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

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| Order Instituting Rulemaking Regarding Microgrids Pursuant to Senate Bill 1339. | Rulemaking 19-09-009 (Filed September 12, 2018) |

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON THE ADMINISTRATIVE LAW JUDGE'S RULING REQUESTING COMMENTS ON TRACK 1 MICROGRID AND RESILIENCY STRATEGIES STAFF PROPOSAL**


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


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In accordance with Rules of Practice and Procedure of the California Public Utilities Commission ("Commission"), the California Energy Storage Alliance ("CESA") hereby submits our comments on the *Administrative Law Judge's Ruling Requesting Comments on Track 1 Microgrid and Resiliency Strategies Staff Proposal* ("Ruling"), issued on January 21, 2019.

## I. INTRODUCTION.

After the experiences with catastrophic wildfires in 2017-2018 and public safety power shut-off ("PSPS") events in 2019, CESA understands the Commission's urgency in taking actions in the short term to support resiliency solutions ahead of the 2020 wildfire season. In particular, CESA appreciates the Commission holding a workshop in the Microgrids proceeding (R.19-09-009) on December 12, 2019 as well as the Interconnection Discussion Forum ("IDF") in the Rule 21 proceeding (R.17-07-007), where short-term proposals were presented at the workshop, submitted with more detail in follow-up informal comments, and largely included in the Staff Proposal with some modifications. In our view, most of the short-term 2020 actions that can be taken by the Commission would be the reduction of barriers to deploying microgrids and other resiliency solutions, with one of the chief barriers being the long time required to interconnect resiliency technologies such as energy storage with islanding capabilities.

In addition to the Staff Proposal, the investor-owned utilities ("IOUs") each proposed new microgrid investments, programs, or approaches to support short-term 2020 actions and reported on other activities where they are pursuing wildfire mitigation measures and distribution infrastructure investments (*e.g.*, grid hardening, sectionalization). Given the urgency and importance of doing everything within reason to mitigate or minimize the impact of wildfire risks or PSPS events to customers, CESA supports the IOUs' efforts to identify near-term initiatives and activities.

However, while the prospect of a repeat of the 2019 PSPS events and 2017-2018 wildfire events create urgency and require some exceptional measures and processes to mitigate the risks of such events, a long-term and sustainable framework is needed to more comprehensively develop resiliency solutions that identify, assess, and prioritize locations and customers for resiliency solutions, ensure competitive and cost-effective outcomes, align the solutions with the state's various policy goals (*e.g.*, decarbonization, equity), and reduce barriers for all types of resiliency solutions. Specifically, the various IOU proposals will likely deliver resiliency to customers in need in the short term, but given the compressed timeline to review and approve proposals and the limited ability to flesh out certain investment or programmatic details, the Commission and stakeholders are unable to assess whether the proposed resiliency solutions represent the best alternative. Furthermore, the IOUs are afforded significant levels of discretion on their proposals, which may be appropriate to some degree at this time due to the short timeframe until the next wildfire season arrives, but a sustainable framework that lays out the principles and standards of review for future resiliency solutions and opportunities is needed to allow for the consideration of third-party proposals and solutions as well.

In sum, CESA recommends that the Commission assess the Track 1 IOU proposals as *not* being precedent setting, and to the degree possible, frame, modify, and/or structure the approval of the IOU proposals to be temporary or conditional in nature (*e.g.*, authorize for one or two year(s) of funding). Considering that some of the proposals could have long-term implications as larger capital investments, it may be more complicated to conditionally or temporarily approve such proposals; instead, CESA recommends that such proposals should be scoped to a smaller scale (*e.g.*, pilot) that could be expanded upon review of any available preliminary data results and reassessed within the longer-term framework's guiding principles and policies.

Finally, CESA recommends that many of the questions posed in the Ruling would be appropriate to consider as well in Track 2 of this proceeding in the process of developing a long-term framework. Since the ALJ did not grant an extension for the comments deadline in response to the Ruling, CESA found it challenging to provide detailed and insightful responses to a number of questions posed. Understandably, time is of the essence to get short-term 2020 resiliency solutions in place by September 2020, but the questions are numerous and touch on important issues that could inform the long-term framework. As such, these issues may need to be reassessed through the lens of a sustainable and effective long-term framework as the Commission develops its guiding principles and policies.

