, and regulatory frameworks in place, it is premature to consider a data sharing requirement for new or existing systems. As we highlighted in our December comments, LUMA lacks a standardized method for customers, installers, or OEMs to report voltage issues. This would be a low-tech, non-scalable solution, but would help to fill in data and situational awareness gaps and identify possible mitigations.

Finally, regarding potential Volt-Watt implementation, Enphase supports the conclusions and recommendations of SESA's February 10 and April 25 filings. We reiterate the need to revisit the January 1, 2025 default settings to better enable consistent DER system operations under voltage and frequency levels that are observed to be relatively normal conditions on LUMA's grid. Retroactively implementing Volt-Var and Volt-Watt settings to any DER customer after 2018, in the unilateral manner suggested by LUMA, would inevitably harm customers by negatively impacting their energy production levels.

Enphase had been engaging with LUMA, directly and alongside SESA, to explore establishing a pilot to update smart inverter settings and provide DER system data for customers on highly impacted feeders. In our December 2024 comments, we expressed openness to updating Volt-

² *Ibid.*, at p. 9

³ *Ibid.*, at p. 12



Var settings for pre-2025 systems, to observe how more actively managed settings could potentially complement the introduction of Volt-Watt. This pilot would be conducted on an opt-in basis and should include some form of customer incentive to entice them to voluntarily agree to update their smart inverter settings and share data with LUMA.

It is thus disappointing to learn that LUMA seems to be throwing in the towel on collaboration – e.g., stating that "despite outreach efforts," no arrangements have been made⁴ – and instead concluding that they would rather seek to strong-arm customers and industry into compliance rather than working in partnership to address the persistent voltage issues on LUMA's grid.

We respectfully urge the PREB to reject LUMA's April 25 recommendations and instead adopt those of SESA. We are also willing to continue collaborative dialogue in the SIWG.

Respectfully submitted,

I hereby certify that these comments were filed using the electronic filing system of the Puerto Rico Energy Bureau and that a copy of these comments was delivered by electronic mail to: Agustin.lrrizary@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, <a href="mailto:

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⁴ *Ibid.*, at p. 8.