

**DOCKETED**

<b>Docket Number:</b>	22-RENEW-01
<b>Project Title:</b>	Reliability Reserve Incentive Programs
<b>TN #:</b>	248853
<b>Document Title:</b>	Enchanted Rock's Comments on DSGS and DEBA Programs
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Enchanted Rock
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	2/17/2023 2:05:36 PM
<b>Docketed Date:</b>	2/17/2023

*Comment Received From: Enchanted Rock  
Submitted On: 2/17/2023  
Docket Number: 22-RENEW-01*

**Enchanted Rockâ€™s Comments on DSGS and DEBA Programs**

*Additional submitted attachment is included below.*

February 17, 2023

California Energy Commission  
Energy Research and Development Division  
Deana Carrillo – Deputy Director  
Reliability Reserve Incentive Programs  
Docket Number 22-RENEW-01  
715 P Street  
Sacramento, CA 95814

**Re: Enchanted Rock’s Comments on Workshop on the Demand Side Grid Support Program and Distributed Electricity Backup Assets Program (Docket No. 22-RENEW-01)**

Enchanted Rock appreciates the opportunity to provide comments on the **Workshop on the Demand Side Grid Support (DSGS) Program and Distributed Electricity Backup Assets (DEBA) Program** to help identify and deploy clean energy resources to support grid reliability.

Enchanted Rock is a resiliency microgrid developer, owner, and operator with over 1,000 MW in operation or under construction nationwide, of which 200 MW is in California. Our generation technology meets the ultra-low emissions levels required by the California Air Resources Board (CARB) Distributed Generation (DG) Certification Program - the cleanest local emission standard for reciprocating engines in the nation. Through the supply of renewable natural gas (RNG), our technology provides net zero or net negative carbon emissions for both resiliency and grid services.

Enchanted Rock’s responses to the questions posed by the California Energy Commission (Commission) during the January 27, 2023 workshop (Workshop) follow, as well as additional information which will be instructive to the Commission as it develops the DSGS and DEBA programs to encourage deployment of proven assets that can meet the state’s electricity supply gap and support the transition to 100% renewable power.

**DEBA Question 1: How best can DEBA invest in assets for emergency load reduction without interfering in the Resource Adequacy Program or creating clean stranded assets?**

The DEBA program should prioritize the development of clean, reliable, and resilient backup assets for emergency operations by providing incentives to deploy those assets strategically and rapidly. Further, these assets should be located at readily available interconnection locations, adjacent to facilities or community assets that can directly benefit from load reduction or backup power capability. By coupling DEBA incentives with certain existing programs under California Public Utilities Commission’s (CPUC) jurisdiction, the program can drive the development of *new* assets to meet the state’s shortfalls and make it possible to economically replace *existing* diesel assets, especially those in disadvantaged communities, on an expedited basis.



DEBA assets may become stranded as the state’s emissions goals become more stringent and FY 2022/2023 DEBA program funding is exhausted. Participants dependent on program financial incentives to cover capital and operating expenditures face the prospect of retiring assets before the end of their useful lives without a path to long-term revenue opportunities. To minimize this risk the Commission should consider the following:

- Focus on the lowest capex assets that can reliably support system shortfalls and provide predictable local emergency backup.
- Give priority to commercially available technology options with the lowest criteria pollutant and GHG emissions with a low capacity factor (1-3%), supplied by Renewable Portfolio Standard-eligible (RPS) renewable fuels.
- Develop an incentive rate that varies with the length of contract, giving priority to those assets that align with a fifteen-to-twenty-year contract term.
- Review available programs, including utility Base Interruptible Programs (BIP), and potential program modifications required to continue incentivizing the deployment of new clean, cost-effective, distributed backup assets after the exhaustion of DSGS/DEBA funding.

We also suggest the Commission facilitate jointly hosted stakeholder workshops with the CPUC to define and develop a pathway for RPS-eligible behind-the-meter (BTM) assets to be valued for Resource Adequacy<sup>1</sup> and transition out of DEBA, DSGS, Emergency Load Reduction Programs (ELRP), and BIP in the long-term.

**Question 2: What [framework] modifications could unlock additional resources for emergency events?**

Enchanted Rock supports the Commission’s DEBA framework as proposed, including the Commission’s focus on assets which provide incremental supply during an emergency event and the proposed prohibition on diesel backup assets. However, the framework could use clarification that DEBA funded assets are able to participate concurrently in complementary, and not duplicative, existing programs. This will maximize the grid’s reliability by leveraging DEBA to incentivize new build, while programs like DSGS, ELRP, and BIP provide an ongoing obligation and compensation for high performing existing assets.