In the below sections of our comments and responses to the questions posed in the Ruling, our recommendations can be summarized as follows:

- A long-term framework is needed to more comprehensively assess microgrid and resiliency needs and opportunities and to identify the most effective solution(s) to address them.
- Though the IOU proposals, with modifications and further information, may be reasonable to approve in the short term, the Commission should reassess any 2020 strategies and proposals within the principles and processes of a long-term framework.

- The Commission should assess the Track 1 IOU proposals as *not* being precedent setting, and to the degree possible, frame, modify, and/or structure the approval of the IOU proposals to be temporary or conditional in nature.

- To the degree possible, the IOUs should be directed to consider tariff-based sourcing mechanisms or approaches in addition to or instead of competitive solicitations.

- CESA supports the use of standardized microgrid template designs in the interconnection application process that are submitted by developers and pre-approved by the IOUs.

- CESA supports the elimination of duplicative inspections and the use of remote inspections to the degree possible, including through the incorporation of sampling protocols, to expedite interconnection approval.

- Proposals around interconnection queue jumping or separate queues should not be adopted at this time since they raise a number of cost allocation and study concerns; instead, additional IOU staff resources dedicated to interconnection will support resiliency solution deployment.

- The pilot proposal to use smart meters for intentional islanding should be adopted given the tremendous potential to scale a relatively low-cost resiliency resource in future years; reliability concerns related to the proposal can be addressed in the pilot development process as well as tested during the pilot operation stage.

- The storage charging and capacity limit proposals in the Staff Proposal should be adopted since they maximize resiliency capabilities and can readily address Net Energy Metering ("NEM") integrity concerns; overly prescriptive charging and burdensome reporting requirements should be avoided.

- Proposals around data access and information should be broadened to include a wider range of customers and third-party developers who may also benefit significantly from such information to strategically site and develop resiliency projects.

## II. A LONG-TERM FRAMEWORK IS NEEDED TO MORE COMPREHENSIVELY ASSESS MICROGRID AND RESILIENCY NEEDS AND OPPORTUNITIES AND TO IDENTIFY THE MOST EFFECTIVE SOLUTION(S) TO ADDRESS THEM.

CESA understands that the Commission is only considering short-term 2020 actions and proposals that can be implemented by September 2020 ahead of the upcoming wildfire at this time as part of Track 1 of this proceeding. Such urgency and expediency are understandable in emergency situations where anything that can be done to mitigate wildfire risks and the impact of PSPS outages requires action now. Emergency measures often require a suspension or exemption to certain normal practices or processes. However, given the urgency of deploying and implementing resiliency solutions in short order, CESA has found it difficult to thoroughly assess various proposals for alignment with policy goals, effectiveness to addressing the resiliency need, and competitiveness to identify the best and most cost-effective alternatives.

To support a more thorough and comprehensive assessment of microgrid proposals, a long-term framework is needed to identify and scope resiliency needs and to evaluate the most effective solutions to address them. Though the Ruling does not seek to address such long-term frameworks at this time, CESA raises this issue here in these comments because the 2020 PSPS Microgrid Pilot proposal from Southern California Edison Company ("SCE") represents a solid foundation in which a long-term framework could be developed, refined, and enhanced. In assessing the various IOU proposals, SCE more comprehensively assessed resiliency needs and set up a possible framework that could yield a potential repeatable process beyond 2020 through a range of data points that they plan on collecting to assess improvement areas.[1] By contrast, Pacific Gas and Electric Company ("PG&E") proposes microgrid investments with less transparency into the reasonableness of the service requirements, location, and solicitation structure, while San Diego Gas and Electric Company ("SDG&E") only seeks Commission approval for investments that enhance their existing microgrids. The approaches taken by PG&E and SDG&E are less scalable beyond 2020 and are more difficult to assess.

[1] *Southern California Edison Company's (U 338-E) Resiliency Proposal and Response to Administrative Law Judge's Ruling* ("SCE Response") filed on January 21, 2020 in R.19-09-009 at 5-8.

