

Initial Feedback from the Solar & Energy Storage Association of Puerto Rico (SESA)

To: The Puerto Rico Energy Bureau (PREB)

Subject: Initial Feedback on Smart Inverter Settings from December Workshop, NEPR-MI-2019-0009

Date: December 11, 2024

Introduction

The Solar & Energy Storage Association of Puerto Rico (SESA) appreciates the opportunity to provide initial comments following the first workshop on smart inverter settings. This feedback reflects the collective viewpoints and concerns of our members, which include all solar and energy storage companies actively participating in this process and aligns with the expertise shared by IREC.

SESA supports the input provided during the workshop by member companies such as Enphase Energy, Tesla, Generac Power Systems, and others, as well as the nonprofit expertise of IREC.

This feedback serves as our initial response as the industry continues gathering data and engaging with PREB and stakeholders throughout this process.

Key Concern

Potential Volt-Watt activation remains a key concern for the solar & storage industry. SESA reiterates that activation of the Volt-Watt function would frequently prevent or significantly curtail many customers' ability to export net metered solar electricity to the power grid. In these circumstances, it's possible that a substantial amount of solar electricity would be wasted, unable to be utilized neither in the house or business to which the solar panels are attached nor on the power grid. Additionally, given that persistent overvoltage on the grid predates the customers that would be forced to activate Volt-Watt, doing so would amount to asking new residential solar and storage customers to fix voltage issues that they did not cause.

We are hopeful that activation and integration of the other Smart Inverter Settings will have a big enough impact that Volt-Watt activation won't be necessary at all. But if Volt-Watt activation is deemed necessary, we are committed to there being adequate customer protections in place before such activation occurs.

Response to Topics Raised in the November 21st 2024 Workshop

1. Avoidance of Volt-Watt Activation

SESA strongly believes Volt-Watt should not be activated unless broad agreement exists among all energy stakeholders that activation is warranted.

- SESA will encourage industry companies to collect and evaluate data assess the efficacy of Volt-VAR and other settings during the six-month period, as key information needed to evaluate the need for any potential future Volt-Watt activation, or any other potentially recommended adjustments.
- Any decision on Volt-Watt should prioritize minimizing customer impacts, protecting Distributed Energy Resource (“DER”) investments, and avoiding unnecessary curtailment.

2. Consumer Protections

- SESA supports the establishment of clear thresholds for "excessive curtailment" and mechanisms for customers, solar installers, and manufacturers to report issues.
- We recommend that reporting processes are designed to minimize confusion for customers and provide a pathway for contractors, installers, or manufacturers to escalate voltage-related issues to LUMA and PREB.

3. Technical Settings for Volt-VAR and Volt-Watt

- SESA acknowledges that the current Volt-Watt activation threshold is likely too close to the activating threshold for Volt-VAR. However, this problem arises primarily because these smart inverter functions were designed to respond to transient overvoltage rather than persistent overvoltage. The problem that arises from having triggering thresholds too close together underscores why it is inappropriate to rely on DERs to resolve persistent overvoltage issues.
- SESA agrees with stakeholders who suggested further separation of Volt-VAR and Volt-Watt activation thresholds to allow Volt-VAR to operate fully before Volt-Watt is triggered
- We appreciate PREB’s willingness to refine these settings based on ongoing data collection and impact analysis.

4. Recommendations for Future Workshops

- We encourage continued discussions on the technical aspects of smart inverter settings, especially the interplay between Volt-Watt and Volt-VAR.
- We request that future workshops allocate time to discuss the integration of DER into Puerto Rico’s grid modernization efforts and the strategic use of FEMA funds to address grid deficiencies.

5. Transparency and Clarity

- We support IREC’s recommendation to ensure settings are clear, enforceable, and aligned with the IEEE 1547-2018 standard.

6. Common File Format

- Given the presentation of EPRI at the Workshop, we see many potential benefits and no drawbacks for the creation of Specified Settings (SS) file(s) in the EPRI Common File Format reflecting the required functions and default parameter values specified in LUMA’s technical bulletin.
- EPRI offered to, for free, generate the SS file, and said it would only take around 2 days.
- SESA recommends that this SS file be created, reviewed by the PR-SIWG (this working group), and that feedback be collected and discussed to ensure consensus.
- SESA recommends a consensus-based SS file be uploaded to EPRI’s DER Settings database (<https://dersettings.epri.com>) to ensure the file is readily available to the public as soon as possible.

7. Implementation Monitoring

- We encourage more clarity to be provided for the exact manner in which LUMA will verify compliance with Smart Inverter Settings starting January 1st 2025.
- Given that there is a lag-time between the day solar systems are installed and the day paperwork is received by LUMA, a January 1st implementation date means that systems will have to be installed with the new settings correctly programmed & activated a matter of days or weeks before January 1st.
- Thus, we suggest LUMA publish a specific document detailing specifically how implementation will be monitored and evaluated, and host training workshops for manufacturers and solar installers to ensure there is adequate education leading up to the January 1st implementation date.

Next Steps and Commitment

SESA is committed to contributing technical expertise and feedback throughout this process, and to encouraging our member companies to do as well. As the workshops progress, we will work closely with our members and other stakeholders to encourage decisions to be rooted in evidence and aligned with the needs of all stakeholders, including Puerto Rico’s distributed energy producers and DER industry.

We thank PREB for its leadership with these issues and look forward to continued collaboration.

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