Slide 51 of the Workshop presentation states that DEBA funded resources must “provide incremental load reduction or supply during an emergency event through any emergency load reduction program, such as ELRP (Emergency Load Reduction Program) or DSGS.” Based on this recommendation, and reference to ELRP and DSGS, Enchanted Rock believes that BIP should be eligible for pairing with DEBA funding. Under BIP, resources are compensated for performance, like ELRP, but under a different procurement construct requiring annual renewal for capacity-based payments. The DSGS options mimic ELRP and BIP program offerings for the non-IOU territories, and all three programs are designed to attract performance from *existing* resources. However, ELRP and BIP are not fully subscribed, as the incentive levels are not designed to attract new build. By layering DEBA on top of these programs, the Commission will be sending an investment signal for *new* resources to be deployed and enrolled in the emergency response programs.

For these reasons, the Commission should make clear that distributed resources participating in DEBA can also participate in either ELRP, DSGS, or BIP.

---

<sup>1</sup> Consistent with direction from the CPUC under D.20-06.031 and D.21-06-029.

**Question 3: Are there additional criteria that the CEC should consider when evaluating projects? How should the CEC rank or weight the evaluation criteria?**

Support for State’s Environmental Goals:

AB 205 (2022) reflects the legislature’s concerns about the harmful effects from diesel backup generation. California Water Code §80710(b)(1)(B) expressly prohibited the use of diesel backup generation after July 31, 2023, for Department of Water (DWR) procured grid resiliency projects. While this prohibition is specific to DWR projects, diesel backup generators, regardless of emissions standards compliance, should not be permitted in the DSGS and DEBA programs. This is especially important as diesel backup generation in California is often sited near vulnerable communities, and disproportionately impacts the health of these communities.<sup>2</sup>

Rather, supported technologies should meet the thresholds for criteria air pollutants established by the California Air Resources Board (CARB) Distributed Generation (DG) Certification. Supported technologies must also use RPS-eligible renewable fuels. By limiting the program to assets that meet these criteria, the Commission can lower GHG emissions and improve air quality for all communities, but especially for those located near diesel backup assets.

Reliability Performance and Dispatchability:

The DEBA program should focus on technologies that complement wind/solar generation and battery storage by providing long duration, on-demand energy to fill in supply gaps during unexpected supply and demand imbalances, outages, or grid emergencies. These technologies can be co-located and co-optimized with intermittent renewables and limited-duration storage to cost-effectively firm up the energy output of the facility. One such technology - microgrids, can be remotely controlled and aggregated to act as a “virtual power plant.” These microgrids can respond to grid conditions within seconds, providing needed firming capacity to intermittent resources. With the appropriate distribution system investments, these assets can also be used to create community or substation-level microgrids to provide resiliency through islanding capabilities.

During times of grid stress, operators rely upon resources that can act quickly, and in a transparent and reliable manner. Therefore, the CEC should add dispatchability to its list of project evaluation criteria. From an emergency supply perspective, dispatchability means high-capacity availability with short notice. For example, a 95% availability at all times with 10 minutes or less notice provides maximum flexibility to grid operators attempting to navigate an electrical emergency.

As such, DEBA should supplement existing CPUC Demand Response policies and programs by offering the incentive program to qualifying projects that:

- are operational as of the effective date of the new DEBA program;
- can be installed and operational within 18 months of being awarded a DEBA incentive;
- are sized to deliver a minimum 6-hour duration with the awarded capacity during peak load;
- can meet a 95% availability threshold to ensure grid reliability;
- can provide response within 10 minutes;
- conform to the state’s RPS; and

---

<sup>2</sup> See [Diesel Back-Up Generator Population Grows Rapidly](#) documenting the surge of diesel backup generation throughout California

- meet CARB DG air emissions thresholds.

#### Equity:

The proposed program, coupled with Enchanted Rock's recommendations, should drive down local criteria air pollutant emissions through the displacement of new, and replacement of existing, diesel backup assets. DEBA assets will improve access to reliable, resilient power for communities and their critical facilities. To expedite the transition away from diesel backup in underserved and disadvantaged communities the Commission should consider an incremental incentive of \$500 - \$1000 /kW above the proposed base DEBA incentive to facilitate the replacement of diesel back up generation that is not yet at end of life. These communities have a long history of negative and disproportionate impacts from long-term outages and reliability issues. Microgrids benefit low-income, disadvantaged, and tribal communities by providing locally sourced, reliable, and clean energy resources. In turn, these communities become more resilient and energy independent, and place less stress on the grid.

#### **Question 4: What are reasonable exceptions to non-performance in an emergency event?**

Only the most reliable and proven distributed resources should be considered for the DEBA program. The Commission should consider requiring a 95% availability rate for participating capacity for the duration of an emergency event. Further, reasonable exceptions for non-performance should be limited to force majeure events or to grid outages which prevent the export of generated power from the asset, though emergency operation to supply local load may still occur during a grid outage.

The owners or operators of assets that perform outside these limited exceptions should be subject to:

- repayment of incentives related to the non-performance; and
- reasonable penalties to discourage future non-performance where performance is measured on availability during the emergency event.