One of the key appeals of SCE's 2020 PSPS Microgrid Pilot is that it resembles a transparent and more comprehensive Distribution Investment Deferral Framework ("DIDF") established in the Distributed Resources Planning ("DRP") proceeding. While the DIDF is not without its flaws, the planning and review process in coordination with the Distribution Planning Advisory Group ("DPAG"), consisting of non-IOU stakeholders, has provided greater transparency into the full range of distribution investment needs across the five-year forecasted planning years. This transparency has served to enable stakeholders to provide input and feedback into how service requirements could be established and defined to enable non-wires alternatives to compete to deliver the capacity or reliability benefits of a traditional wires investment. A technical and timing screening process is followed by a prioritization process based on the viability of distributed energy resources ("DERs") to defer/avoid the need (*e.g.*, time to deployment, magnitude and duration of need) and the economic savings potential with DER alternatives (*e.g.*, high unit cost of traditional mitigation), among other factors. Furthermore, principles of technology neutrality and market potential of alternative solutions are in place to invite a wider range of solutions. Though tariffs have yet to be developed, tested, and implemented within the DIDF, the foundation of data, information, and stakeholder collaboration is in place to support the eventual development of alternative sourcing mechanisms such as tariffs.

CESA sees many parallels to the DIDF that could be incorporated and customized, as necessary, to the microgrid programs, tariffs, and investments context in Track 2 of this proceeding. SCE has highlighted some of these potential parallels as part of their 2020 PSPS Microgrid Pilot and the process by which they have identified six locations for potential microgrid investments. Unlike the other IOU proposals where questions are raised around how particular microgrid investments were identified, scoped, and defined, SCE broadly assesses microgrid and resiliency needs in a clearer and more transparent way, which supports stakeholder and Commission input, feedback, and review on particular investments.[2] In contrast to traditional distribution planning standards, CESA believes that the lack of resiliency-related planning standards leads to the importance of having such transparent screening and prioritization process to comply with the various requirements of Senate Bill ("SB") 1339 (*e.g.*, cost shifting) while providing a sufficient basis for approval, which could be justified based on key Commission objectives to reduce the impact of PSPS events (*e.g.*, similar to SCE's PSPS experience criteria) or to prioritize low-income and disadvantaged community ("DAC") customers. In addition, there appears to be tremendous potential for this transparent and comprehensive process to support the development of microgrid tariffs, which can support the deployment of wider scale, more autonomous deployment of third-party resiliency solutions through the availability of information on broader resiliency needs, especially for projects that were not identified as priority larger-scale microgrid investments. Finally, this process could inform the calculation of the value of resiliency in Track 2 of the proceeding, which should extend beyond the avoided cost of traditional infrastructure investments.

In conclusion, CESA believes that SCE's pilot proposal represents a good starting point for a long-term framework to support the development of microgrid programs, investments, and tariffs going forward in this proceeding. Currently, there is asymmetry in information that the IOUs hold that creates challenges in assessing their proposed investments and limit the scope of microgrid solutions to be those that are presented and proposed by the IOUs. Instead, with a more

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[2] SCE explained that the six candidate sites were shortlisted based on PSPS experience criteria (62 circuits with 2 or more), location in HFTD with underground service or outside HFTD with overhead line (36 circuits), whether existing mitigation measures are in place (25 circuits), and other factors (customer type, total load, required modifications). SCE's screening and prioritization criteria represents a good start that could be shaped as part of Track 2 framework development.

transparent and comprehensive process, modeled to a degree after the DIDF and SCE's pilot approach, greater levels of information can be shared with stakeholders on microgrid and resiliency needs, which can then inform the consideration of the best and most cost-effective resiliency solution as well as the utilization of multiple sourcing channels beyond IOU-proposed and -run competitive solicitations and programs, including autonomous third-party or customer development and/or tariffs.

## III. RESPONSES TO QUESTIONS ON PRIORITIZING INTERCONNECTION APPLICATIONS TO DELIVER RESILIENCY SERVICES AT KEY SITES AND LOCATIONS.

