BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the Self-Generation Incentive Program and Related Issues.	Rulemaking 20-05-012 (Filed May 28, 2020)

COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON THE ASSIGNED COMMISSIONER'S RULING REQUESTING COMMENT ON HEAT PUMP WATER HEATER CONTRACTOR TRAINING AND WORKFORCE ISSUES AND METHODS TO INCREASE SELF-GENERATION INCENTIVE PROGRAM TECHNOLOGIES' CONTRIBUTIONS TO SUMMER RELIABILITY

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission"), the California Energy Storage Alliance ("CESA") hereby submits these comments on the *Assigned Commissioner's Ruling Requesting Comment on Heat Pump Water Heater Contractor Training and Workforce Issues and Methods to Increase Self-Generation Incentive Program Technologies' Contributions to Summer Reliability* ("Ruling"), issued by Commissioner Clifford Rechtschaffen on August 3, 2021.

I. INTRODUCTION.

CESA understands the Commission's urgent need to find mitigation measures for potential system capacity shortfalls for Summer 2022 and appreciates the Commission's initiative to consider leveraging energy storage systems from the Self-Generation Incentive Program ("SGIP") to better achieve Summer 2022 energy reliability. SGIP has increased deployment of distributed energy storage systems significantly over the last decade. These systems work for the grid by reducing customer peak demand and have a role to play in ensuring reliability, particularly for next Summer 2022. CESA believes that the best way to achieve these ends is to continue to deploy

SGIP-funded energy storage systems as much and as fast as possible, and that reducing barriers, not adding more, will be key to achieving this goal. Therefore, CESA responds to the ruling with the following recommendations:

- SGIP should maintain its status as a technology incentive program and avoid becoming a grid-services program.
- Limited incentive funds should support greater deployment rather than paying for higher incentive payments.
- If SGIP is pursued as a means to support emergency reliability, the Commission should allocate the additional $66 million in unallocated funds as soon as possible to allow more projects to be deployed.

II. SGIP SHOULD MAINTAIN ITS STATUS AS A TECHNOLOGY INCENTIVE PROGRAM AND AVOID BECOMING A GRID SERVICES PROGRAM.

SGIP was established as a technology incentive program to increase the deployment of distributed energy resources ("DERs") that advance the goals of the program as outlined in statute[1] and in D.16-06-055. These include the environmental goals of reducing greenhouse gas emissions ("GHGs") and criteria air pollutants, as well as grid-support goals of reducing or shifting peak demand, improving efficiency and reliability of the distribution and transmission systems, lowering grid infrastructure costs, providing ancillary services, and ensuring customer reliability. Lastly, SGIP has an important goal of transforming the market for eligible DERs in support of the two aforementioned goals.

While SGIP includes minimum operational requirements and the broader goal of providing grid services, the Commission has repeatedly made determinations that affirmed that the program is a technology incentive program and that rebates are not payments for grid services. For example, the Commission, when establishing pilots to test novel procurement frameworks in the Distribution

[1] *See* Cal. Pub. Util. Code § 379.6

Investment Deferral Framework ("DIDF"), clarified that "SGIP incentivizes customers to install storage technology" [2] and, in contrast, "that payments distributed energy resources receive for enrollment and participation in this pilot are in return for a service provided, and therefore not an incentive." [3] Prior to this decision, the Commission also affirmed that DERs can provide grid services that are not compensated for via SGIP incentives in Resolution E-4889.[4] Likewise, in this proceeding, the Commission has instead allowed for dual participation in SGIP and other demand response ("DR") programs. In D.19-08-001, the Commission clarified that, in contrast to SGIP, "customer payment or reduced rates received for enrollment in an economic DR program integrated into the CAISO or the DRAM is considered payment for services, not an incentive."[5] In all of these instances, the Commission has recognized that SGIP is meant to encourage energy storage adoption, and therefore does not require energy storage systems to have a specific dispatch schedule to provide a specified grid service. Instead, SGIP systems are required to meet minimum operational and GHG emissions reduction requirements and are allowed to receive additional payments for these services, in recognition that these services are incremental benefits above the technology deployment incentives provided via SGIP. This is reflected in the SGIP incentive structure, where incentives are determined based on total system capacity, instead of being based on the value of energy or capacity provided to the grid.

