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Director Lauwers:

Avid Solar LLC is grateful for the opportunity to comment on the revised Clean Peak Resource Eligibility guideline proposed by DOER on July 19, 2021.

Avid Solar has noted to the Department that revenue-grade metering of DC energy is challenging for DC-coupled solar and storage facilities. DC metering and automated reporting with revenue-grade accuracy is expensive and the solutions are not widely available. Some cost as much as the hybrid solar inverters themselves. Moreover, while there is an established market for AC RGM reporting solutions, there are few established DC metering solutions that do not require additional system integration or development fees to report energy flows to MassCEC PTS. Indeed, it has been cost-prohibitive for small DC-coupled PV & battery solutions to participate in Clean Peak because of this burden. This is especially the case for PV systems that participate in SMART and qualified for the SMART Energy Storage Adder, which discounts the value of CPECs created by the battery by 70%¹. That revenue stream is too uncertain and of so little value to SMART participants, that it is not worth the effort and the investment in a reporting DC-metering solution to participate in Clean Peak. In the most recent report on Qualified Clean Peak systems, DOER demonstrates that **not one** system under 25 kW has been qualified.

In February, Avid Solar asked the Clean Peak team to please consider a potential solution that would lower the burden to participate in Clean Peak for DC-coupled systems that chose not to participate in SMART. For PV systems that are located behind-the-meter, the SMART incentive is now less than the value of Class I RECs for the majority of the EDC service territories for residential and small commercial system owners.² For PV systems that do not participate in SMART, the system owner receives the rights to 100% of the CPECs generated by both the PV system and the co-located energy storage system; the Clean Peak Resources have the same multiplier, 100%. The potential value of this incentive is not trivial and is worthy of consideration in the Clean Peak program. In addition, for non-SMART DC-coupled facilities, where the same

¹ The EDCs claim 100% of the CPECs generated by the SMART PV system because the SMART program requires the system owner to relinquish all environmental attributes to the utility in exchange for the SMART incentive.

² The SMART incentive is only more valuable than the market value of Class I RECs in Eversource East service territory. Even ten-year, fixed-price forward contracts for Class I RECs are more valuable than behind-the-meter SMART incentives for residential and small commercial customers everywhere except for Eversource East which has only reached Capacity Block 6 in the SMART program (as of 8/2/2021).

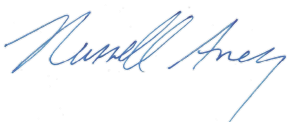
inverter is used to convert DC energy to AC energy for the PV array and the battery storage system, one AC meter can measure the output of the shared inverter for the combined output of both the PV system and the battery during the seasonal peak periods of the Clean Peak Program. Avid Solar requested that DOER consider the ability of using one meter on the AC output of the inverter, which would offer a much more economical means for Small systems to participate in Clean Peak. DOER said it would consider the matter. DOER noted it would also require updating the MassCEC PCS registration process in order to take effect.

Avid Solar, therefore, strongly supports the update to the Resource Eligibility Guideline that allows a DC-coupled, non-SMART PV + Storage system to use one AC RGM to report its combined performance during the seasonal peak periods, as long as the PV and energy storage systems have the same multiplier. Avid Solar notes that DC-coupled energy storage, because it uses a shared inverter with a PV system, is typically the most cost-effective means of installing PV and batteries for system owners. This change in the guidelines will lower the burden for people seeking economical resiliency solutions and enable them to also provide grid services for the benefit of all ratepayers.

Avid Solar notes that elsewhere, in both the Clean Peak Resource Eligibility and Demand Response Resource Guidelines, the metering and reporting requirements were not otherwise relaxed. Avid Solar continues to note that the metering and reporting requirements are a considerable barrier to entry into the Clean Peak Program for small system owners of all types. MassCEC will only allow automated reporting solutions for Clean Peak performance reporting, most of which involve both additional meters and some sort of service fee from a provider, and the reporting requires 15-minute interval data for all hours to be reported monthly, with revenue-grade accuracy—a report most service providers do not currently offer for Small systems. Avid Solar has noted to DOER that this is not a generally available report from the traditional Data Acquisition System providers that have served Small systems in Massachusetts for the SREC I, SREC II and Class I REC markets. Nor is it a standard report available through inverter manufacturers serving the Small systems market.

In the past, the states worked with NEPOOL-GIS to establish less stringent metering requirements for small RPS systems to make metering and reporting solutions more affordable and accessible. Given that Massachusetts sets the metering requirements for CPECs, Avid Solar encourages DOER to hold a technical session with manufacturers, data acquisition service providers and installers to consider alternative, less onerous metering and reporting solutions that would enable more Small systems to participate in Clean Peak, which have the added benefit of encouraging system designers of Small systems to bias their designs to performing well during the seasonal peak periods. Very few installers and system designers of small systems are factoring Clean Peak into their system designs, today, because the value is too uncertain or too expensive to pursue. That is unfortunate for everyone.

Best regards,

A handwritten signature in blue ink, appearing to read "Russell Aney".

Russell Aney, CEO
Avid Solar LLC