One of the key barriers to single-premise microgrid solutions is interconnection. According to our members, larger-scale energy storage interconnections for resiliency can take 12-18 months from interconnection application to permission to operate ("PTO"). No matter the incentive amount given to storage projects to support their deployment for resiliency, such as through the Self-Generation Incentive Program ("SGIP"), technical interconnection barriers must be addressed to enable customers to take advantage of these valuable resources. As such, CESA appreciates the Commission's acceptance of the interconnection proposals and ideas submitted by CESA and other parties from the IDF into the Staff Proposal. The proposals recommended in the Staff Proposal will better facilitate immediate and scalable standalone and paired storage deployments that can support near-term customer resiliency while ensuring safe and reliable interconnections.

Below, CESA provides our responses to a subset of questions posed on the implementation details, but we also note that additional work is needed to address interconnection barriers and streamline review processes for not just single-premise solar and storage projects but also for multi-premise, multi-technology projects in Track 2, where technologies beyond solar and storage may be needed to provide the customer's required/desired level of resiliency.

**Question 1**: **Please indicate support of or opposition to the adoption of each proposal and justify the rationale. For the proposals that include implementation options, please indicate which options should be supported or opposed and why.**

**Proposal 1: Use pre-approved designs in application process.** Support Option 1. CESA is strongly supportive of the proposal to move away from site-specific designs to template-based designs for solar-plus-storage systems that provide customer resiliency by operating in either isolated operation or backup mode. Rather than having utility engineers assess every specific site design, a shortlist of pre-approved designs via a single-line diagram ("SLD") that would be eligible and processed, possibly through the Fast Track process, would greatly reduce the interconnection review time needed to reach PTO. Templates should include utility-approved equipment lists, including certified automatic transfer switches ("ATS") with suitable status signal lines, critical sensors, isolation and black-start transformers, grid-forming inverters, and genset meters and contactors, among others. In CESA's experience, developers will generally standardize their system configurations that they submit for interconnection review, such that pre-approved and standardized templates by each of the major developers could facilitate the deployment of single-premise microgrid solutions (*e.g.*, Template X for NantEnergy, Template Y for Tesla, Template Z for Stem).

**Proposal 2: Expedite utility sign-off on installed projects.** Support with modifications. CESA supports the sub-proposals to: (1) eliminate inspections that are duplicative of those performed by local jurisdictions; and (2) consider "remote inspections" by accepting photos or videos provided by the contractor rather than requiring an in-person inspection. For the former, many single-premise storage-backed resiliency projects will already be subject to inspections and documentation performed by local jurisdictions, which is also specified as a condition of claiming SGIP Equity Resiliency incentive funds for certain project types. Duplicating these efforts would unnecessarily slow down deployments. For the latter, the waiving of witness commissioning in favor of virtual photo inspection could save two to three weeks in the interconnection process and allow the IOUs to better dedicate its resources to processing additional interconnection applications.

However, the sub-proposal to publish the specific technical criteria used to determine under which conditions field inspections are necessary for the safety and reliability of the grid should be modified to incorporate a sampling protocol to reduce the interconnection timeline burden if interconnection applicants have successfully installed and field tested some threshold number of template projects (*e.g.*, first five projects using a specified and approved template-based design). Since developers are likely to utilize specified template-based designs, it is reasonable to utilize virtual photo inspections after some initial level of successful demonstration through field inspections. To fully leverage the benefits and scalability of template-based designs, virtual photo inspections should be pursued wherever possible, especially after they have demonstrated in the field to be safely and reliably configured and installed.

**Proposal 3: Prioritize interconnection of key locations, facilities, and/or customers.** Oppose Option 1 and 2 but support Option 3. CESA does not support projects to be able to bypass the interconnection queue at this time. Queue jumping raises equity and cost allocation concerns that need to be worked out in either the Rule 21 proceeding or in Track 2 prior to consideration for adoption. Similarly, a separate interconnection queue also seems infeasible at this time since there are concerns about the interconnection impacts study process, which requires an understanding of other projects in the queue ahead of a given project. Assessing the collective impact of multiple projects presents challenges and could create broader interconnection delays. Instead, to support prioritization of interconnection of resiliency projects at critical and other key facilities, CESA recommends that the Commission use other tools, such as the integrated capacity analysis ("ICA") data and maps on hosting capacity availability. In addition, the IOUs could support this targeting by providing technical interconnection-related assistance to certain customers and inform them of how they can manage streamlined interconnection review through the use of standard templates, if so desired.

