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AHRI Comments â€“ CEC Distributed Electricity Backup Assets (DEBA) Program Guidelines [Docket No 22-RENEW-01]

Additional submitted attachment is included below.

August 31, 2023

California Energy Commission (CEC)
Docket Unit, MS-4
Re: Docket No. 22-RENEW-01
715 P Street
Sacramento, California 95814

(Submitted electronically to [Docket 22-RNEW-01](#))

Re: AHRI Comments – CEC Distributed Electricity Backup Assets (DEBA) Program
Guidelines [*Docket No. 22-RENEW-01*]

Dear CEC Staff:

The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) respectfully submits this letter in response to the California Energy Commission (CEC) Proposed Draft Guidelines for the Distributed Electricity Backup Assets Program as presented at the August 15, 2023, Staff Workshop.

AHRI represents more than 300 air-conditioning, heating, and refrigeration equipment manufacturers. It is an internationally recognized advocate for the HVACR industry and certifies the performance of many of the products manufactured by its members. In North America, the annual economic activity resulting from the HVACR industry is approximately \$256 billion. In the United States alone, AHRI member companies, along with distributors, contractors, and technicians employ more than 1.3 million people. AHRI represents many manufacturers of North American Thermal Energy Storage (TES) equipment, all of which manufacture products which support California's Strategic Reliability Reserve (AB 205) goals.

Ice TES technologies store energy created at a particular time and makes it available to be used later, reducing load on the electrical grid during on-peak electric demand by shifting energy use to off-peak hours. Control strategies can be easily modified to respond to load reduction during extreme events, by shifting the time of TES charge/discharge. TES systems perform best in high heat conditions and do not degrade or stress the grid as temperatures increase, supporting appropriate credit for an emergency response measure.

AB 205 created the Distributed Electricity Backup Assets Program and directed the Commission to –

“[I]mplement and administer the program to incentivize the construction of cleaner and more efficient distributed energy assets that would serve as on-call emergency supply or load reduction for the state’s electrical grid during extreme events. ... (b) In implementing and administering the program, the commission ... shall allocate moneys for either of the following: ... Deployment of new zero- or low-emission technologies, including, but not limited to, fuel cells or energy storage, at existing or new facilities.”¹

AB 205 further provides that the Commission shall develop guidelines that –

“include a loading order that aims to achieve electricity reliability and prioritizes feasible, cost-effective demand response and efficiency resources, then feasible, cost-effective renewable and zero-emission resources, and then feasible, cost-effective conventional resources. The guidelines shall also consider the anticipated useful life of the resources in relation to the state’s climate and air quality requirements.”²

In summary, AB 205 created the DEBA program to incentivize, among other things, clean, zero-emissions, distributed energy assets, such as energy storage (without limiting the class of technology), provided it can reduce loads during extreme events, and prioritizes demand response resources. TES precisely answers this definition.

Nothing in AB 205 limits the DEBA Program to load reduction resources that will serve solely for emergency response, but to resources that can participate “as an on-call emergency resource for the state during extreme events.” Accordingly, a resource **that provides other services to the power grid, including daily load reduction, should not be excluded from DEBA. On the contrary, it should be encouraged as it provides greater value.**

Behind-the-meter (BTM) Energy resources can be sub-metered directly. In the definitions, it is mentioned that Load reduction is measured relative to a baseline. Energy storage projects (Thermal and other) output can be measured directly and verified in real time using utility grade submeters. It is essential that energy storage project Loads are verified using a submeter to enable verification of loads in real time, allowing accuracy through automation. In addition, baseline for energy storage have the following disadvantages:

- They do not provide accurate measurement for highly variable customers and they over or under compensate.
- They do not enable the resource to provide daily reductions (since there is no baseline for comparison).

¹ AB 205, available, here:

https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB205

² *Id.*

Using TES with HVAC equipment also supports equipment efficiency, allowing cooling loads to be met over a multi-day event without a decrease in efficacy from prolonged use in high-temperature scenarios. More information on TES environmental benefits, applications, product basics, product types, installation and maintenance considerations, and standards are available on AHRI's website.³

Very few modifications to the August 11th Proposed Draft Guidelines for the Distributed Electricity Backup Assets Program are needed to explicitly include TES. We suggest the following changes:

- Section A.1.b: Add "Thermal Energy Storage" as an example eligible project for Category 1: Bulk Assets and Category 2: Distributed Resources.

AHRI maintains that Distributed Energy Resource (DER) resources should receive resource adequacy (RA) similar to Grid bulk resources including in all months of the year. AHRI does not see a reason to have a different treatment between these types of resources nor to prevent DERs for signing RA. Furthermore, this distinction creates complication for the resources that will only need to sell RA part of the year.

Rather than a grant funding opportunity (GFO) program, AHRI would like to recommend that CEC consider implementing DEBA as a stable program, as for other behind the meter (BTM) assets. The GFO mechanism slows market acceptance for BTM assets since (a) there is no clarity if the project will be funded, and (b) a grant is required for every project. A more standard utility program structure would enable the marketing of known solutions to many customers, with funds distributed evenly among customers.

AHRI's members are continuously working to review and design new higher efficiency equipment that improves consumer comfort, without compromising consumer choice, product quality, or safety. In fact, AHRI members offer the most technologically advanced and efficient HVACR and water heating equipment available anywhere in the world. AHRI and its members support the reduction of greenhouse gas (GHG) emissions and will continue to collaborate with stakeholders to work toward that goal.

AHRI appreciates the opportunity to provide these comments and would like to continue to be engaged with this effort as the CEC develops its future work in this arena. We also request a meeting with CEC to present details on ice TSE equipment.

³ AHRI Thermal Energy Storage webpage is available, here: <https://www.ahrinet.org/scholarships-education/education/contractors-and-specifiers/hvacr-equipmentcomponents/thermal-energy-storage>

If you have any questions regarding this submission, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'LPG' with a long horizontal flourish extending to the right.

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