Including an incentive adder for reliability grid services, with requirements to enroll in specific grid service programs, will muddle the clear distinctions the Commission has drawn between SGIP technology incentives and incremental payments SGIP systems are eligible for if

[2] *See* D.21-02-006 at 82
[3] *See* D.21-02-006 at 51
[4] *See* Resolution E-4889 at 26
[5] *See* D.19-08-001 at 66

those systems enroll in grid-service programs or enter into contracts to provide specified services. As adopted in D.16-12-036, ratepayers should not be paying for the same service twice; however, DERs are able to provide multiple services and should be compensated for each additional service incrementally.[6] Incorporating additional SGIP incentives to provide grid services creates confusion about whether ratepayers will be paying for these grid services twice, or instead, whether SGIP systems will lose incrementality and be unable to receive standard payments from other programs. A much clearer solution is to maintain SGIP as is and allow systems to earn incremental grid-service payments from enrollment in the Emergency Load Reduction Program ("ELRP") or other programs or by entering into virtual power plant ("VPP") contracts with load-serving entities ("LSEs").

III. LIMITED INCENTIVE FUNDS SHOULD SUPPORT GREATER DEPLOYMENT RATHER THAN PAYING FOR HIGHER INCENTIVE PAYMENTS.

While the Commission is well-intentioned and smartly seeking ways to leverage SGIP energy storage systems to increase system reliability, the proposal to increase incentive levels (*e.g.*, via incentive adders) for SGIP-funded projects to provide a grid reliability service will lead to less funds being available for a greater number of projects. Currently, most of the Equity Budget ("EB") and Equity Resiliency Budget ("ERB") are fully subscribed, and additional projects have been backlogged on waitlists. The availability of higher incentives for energy storage systems committed to supporting emergency reliability, particularly when the program has extremely limited funds, will lead to a smaller number of projects being deployed and operational as these projects capture a disproportionate share of available funds, thus limiting the number of customers who can benefit from energy storage systems to support a wide range of pressing objectives, such

[6] *See* D.16-12-036 at 18-19

as distribution resiliency, customer bill management, and/or equitable access for low-income and disadvantaged customers.

Currently, the program currently offers a Resiliency Adder of $0.15/Wh for qualifying large-scale storage projects. By way of example, if the Commission were to authorize the same $0.15/Wh as a "Reliability Adder", Steps 3 and 4 of the program (the current steps for the PAs) would support up to 39,000 fewer kWh of storage and up to 125 fewer projects in the Large-Scale Storage Budget. For obvious reasons by extension, the higher the incentive adder, the fewer the number of projects will be deployed using existing available funds.

Table 1: Number of kWh and Projects Supported in the Large-Scale Storage Budget with $0.15/Wh Reliability Adder[7]

	kWh Supported	**Number of Projects Supported**
No projects receiving a $0.15/Wh Reliability Adder	125,367	401
All projects receiving a $0.15/Wh Reliability Adder	86,124	275
Difference between no projects and all projects receiving a $0.15/Wh Reliability Adder	39,243	125

Given this significant difference in project deployments and potential projects supported, the Commission should instead consider other solutions that could incentivize or encourage enrollment in new or existing DR programs, such as the recently established and launched ELRP. In fact, the ELRP has already established a $1/kWh energy-only payment for voluntary response to grid emergencies announced by the California Independent System Operator ("CAISO"), and Energy Division staff have proposed an increase of the payment to $2/kWh.[8] Whether this form

[7] PA incentives were calculated using each PA's current step: Step 3 for Center for Sustainable Energy ("CSE"), Southern California Edison ("SCE"), and SoCalGas ("SCG"), and Step 4 for Pacific Gas & Electric ("PG&E"). Data based on the Weekly Statewide Report released August 16, 2021 on selfgenca.com.