While opposing Options 1 and 2 under this proposal, CESA supports Option 3. Committing additional resources to the IOUs' respective interconnection study and distribution planning teams will go a long way in supporting a higher volume of resiliency projects to get interconnected. This proposal seems to be a relatively straightforward and reasonable supplement to the other proposals related to interconnection barriers and streamlining.

**Proposal 4: Use of smart meters for intentional islanding.** Support. This was a proposal jointly presented by 33 North Energy and CESA at the December 16, 2019 IDF that staff did "not recommend … for adoption at this time"[3] in the Staff Proposal. CESA disagrees with the staff recommendation and urges the Commission to reconsider support for this pilot proposal. Utility smart meter remote disconnect switches may offer customers affected by PSPS outages an alternative method to connect batteries, generators, or other devices (such as a V2G-AC system) to a transfer switch installed behind the customer's meter. Specifically, this proposal is premised on the utility being able to turn off and disconnect service at the meter prior to section or circuit de-energization, thus intentionally islanding the customer from the distribution grid. When islanded with a transfer switch,[4] the customer could use backup power sources that are not usually allowed for interconnection and parallel operation with the grid (*e.g.*, V2G AC systems), as well

[3] Staff Proposal at 10.

[4] This backup power transfer device (ConnectDER) is a UL-listed meter socket mounted device offered by Connect California.

as resources that are able to interconnect and operate in islanding mode. The open smart meter disconnect protects the grid from generator backfeed and allows the utility complete control of the disconnect and reconnect process.

Given the investment made by the state in advanced metering infrastructure ("AMI") network, CESA believes that there is a cost-effective opportunity to smartly leverage these investments to support outage management procedures related to PSPS events. Across utilities in the nation, AMI systems are leveraged to not only enable interval billing but also integrated within outage management systems ("OMS") to enhance identification of probable incidents as well as to enable remote service disconnects due to customer non-payment or for emergency load management. Smart meters deployed today have such advanced capabilities that could be leveraged further to enable customers to deploy clean and relatively cost-effective backup resources, such as vehicle-to-home ("V2H") or vehicle-to-building ("V2B") electric vehicles ("EVs").[5]

During the January 27, 2020 webinar, staff discussed their concerns with the proposal, such as reliability issues related to the latency of the AMI network to send a disconnect and re-connect signal; however, CESA believes that such concerns can be addressed through supplemental measures such as customer-based calls or other mitigating actions. Furthermore, given the longer time window in which disconnect and reconnect signals could be sent in these pre-PSPS and post-PSPS event periods, CESA wonders whether such latency issues are really a concern.

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[5] See, for example, programs in Japan that enable such a backup power use case:

Robertson, Adi. "Nissan 'Leaf to Home' charger can power Japanese homes with a car battery during outages." The Verge. 2012 May 31. https://www.theverge.com/2012/5/31/3054451/nissan-leaf-to-home-electric-charger

Gerdes, Justin. "Will Your EV Keep the Lights On When the Grid Goes Down?" Greentech Media. 2019 November 8. https://www.greentechmedia.com/articles/read/will-your-ev-keep-the-lights-on-when-the-grid-goes-down

Overall though, such concerns as well as others could be valid, but it is impossible to discern without a pilot to test this concept. The very purpose of the pilot would be to demonstrate how such a hardware and operational solution could be deployed and structured and to address key objectives that address AMI-related as well as other concerns (*e.g.*, ownership issues). Connect California has proposed a detailed pilot proposal for a modest cost that could turn out to have significant benefits to deploying low-cost resiliency solutions to a large number of customers if the pilot testing demonstrates the reliability of this solution and can then be scaled. Taken altogether, CESA believes that there is merit in developing and testing this pilot concept with one or more of the IOUs and thus recommends approving the development, funding, and deployment of this pilot for implementation prior to or by September 2020.