The DEBA incentives should not be set to levels lower than what Enchanted Rock has proposed as a trade-off for lower penalty amounts. Reasonable penalties for non-performance help promote technologies that offer strong track records of high availability rates and performance.

Non-performance should be evaluated at the portfolio level for program participants managing multiple assets. The targeted reliability needs being addressed by DEBA are not site-specific or local. It is reasonable, therefore, for the Commission to evaluate performance of assets with respect to aggregate impact on the larger grid. This will allow participants to maximize the value of these assets for the grid. In many cases, developers or aggregators who manage multiple assets can remotely adjust output levels up or down to balance total fleet production. It would be imprudent to assess penalties for the non-performance of a single asset while the portfolio of assets continues to provide the committed performance in aggregate.

#### **Question 5- What level of funding is needed to spur the development of a project?**

##### Incentive Structure:

The DEBA program should provide an up-front incentive of \$450-\$550/kW to attract investment in the development of new dispatchable capacity and, when paired with the proposed incremental incentive above, to provide an economic rationale for the replacement of existing diesel backup generation. If a DEBA asset were not allowed to participate concurrently in BIP, then the base incentive amount per kW would need to be \$1150 - \$1250/kW to provide sufficient economic support; significantly decreasing the achievable capacity under the program's limited funding.

Incentives must be adequate to cover the incremental cost of a fully installed system compared to the alternative, or no market adoption will occur. For example, SGIP incentive levels are currently at \$250/kWh for some large-scale storage customers, and that level is lower than needed to support the market segment, as shown by the slow pace of adoption. If DEBA is to effectively replace existing diesel backup generation, then the incentive stack must cover the entire cost of replacement, including removal and replacement.

The incentive amount should be based upon the kW delivered to the grid, either as a BTM asset measured by load reductions plus any allowed export capacity or as a Front-of-the-Meter (FTM) asset based on grid synchronous capacity. The DEBA incentive should not be awarded as a percentage of capital expenditure. The fixed incentive rate promotes competition across technologies and facilitates the development of the most cost-effective assets.

For BTM assets, if export capacity is dependent on receiving deliverability from the local electric utility, then incentive payments should be made in two phases: (1) a payment based on kW of peak load reduction and then upon award of deliverability, (2) a payment based on the kW difference between grid synchronous capacity and peak load reduction.

### **Other Concepts for Discussion**

#### Streamlining the Project Application Process:

Enchanted Rock appreciates the complexities and challenges of evaluating the merits of project applications. There exists multiple, and often competing, considerations concerning performance, cost, and state environmental policy goals. However, the Commission's top priority should be the deployment of assets as quickly as possible.

As such, we recommend a fast-track approval pathway for projects that will be operational by June 1, 2025, and willing to commit to perform for a term not less than 10 years.

#### For single project applications:

If an applying project meets the qualifying criteria proposed in response to question 3, the fast-track criteria listed above, and the developer or site host identifies a specific location for installation of the backup asset, the project should be deemed pre-qualified. Incentive funding for the project would then be reserved for a period of six (6) months to provide time for the project to secure contracts. If contracting is unsuccessful within six months, then the funding allocation is cancelled. We propose that \$150 million of allocated program funding be set aside for participation in this expedited process.

#### For portfolio applications:

If an applicant represents a portfolio of projects that meet the qualifying criteria proposed in response to question 3, the fast-track criteria listed above, but has not yet identified specific individual sites, the portfolio of projects should be deemed pre-qualified. Technologies approved under this program should be required to demonstrate a history of successful deployment in a BTM use case and have a minimum of five hundred megawatts installed nationally as an indication of viability. Under this program the project developer can substitute or otherwise identify project locations, so long as the total portfolio megawatts is not decreased. We propose that \$150 million of allocated program funding be identified for participation in this expedited, portfolio-based process with each application able to secure a maximum of \$20 million.

For project applications that do not meet the fast-track criteria or minimum qualifying criteria, Commission staff should review and score applications for priority ranked funding. Equity and co-benefits evaluation criteria would be incrementally additive to a project's evaluation against the other criteria as identified by the Commission. We do note that the utilization of a CARB DG Certified technology that directly burns or is offset by RNG is inherently beneficial to Disadvantaged Communities and/or low-to-moderate income communities where a commercial or industrial asset would be located. Additionally, it is based upon our extensive experience in developing and managing microgrids that critical infrastructure assets, as self-defined, are willing to invest in resiliency, thereby supporting overall grid reliability.

Enchanted Rock applauds the Commission for its efforts to expand the use of clean, distributed energy resources for grid reliability. We are committed to supporting the successful development and implementation of these critical programs.

Thank you for your consideration.

Sincerely,



Allan Schurr  
Chief Commercial Officer  
Enchanted Rock



Joel Yu  
Vice President, Policy  
Enchanted Rock



Scott D. Lipton  
Energy Policy Manager, West Region  
Enchanted Rock