[8] *See* "Energy Division Staff Concept Paper Proposals for Summer 2022 and 2023 Reliability Enhancements" sent August 16, 2021.

of compensation (*e.g.*, energy-only versus capacity) or the level of compensation in exchange for the emergency reliability service is appropriately structured and set may be reconsidered in proposals and testimony in R.20-11-003; regardless, the ELRP participation and payment structure essentially provides the grid-service incentive for SGIP-funded projects to support emergency reliability for Summers 2022 and 2023, providing the same function that an SGIP Reliability Adder would provide without decreasing the total pool of projects that could enroll in such a program. To the same end, SGIP-funded projects can participate in the Capacity Bidding Program ("CBP"), Base Interruptible Program ("BIP"), and Demand Response Auction Mechanism ("DRAM"), such that the Commission should instead direct its attention to measures that would encourage their participation in those programs and enable their full utilization.[9]

In sum, since it is important to bring as many systems online as possible before Summer 2022, rather than discussing the merits of and developing the details surrounding a new reliability adder, CESA believes that it is a more efficient use of time and resources to focus on grid-service program modifications to support emergency reliability needs and keep SGIP incentives as-is to support more projects.

IV. IF SGIP IS PURSUED AS A MEANS TO SUPPORT EMERGENCY RELIABILITY, THE COMMISSION SHOULD ALLOCATE THE ADDITIONAL $66M IN UNALLOCATED FUNDS AS SOON AS POSSIBLE TO ALLOW MORE PROJECTS TO BE DEPLOYED.

Undoubtedly, SGIP systems can contribute to emergency reliability goals, and with many of the significant reforms adopted and implemented for the program, many projects can come

[9] Some of these ideas will be introduced in testimony on September 1, 2021 in R.20-11-003, including a higher authorized budget for the next DRAM auction or through modifications to recognize the "enhanced" DR provided by storage-backed DR resources. Furthermore, even in participating in these DR programs and solicitations, the Commission should also direct its attention to fully enabling and compensating storage export capabilities, which is adopted for the ELRP, CBP, and BIP, but there may be additional barriers or issues to address.

online relatively quickly. Depending on the complexity and size of the project, many energy storage systems could come online within the next 6-12 months.[10] Fortunately, there is an immediate means to support and deploy more energy storage projects that can be available to enroll in and participate in grid-service programs and opportunities targeted at providing capacity and emergency reliability.

Given these urgent needs for resiliency and emergency reliability in the near term, the Commission should focus on increasing deployment within the existing SGIP budget categories by immediately allocating nearly $66 million in unspent funds from accrued interest. On April 16, 2021, Commissioner Clifford Rechtschaffen issued a Ruling asking for party input on the allocation of unspent and unallocated funds that the PAs have accumulated, along with addition program design considerations for heat pump water heaters ("HPWHs"). While party comments were submitted in June 2021, the Commission announced on August 4, 2021 that a Proposed Decision on this matter and the implementation of HPWHs within SGIP would not be released until December 2021 or January 2022.[11]

In light of this update, CESA echoes its previous recommendation that the Commission determination regarding the allocation of unspent funds be decoupled from the implementation of HPWH incentives within SGIP. These are wholly distinct issues, where the allocation of unspent funds represents a simpler issue of aligning funds with Commission goals or priorities, but otherwise not requiring program rules or process changes that would warrant deeper review and consideration. By contrast, HPWH participation in the program is understandably taking more time

[10] The average number of days between application submission and interconnection dates for all energy storage budgets is 232 days. For non-residential projects in the Large-Scale Storage and Non-Residential Equity budgets, the average number of days between application submission and interconnection is 374 days. Data based on the Weekly Statewide Report released August 16, 2021.

[11] *See* "Email Ruling Updating Procedural Schedule" sent August 4, 2021.

because program design is being modified more substantially in recognition of the unique and distinct processes by which HPWHs are installed, paid incentives, and measured. Given the urgent need to get as much resource capacity to be available and committed to support emergency reliability, the coupling of these two matters is an unnecessary procedural roadblock, especially as the record has been developed via comments to the Commissioner's April 16, 2021 Ruling. The sooner these funds are released to budget categories, the sooner projects can begin, increasing the amount of SGIP projects online for Summer 2022.

V. RESPONSES TO QUESTIONS.

Question 1: Could higher SGIP incentives for certain SGIP budget and/or customer categories help contribute to grid reliability by summer 2022, by reducing peak loads? Which SGIP budget and/or customer categories have the greatest potential to contribute?

CESA commends the Commission's focus on leveraging SGIP for summer 2022 reliability, but the Commission and PAs should focus on increasing deployment across all budget categories in the coming months to ensure that systems are interconnected by Summer 2022 and are made available to enroll in and participate in ELRP and other DR programs and solicitations, as discussed above.