**Question 2:** **Are changes to any rate schedules or electric rules needed to implement any of the proposals? If so, which ones, and how do they need to be changed? Please propose specific language.**

**Proposal 1: Use pre-approved designs in application process.** No. The current Rule 21 tariff is sufficient at this time. These template SLDs would merely be undergoing the current review processes and have pre-approval for a standardized design that could streamline all subsequent review.

**Proposal 2: Expedite utility sign-off on installed projects.** No. As CESA understands it, the IOU has discretion over conducting field inspections, per Rule 21 Section D.5. In directing the IOUs to forgo field inspections in favor of virtual photo inspections under certain circumstances in the interim as a short-term measure, a tariff change is likely not required at this time. In the future, the Commission may wish to revisit this issue and consider tariff changes to set forth this process as an accepted and memorialized practice.

**Proposal 3: Prioritize interconnection of key locations, facilities, and/or customers.** Depends. Changes may only be needed to the Rule 21 tariff if the queue jumping (Option 1) or separate queue (Option 2) proposals are adopted – *e.g.*, Section E.4 and E.5 governing cost responsibility and queue assignment. Considering such substantive and potentially time-intensive changes are required to implement these options, CESA reiterates our recommendation against adopting these sub-proposals. Option 3, however, likely does not require any tariff changes.

**Proposal 4: Use of smart meters for intentional islanding.** No. If pursued, this proposal would only involve adhering to all existing rules and whatever program requirements are set forth in the pilot.

**Question 3: Is CPUC action required in order to implement any of the proposals? If so, what action would be most appropriate?**

**Proposal 1: Use pre-approved designs in application process.** Yes. Extensive Commission action is not needed. CESA only requests that a timeline by which the IOUs will solicit and then subsequently publish template SLDs be established to ensure these actions happen in a timely fashion.

**Proposal 2: Expedite utility sign-off on installed projects.** No. As CESA understands it, the IOU has discretion over conducting field inspections, per Rule 21 Section D.5. In directing the IOUs to forgo field inspections in favor of virtual photo inspections under certain circumstances in the interim as a short-term measure, a tariff change is likely not required at this time. In the future, the Commission may wish to revisit this issue and consider tariff changes to set forth this process as an accepted and memorialized practice.

**Proposal 3: Prioritize interconnection of key locations, facilities, and/or customers.** Depends. As noted above, the Commission may need to take action to direct modifications to the Rule 21 tariff if the queue jumping (Option 1) or separate queue (Option 2) proposals are adopted, which would likely be followed by an advice letter process. Considering such substantive and potentially time-intensive changes are required to implement these options, CESA reiterates our recommendation against adopting these sub-proposals. Option 3, however, would likely require the approval of an IOU proposed budget for staffing and other resources.

**Proposal 4: Use of smart meters for intentional islanding.** Yes. This proposal requires Commission action to direct one or more IOUs to work with sponsoring parties on pilot development (*e.g.*, program design, implementation, testing and evaluation framework), which could be proposed through an expedited advice letter process. Funding is also needed to support the program design and administration, as well as the rebate or incentives to support hardware/software deployment and potentially pilot customer participation.

To further this proposal with a proof-of-concept, CESA recommends that the Commission support a one-year pilot, which may require up to $1 million but could involve cost sharing by pilot participants or other agencies, such as the California Energy Commission ("CEC"). Alternatively, the Commission could direct the IOUs to establish the creation of a memorandum account to allow each of the utilities to recover the costs of funding this pilot in the next general rate case (transfer switches, engineering, administration). The actual funding amount can vary or change based on the scope of the pilot, but the more important point is that the amount of funding required to test this concept would not be significant. With Commission support of this idea, the pilot's scope and objectives could be defined to demonstrate the proposal through simulated and/or actual PSPS events. With interim and final pilot results by Q3 2020 and Q2 2021, for example, the Commission can assess and seek potential solutions to implement this on wider scale, such as developing a standardized process for customers to subscribe and apply to this type of temporary disconnection process for PSPS resiliency and operating procedures. CESA notes that, for context, that SDG&E alone is proposing to spend over $11 million in 2020-2021 on its "Backup Generator

Grant Program"[6] – none of which appears to be allocated to clean power sources, indicating it will likely be spent on diesel and gasoline generators that increase emissions.

