

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding
Policies, Procedures and Rules for the
California Solar Initiative, the Self-
Generation Incentive Program and Other
Distributed Generation Issues.

Rulemaking 12-11-005
(Filed November 8, 2012)

**RESPONSE OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
TO CALIFORNIA SOLAR & STORAGE ASSOCIATION'S PETITION FOR
MODIFICATION OF DECISION 19-09-027 AND DECISION 20-01-021**

Alex J. Morris
Executive Director

Jin Noh
Senior Policy Manager

CALIFORNIA ENERGY STORAGE ALLIANCE
2150 Allston Way, Suite 400
Berkeley, California 94704
Telephone: (510) 665-7811
Email: cesa_regulatory@storagealliance.org

May 1, 2020

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues.

Rulemaking 12-11-005
(Filed November 8, 2012)

**RESPONSE OF THE CALIFORNIA ENERGY STORAGE ALLIANCE
TO CALIFORNIA SOLAR & STORAGE ASSOCIATION’S PETITION FOR
MODIFICATION OF DECISION 19-09-027 AND DECISION 20-01-021**

In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”) hereby submits this response to *California Solar & Storage Association’s Petition for Modification of Decision 19-09-027 and Decision 20-01-021* (“Petition”), submitted by the California Solar & Storage Association (“CALSSA”) on April 1, 2020.

I. INTRODUCTION.

CESA strongly supports CALSSA’s Petition that seeks modifications and clarifications to Decisions (“D.”) 19-09-027 and 20-01-027, which together established a new Equity Resiliency Budget and made several modifications to funding allocations, incentive rate structures, and eligibility and program requirements for various energy storage projects seeking funds in the Self-Generation Incentive Program (“SGIP”). Some of the requests involve corrections or clarifications that CESA also supports. To add further perspective or detail from the storage developer community, CESA offers our response herein in support of CALSSA’s Petition.

Importantly, we urge the Commission to expeditiously grant CALSSA’s requested relief in its Petition. Though Administrative Law Judge (“ALJ”) Cathleen A. Fogel denied the Joint

Storage Parties' Motion to shorten the comment period on CALSSA's Petition, the need for timely implementation of the various requests in the Petition will involve a number of additional procedural steps to rule on the requests and implement them thereafter, including the drafting and issuance of the Proposed Decision ("PD") and the issuance and stakeholder responses or protests to the Program Administrator ("PA") advice letter filings. Beyond the comment period to the Petition as already ruled by the ALJ, the merits of the Motion around expediting other aspects of the procedural, due process, and implementation timeline still hold, which was not discussed in the ALJ's Ruling on April 16, 2020. If the Commission finds the requests in CALSSA's Petition to be reasonable, then the likelihood of success of the requested changes will also hinge on the timeliness of implementing these changes ahead of the 2020 wildfire season. As such, CESA urges the Commission to consider the timeline changes proposed in the Joint Storage Parties' Motion.

II. INCENTIVE RATE STEP-DOWN STRUCTURE BY DURATION FROM D.19-09-027 SHOULD BE EXTENDED TO GENERAL MARKET ENERGY STORAGE SYSTEMS AS EXPLAINED IN D.20-01-021.

CESA agrees with CALSSA's identification of the discrepancies in D.20-01-021 regarding the incentive rate step-down structure by duration.¹ An error appears to be made in Ordering Paragraph ("OP") 26, which established an incentive rate step-down structure by duration as follows: 100% of full incentive rate for 0-4 hours; 25% for 4-6 hours; and 0% for 6+ hours. In D.20-01-021, the Commission determined that an incentive rate step-down structure by duration should be similar for all storage projects, explaining as follows:²

"We approve the incentive step-down structure adopted in the Equity Resiliency Decision for SGIP general market energy storage systems. The rationale provided in the Equity Resiliency Decision to support modifying the incentive step-down structure for equity

¹ Petition at 4-5.

² D.20-01-021 at 56-57.

budget and equity resiliency storage projects applies equally well to general market storage projects. Modifying the step-down in incentives for storage systems with longer than a two-hour discharge provides customers with more system design and configuration options to ensure they are able to meet their specific resiliency needs during PSPS and other outage events.”

The incentive step-down structure that is adopted in D.20-01-021 and is being referred to can be found in D.19-09-027:³

“We approve CSE’s proposed modifications to the incentive rate step-down structure based on duration, with the modification that storage systems with a discharge duration of four to six hours receive 50 percent of the base incentive rate for capacity beyond four hours, rather than no incentive.”