Additionally, SGIP has just recently opened itself to large thermal energy storage ("LTES") applications.[12] LTES is particularly suited to help reduce peak loads during extreme heat events that cause emergency reliability conditions.[13] By increasing funding in the existing energy storage

[12] *See* "Southern California Gas Company (SoCalGas) AL 5750-G/-A, Pacific Gas and Electric (PG&E) Company AL 4356-G/-A/ 6046-E/-A, Southern California Edison (SCE) AL 4387-E/-A, and Center for Sustainable Energy® (CSE) AL 121-E/-A, Proposed Dynamic Methodology for Large Thermal Energy Storage Incentive Calculations and Updates to the Self-Generation Incentive Program (SGIP) Handbook in Compliance with Ordering Paragraphs 2 and 3 of Resolution E-5106." sent July 13, 2021.

[13] *See* CESA Opening Testimony in R.20-11-003 at 26.

budget categories via the allocation of unspent funds, customers will have a better opportunity to deploy LTES systems within the next year. Notably, LTES systems have faster deployment timelines compared to electrochemical storage since these systems do not go through the interconnection process. Thus, by allocating some level of unspent funds to the Large Energy Storage Budget category, the Commission can make incremental funding available for incremental LTES deployment that directly addresses some of the identified emergency reliability needs in short order.

Question 2: If higher SGIP incentives are offered to help contribute to grid reliability by summer 2022, should customers receiving the incentive be required to participate in a demand response aggregation program, or other demand response program? If so, which existing or proposed demand response programs should they be required to participate in? How long should participation be required? If higher incentives are offered, what amount do you recommend?

As explained above, customers that receive SGIP incentives are eligible to participate in DR programs and receive incremental payments to provide those grid services. Although higher incentive payments may encourage participation, further clarification needs to be given about whether customers would continue to be eligible for the standard payments from those programs or other grid-service payments. Therefore, instead of spending existing available funds to increase SGIP incentive levels, CESA recommends that the Commission maintain current incentive rates to support more projects.

Question 3a: Should the Commission require new SGIP storage systems receiving any higher reliability incentive to enroll in a market-integrated residential or non-residential demand response program, the recently adopted out-of-market Emergency Load Reduction Program (ELRP), or a dynamic rate option (such as Critical Peak Pricing (CPP), or Real Time Pricing (RTP)? Should such a requirement be tied to higher incentives? If so, what amount?

Generally, CESA does not believe that SGIP systems should be *required* to enroll in a specific or small subset of DR programs or in dynamic rate options since D.19-08-001 purposefully provided optionality for customers to enroll in a menu of eligible rates and/or programs that are the right fit for them, so long as they meet the program's goals and minimum operational requirements. As explained above, SGIP has been repeatedly affirmed as a technology incentive program. To encourage dual participation of SGIP energy storage systems in these grid-service programs or dynamic rate options, the Commission should seek to understand barriers to energy storage participation in these grid-service programs or rates and identify the appropriate remedies therein. For example, rather than offering higher SGIP incentives or adders to secure their participation in these programs or rates, which would in turn reduce the number of storage systems, the Commission should seek to understand whether these DR programs are structured or compensated in a way that fully recognizes the capabilities and value provided by energy storage resources.

<u>Question 3b</u>: Should new residential SGIP energy storage participants with solar receiving any higher reliability incentive be required to select a Virtual Power Plant aggregator and participate in the ELRP? Are there any downsides to the Commission requiring default enrollment into ELRP for new SGIP energy storage participants receiving a higher reliability incentive?

CESA does not believe that energy storage SGIP customers should be required to participate in an aggregation and/or ELRP. As discussed above, CESA does not support a higher reliability incentive and does not believe that energy storage SGIP customers should be *required* to participate in an aggregation and/or ELRP since this reduces customer choice and does not allow customers to use their systems in the way that works best for them. Even if the ELRP is a voluntary-only program with after-the-fact, pay-for-performance payments, ELRP also the downside of not

allowing customers to participate in other DR programs, outside of the Base Interruptible Program ("BIP"), that might be better fits for them.[14]

However, CESA does support ELRP as a program, and believes that additional measures could encourage participation by SGIP customers. One way to increase enrollment is to give non-NEM energy storage systems provisional export permissions. By allowing these systems to export on an emergency basis, more systems will be able to participate in ELRP and fully utilize their capabilities. Additionally, ELRP should be advertised to customers who have already installed systems. The voluntary, energy-only payments from ELRP might not be enough to incentivize customers to invest in new systems; however, existing SGIP customers with installed systems may find their system is able to provide these grid services and be made eligible for these additional payments.

