

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

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IN RE:
INFORMES DE PROGRESO DE
INTERCONEXIÓN DE LA AUTORIDAD
DE ENERGÍA ELÉCTRICA DE PUERTO
RICO

Case no. NEPR-MI-2019-0016

Subject: LUMA Motion in Compliance
with Outstanding Bench Orders of
December 5, 2024

MOTION REGARDING LUMA RESPONSE TO OUTSTANDING BENCH ORDER

TO THE HONORABLE ENERGY BUREAU:

COMES NOW the Solar and Energy Storage Association of Puerto Rico (“SESA”), represented by the undersigned legal counsel, and very respectfully prays and requests:

1. On December 5, 2024, during the Compliance Hearing to discuss the Interconnections Progress Report for July through September 2024, the Honorable Energy Bureau, among other requests, instructed LUMA to verify if customers benefit from the Net Energy Metering and Customer Battery Energy Sharing (“CBES”) programs for the same exported energy.
2. Through its *Motion in Compliance with Outstanding Bench Orders of December 5, 2024*, dated December 16th, 2024, particularly Exhibit 1 of said motion, LUMA Energy made the following response:

“1. Yes, NEM credits and CBES compensation are earned simultaneously for exported energy. Net Energy Metering allows customers with distributed generation systems to inject excess energy back into the grid and receive a credit that offsets their energy costs. In contrast, the Customer Battery Energy Sharing program enables customers with battery storage systems to inject stored energy

into the grid during emergency events, when generation available to the grid does not meet demand.

Both NEM and CBES rely on the same bidirectional meter to measure energy flows, creating a challenge in distinguishing the source of exported energy (whether it originates from real-time generation or stored energy released during a CBES event). This inability to differentiate energy sources limits the precision of compensation/credits. CBES compensation validation uses information provided by the aggregators.

2. While additional data from aggregators could enhance the process, the level of effort required would remain high until the full AMI infrastructure is operational. Such data, however, could play a critical role in supporting program scalability in the interim.

At the current stage of the NEM and CBES programs, it is not possible to measure the amount of energy going back and forth. The ratio of manpower and effort required to the amount of payout currently for the program is also prohibitive, as it would take a substantial manual effort to verify and assess a potential adjustment.

It is worth noting that even in jurisdictions across the United States with fully deployed AMI, challenges persist in avoiding double compensation through metering alone. These challenges have typically been addressed by modifying the compensation mechanisms rather than relying solely on metering accuracy.”

3. SESA respectfully submits the current motion, in order to clarify any confusion regarding what has been on occasion described as NEM / CBES “double-dipping”, a phenomenon that does not occur.

4. CEBS credits are accrued only for events in which customer batteries are activated. At such times, one of 3 things takes place:

A. A customers’ energy use is high, so battery activation simply lowers her own electricity consumption from the power grid, and no battery electrons flow onto power grid.

B. A customer’s energy use is zero, and all battery electrons flow onto power grid.

C. A customer's energy use is low, and some battery electrons go to fully offsetting that customer's battery use while the rest goes to the power grid.

5. Thus, following these same 3 scenarios, and under the general assumption that when activated as part of a CEBS event, that customers' battery discharges 5kW, these are the 3 possibilities:

A. The customer is already using 7kW in her house, so a 5kW battery activation simply lowers her own consumption from 7kW down to 2kW, and no battery electrons flow back onto the grid.

B. The customer consumes absolutely no electricity at all in their house (0 kW), and all the 5kW flows back onto the power grid.

C. The customer is consuming 2kW in her house, so this 2kW is subtracted from 5kW and so 3kW is flowing back onto the grid.

6. Evidently, It is irrelevant from the utility perspective which of these three scenarios is occurring. The utility interest is simply attempting to prevent a wide-scale blackout by bringing more generation online, same as if they were to activate a 20MW peaker plant.

7. Likewise, these scenarios are also irrelevant from the customer's perspective and unrelated to net metering. Assuming a customer is compensated at \$1/kWh for her battery activation during a CBES event, that customer also has to pay to charge her battery back up after a CEBS event. So, if the current retail rate of electricity is \$0.25/kWh that customer is either purchasing more electricity from LUMA to recharge, or else she is charging her batteries back up with solar, which she would otherwise be using to either

offset their own power consumption, or else would be getting kWh for kWh credit on her bill because net metering exists.

8. Therefore, no such “double-dipping” takes place: a) the customer is paid \$1/kWh for the CBES event, b) has to pay \$0.25/kWh to charge her battery back up for kWh discharged by battery, & c) saves \$0.25/kWh for kWh discharged by her battery, and therefor the customer is simply compensated for a net amount of \$1/kWh.

9. Furthermore, it is worth noting that since there are some losses take place from charging the battery back up (in other words to inject 10kWh of electricity into a battery, it takes more than 10kWh), presuming 10% losses, then it would actually take 11kWh to charge up the 10kWh, and the customer would have to pay for those 11kWh, not just 10kWh. Thus, not only is there no such “double-dipping” the normal inefficiencies involved in charging and discharging batteries will force a customer to use more kilowatt hours from the utility or from her panels.

10. Finally, SESA wants to emphasize and express appreciation for the good work by LUMA, and our member company aggregators for the collaborative success so far of the CBES Program. SESA, and its member aggregators will continue working for the fast, sustainable growth of this, the largest mostly untapped virtual power plant in the world, to help the utility, and Puerto Rican society as a whole, to drastically reduce all generation-deficit related blackouts.

11. WHEREFORE, the Solar and Energy Storage Association respectfully requests that the Puerto Rico Energy Bureau takes note of the information provided in this motion.

Respectfully submitted, on January 3d, 2025, in San Juan, Puerto Rico.



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