Despite the explanations and references above in D.20-01-021 and D.19-09-027, Conclusion of Law (“COL”) 18 and OP 26 in D.20-01-021 maintained the existing and previous incentive step-down structure for general market storage projects. However, the COL and OP are inconsistent with the body of the decision. To support timely and accurate implementation pursuant to the Commission’s intent, CESA urges that these inconsistencies be fixed, wherein the same incentive step-down rate structure by duration is adopted for all storage projects as follows:

Energy Storage Duration (per kW)	Percentage of Full Incentive – General Market
Zero to two hours	100 percent
Two to four hours	
Four to six hours	25 percent 50 percent
Greater than six hours	0 percent

Notably, since CALSSA submitted its Petition on April 1, 2020, the PAs submitted an advice letter to implement a number of requirements from D.20-01-021 that would more efficiently correct what the Commission may have intended by implementing the modifications above.

³ D.19-09-027 at 30 and 91.

Considering the need for efficiency and timeliness as the 2020 wildfire season quickly approaches, CESA recommends that the Commission move forward with approval of the PAs' advice letter on this aspect of the decision and make this error correction in resolving this Petition, as opposed to holding off changes on this matter until the Commission formally makes these corrections through a decision on this Petition.

III. ALL EQUITY AND GENERAL MARKET ENERGY STORAGE PROJECTS WITH LONGER THAN TWO-HOUR DISCHARGE DURATION SHOULD NOT BE REQUIRED TO PROVIDE BACKUP POWER GIVEN OTHER PROGRAM GOALS AND ADDITIONAL COSTS INCURRED IN BEING SUBJECT TO SUCH A REQUIREMENT.

CESA wholeheartedly agrees with CALSSA's Petition regarding the many reasons why resiliency and backup power requirements should not be placed on all projects with longer than two-hour discharge duration.⁴ As CALSSA describes,⁵ not all of these customers are located in areas prone to public safety power shutoff ("PSPS") events and energy storage projects can be deployed for non-resiliency applications, such as renewables integration and load shifting (*e.g.*, away from 4-9pm peak time-of-use ["TOU"] or coincident demand periods) that ultimately deliver greenhouse gas ("GHG") emissions reduction and grid-support benefit when rates are aligned or contracts drive such behavior – all while delivering customer bill savings.⁶ There may be other grid services such as demand response ("DR"), resource adequacy ("RA"), or distribution deferral that greater than two-hour storage systems could be well positioned to provide. Such operations from 2+ hour storage systems would thus be forced to provide resiliency services despite being

⁴ Petition at 5.

⁵ *Ibid* at 7.

⁶ For example, one member explained to CESA that four-hour storage systems have better economics than two-hour systems when paired with solar (*e.g.*, Option R, high-energy rate schedule). These systems help customer generate more energy arbitrage savings than demand charge reduction savings.

able to support SGIP’s core tenants and goals to reduce GHG emissions and provide grid support even without providing resiliency.

The decisions, as written, would unreasonably impose additional costs on storage systems that may not have a need or desire for resiliency applications. These additional costs can range depending on customer need, load, and type but include:

- **Full site backup cost components:** Load-side connection, islanding controller, and automatic transfer switch (“ATS”) or something similar to isolate site loads from the utility grid.
- **Critical load backup cost components:** Critical loads panel and load-side connection, islanding controller, new islanding contacting or motorized breaker (large portion of costs), and re-routing existing wiring to backed up load center (*i.e.*, another significant portion of costs).
- **Engineering studies:** Resilient storage systems typically require more complex engineering studies (*e.g.*, islanding, load/power study) and may consultative review of loads for criticality (*e.g.*, investigation into customer existing electrical system configuration), which can increase the length of the project deployment cycle by two to six months and thus the developer’s origination costs.

Building off the data points provided by CALSSA in its Petition, CESA estimates that a prescriptive resiliency requirement for all general storage projects could drastically impact project economics:

- **Small commercial facilities:** Incremental costs to add resiliency and islanding capabilities can amount to \$15,000 to \$70,000 per project.
- **Medium and large commercial facilities:** Incremental costs to add resiliency and islanding capabilities can amount to \$60,000 to \$150,000 per project. These customers include schools, grocery stores, or small business manufacturing facilities.
- **Large industrial facilities:** Developers report an extra \$500,000 to \$1,000,000 to make 2+ hour storage islandable. Typically, this will be 20% to 80% of project costs, but for some large loads, it could reach 200% of costs. Manufacturing facilities, for example, represent massive loads where developers are aiming to put in 4- to 5-hour batteries to support peak demand and would be really challenging from energy or power standpoint to provide backup.

Given these additional costs, not to mention longer project timelines, several developers have indicated that customers would not move forward with the project if they needed a system designed for backup, especially given the current General Large Storage incentive rate. The \$0.15/Wh adder and the extra incentives by duration can cover some situations, but there are many where it would not cover the extra expense. In addition, many commercial and industrial customers already have on-site backup power (gensets) and may not seek additional resiliency from energy storage systems, thus benefiting from the economics, savings, and revenues of a 2+ hour storage system without the added resiliency costs and requirements.