Question 3c: Should the Commission require new SGIP energy storage systems receiving any higher reliability incentive to be "future proof" (grid interactive, control system upgradeable over a network, able to respond to hourly or 15-minute or 5-minute real time prices, and able to participate in Virtual Power Plant aggregation services)? What steps should the Commission consider to support future-proofing energy storage systems?

As discussed above, CESA does not support a higher reliability incentive and thus does not recommend requiring control systems for market participation or aggregations. While incentives are not designed to be payments for grid services, SGIP rules ensure projects provide a minimum level of grid services through the existing GHG signal and the enrollment of SGIP customers in appropriate programs or rates, which should generally align with grid needs and value. Additional controls or VPP interoperability should only fit where appropriate. While CESA is strongly supportive of a VPP future and advanced storage/inverter controls, such issues may need to be

[14] *See* D.21-03-056 Attachment 1 at 5.

addressed in the appropriate proceeding (*e.g.*, R.17-07-007, R.21-06-017), and it is important to be reminded that energy storage systems that respond to appropriately aligned retail rates still provide grid and environmental value in line with the program's overarching goals.

Question 3d: Should the Commission require SGIP host customers receiving any higher reliability incentive to provide annual hourly charge, discharge, and state of charge data to the California Energy Commission or researchers authorized by this Commission for summer reliability research purposes?

CESA is supportive of having data on system performance available for reliability research, but it is unclear whether data collection for these research efforts should be above and beyond what is currently in place for GHG compliance purposes for non-residential projects and broader evaluation efforts for all customers. Instead, the California Energy Commission ("CEC") or other researchers should leverage data made available through existing data collection channels in place for GHG compliance and evaluation in order to not impose an additional administrative burden by duplicating these efforts for different ends.

Question 4: Do you have other suggestions to increase the contribution of SGIP technologies to summer reliability?

While CESA opposes requiring customers to enroll in specific DR programs, dynamic rates, or other forms of aggregation, SGIP should encourage these programs and use the SGIP application process to educate and advertise these other programs. The SGIP application process could provide spaces to educate customers about other programs and collect information about interest or the desire to sign up. The PAs and/or developers could then share next steps of how to sign up. Alternatively, the Commission could consider how to streamline applications to allow customers to use the SGIP application to apply to multiple programs at once.

The PAs should also consider how to use advertising and promotion to share these programs with existing SGIP customers. To date, SGIP has deployed over 350 MW of energy

storage.[15] Given that many budget categories of SGIP have been fully subscribed and now have waitlists, existing SGIP customers have a large potential to contribute to reliability needs by enrolling in additional DR programs. As mentioned above, the voluntary, energy-only payments from ELRP might be more attractive to existing SGIP customers with installed systems.

Furthermore, the Commission should seek to develop solutions to enable and compensate the full export capability of energy storage systems to address emergency reliability needs. In particular, with D.20-01-021 allowing energy storage systems in ERB to be oversized beyond the previous 12-month peak demand to accommodate modular systems,[16] these customers may be good candidates to supply excess load reduction capacity to participate in DR programs that may not be fully needed for an emergency reliability event since such systems were sized for larger and longer distribution-related outages. Additionally, oversized systems may also have more stranded export capacity that could be made available for a system-wide emergency reliability event since these systems are sized and configured to support the customer's multi-day outage needs, whereas the storage discharge capacity may be in excess of a customer's load during any single day; if incentivized to participate in ELRP or other DR programs and enabled to provide its full export capacity, ERB energy storage systems may be high-potential assets in a system-wide emergency reliability event. While these solutions will likely be addressed in other proceedings, we highlight the intersection of these issues with that of potential SGIP projects that could support emergency reliability, even if the main role of SGIP should be in increasing the deployable capacity of energy storage systems available to the grid to participate in grid-service programs or solicitations.

[15] Data based on the Weekly Statewide Report released August 16, 2021.

[16] *See* D.20-01-021 at 72

VI. CONCLUSION.

CESA appreciates the opportunity to submit these comments on the Ruling and looks forward to working with the Commission and other stakeholders in this proceeding.

Respectfully submitted,

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