Considering D.19-09-027 and D.20-01-021 were adopted to address an urgent resiliency need, this modification may have been unintended to apply to general market and Equity projects with no intention to provide islanding and resiliency services. In the rush to modify the program, this issue was overlooked by all parties. Even if the Commission intended to prioritize or shift the focus of SGIP to support storage to provide resiliency, CESA believes that such “prioritization” is already reflected in the funding allocations (pursuant to D.20-01-027), where the vast majority of Senate Bill (“SB”) 700 authorized funds are dedicated to the Equity Resiliency Budget.⁷ For general funds, where much less is added and no base incentive rate increase is provided,⁸ it seems reasonable to allow such projects to be better supported to provide GHG and grid benefits – the other tenants of the program. Furthermore, while the Commission has discussed how 2+ hour

⁷ D.20-01-021 at Finding of Fact (“FOF”) 6.

⁸ As CALSSA notes in the Petition at 14, the general non-residential storage market has stalled and was not supported in D.20-01-027 with a higher incentive rate, such as around \$0.50/Wh or \$0.55/Wh, which would have supported the bankability of a majority of such projects. Adding the resiliency requirement for such projects would only serve to further stall this market segment, especially with the incentive rate maintained at \$0.35/Wh.

storage systems are better suited for resiliency,⁹ there is no determination made that longer-duration systems only derive value from providing resiliency to its customers.

CESA recommends that the Commission correct these errors and oversights and that the Commission grant CALSSA's requests in its Petition to remove the backup requirement and the informational submittal requirements for all general and Equity storage projects with greater than 2 hours of discharge duration and only apply such requirements for projects claiming Equity Resiliency incentives or the resiliency adder incentives, given that such projects have an explicit intent to provide resiliency to their customers and must provide assurances to the Commission and the PAs of their resiliency capabilities. While longer-duration storage is generally more suitable to provide backup power, there are other reasons for the Commission to support longer-duration needs (*e.g.*, peak load shifting, renewables integration) for customers that may not necessarily need or want backup and resiliency services.

Finally, as discussed in our introduction above, timeliness on the resolution of the Petition is important, as some developers have reported to CESA that many customers are opting to install sub-optimal two-hour storage systems instead of more optimal four- or five-hour storage systems to avoid the resiliency requirement for their general-market projects. Combining factors around the uncertainty of the Commission's determination on this matter, the imminent launch of the SGIP budget categories, and the limited amount of general-market funds, some customers are starting to make sub-optimal investment decisions, where clarification and revisions on this matter would incentivize better customer investments that deliver optimal grid support and GHG savings.

⁹ D.20-01-021 at FOF 47-48.

IV. THE SIZING LIMIT TO THE CUSTOMER PEAK LOAD SHOULD BE REMOVED FOR STORAGE PROJECTS THAT DO NOT QUALIFY FOR EQUITY RESILIENCY BUDGET INCENTIVES OR THE RESILIENCY ADDER BUT WOULD STILL SEEK TO SIZE THE STORAGE SYSTEM FOR RESILIENCY NEEDS.

CESA fully supports CALSSA's request in its Petition to extend the sizing limit exemption for storage resiliency projects if necessitated by the modularity of system component sizes, such as those of the inverter.¹⁰ CESA firstly appreciates the Commission's and the PAs' consideration of the comments made by CALSSA, CESA, and Tesla in accommodating this issue in D.20-01-027 and in the SGIP Handbook revisions.¹¹ Such responsiveness to feedback from storage developers is appreciated and will better position to success of storage projects deployed for resiliency purposes.

To support storage-backed resiliency for all customers who want or seek resiliency, regardless of whether they qualify for either the Equity Resiliency incentive or resiliency adder, CESA recommends that the Commission grant CALSSA's Petition on modifications to allow the system sizing limitations to be lifted upon demonstration and substantiation for sizing beyond customer peak load due to the modularity of inverters. In doing so, the benefits of resiliency will be expanded beyond those customers who would *not* be eligible for the Equity Resiliency incentive or resiliency adder but would like to pursue resiliency, despite not requiring additional SGIP funds to support such projects. This is reasonable to accommodate resiliency projects for general and Equity customers who seek to "size systems more appropriately to on-site needs."

However, as noted above in being careful not to apply a universal resiliency requirement, the Commission should carefully distinguish that such customers who do not qualify for the Equity

¹⁰ Petition at 14-15.

¹¹ D.20-01-021 at FOF 57, COL 26-27, and OP 30.

Resiliency incentive or the resiliency adder would be opting into the information submittal requirements of other resiliency-intended storage projects to be granted this sizing limit flexibility. CESA believes this is a reasonable request and would advance the Commission's goal of supporting resiliency for all SGIP customers who want or need it.

V. **CONCLUSION.**

CESA appreciates the opportunity to submit this response to the Petition and recommends that the Commission expeditiously grant CALSSA's Petition to ensure timely access to SGIP incentives for resiliency as well as to ensure that storage projects advance the multitude of goals of the program.

Respectfully submitted,



Alex J. Morris
Executive Director
CALIFORNIA ENERGY STORAGE ALLIANCE

Date: May 1, 2020