**<u>Question 4</u>: For proposals that require CPUC action, what standards are appropriate for CPUC to use to determine whether the action is justified?**

CESA recommends the following general criteria for evaluating the interconnection proposals: (1) timeliness; (2) maintaining safety and reliability; and (3) facilitating widespread and expeditious deployment of resiliency solutions.

First, the Scoping Memo in R.19-09-009 seeks to conclude Track 1 by Spring 2020 to adopt and implement proposals by September 1, 2020. Since timeliness is the key criteria for Track 1 proposals, any Commission action should also consider whether and how the process for finalizing the proposed changes or ideas would be able to be decided within the timelines identified in the Scoping Memo. As a result, any Commission action that requires further process following the adoption of the Track 1 decision (*e.g.*, Tier 2 or 3 advice letter processes, follow-up working groups) may deter timely resiliency solutions from being deployed in time for the 2020 wildfire season.

Second, since interconnection review and study processes are intended to ensure safe and reliable interconnection, every one of these proposals should be justified on these grounds.

Third and finally, due to the widespread scope and impact of recent PSPS events, each of the proposals should be assessed for their ability to expedite the deployment and installation of resiliency solutions that can support as many customers as possible.

**<u>Question 5</u>: Should CPUC consider cost recovery for any of these proposals in this proceeding? For example, should CPUC consider cost recovery for additional IOU technical resources to support the**

[6] "Response of San Diego Gas & Electric Company with Proposals Requested by Scoping Memo and Information Requested by ALJ Ruling", filed January 21, 2020 to R.19-09-009

**intake, prioritizing, technical support, and processing of interconnection applications? Please discuss.**

Yes, Proposal 3 Option 3 (IOU staffing and resources) and Proposal 4 (remote smart meter disconnect pilot) likely requires cost recovery in this proceeding.

<u>**Question 6**</u>**:** **Are any changes to statute required to implement any of the proposals? If so, please state the Public Utilities Code section and propose language.**

To our understanding, none of the proposals and options from the Staff Proposal recommended by CESA would require statutory changes.

<u>**Question 7**</u>**:** **For each proposal,**

a. **Estimate the time required to implement the proposal; and**

b. **Estimate the IOU staff hours required to implement the proposal.**

CESA defers to the IOUs in response to this question.

<u>**Question 8**</u>**:** **For each proposal,**

a. **Estimate how much the proposal would reduce the amount of time required for interconnection; and**

b. **State the population of project types (e.g., net energy metering (NEM) solar > 30 kilowatt [kW], NEM-paired storage > 10 kW) that would benefit from this streamlining.**

**Proposal 1: Use pre-approved designs in application process.** According to our members, the interconnection timeline for single-premise (generally larger) energy storage projects seeking to provide resiliency can take as long as 18 months as a result of the need to install and integrate specialized equipment (*e.g.*, switchgear, automatic transfer switches) and the lack of pre-approved site designs in the interconnection process. It is difficult to precisely estimate an untested process, but CESA estimates that the standard template SLDs can reduce interconnection timeline for larger energy storage projects by several months. For standard smaller-scale solar-plus-storage net energy metering ("NEM") projects, a template-based approach can reduce the interconnection timeline by 5-10 days per project. Due to time limitations, in reply comments, we will try to offer some estimates of the potential population of project types impacted by the proposal.[7]

**Proposal 2: Expedite utility sign-off on installed projects.** Field inspections can add weeks to the project development timeline, depending on how effectively site visits can be coordinated with the interconnection customer. The waiving of field inspections in favor of virtual photo inspection could save two to three weeks in the interconnection process. All storage-backed resiliency projects would benefit from this proposal.

**Proposal 3: Prioritize interconnection of key locations, facilities, and/or customers.** Quantifying the impact of Option 3 (IOU staff and resources) is challenging, but this sub-proposal should be adopted since general ramping up of IOU staff and resources would benefit all types of projects and support widespread deployment of resiliency solutions.

**Question 9**: **Should any of the proposals be modified before being adopted and/or implemented? If so, please describe and justify any changes.**

**Proposal 1: Use pre-approved designs in application process.** No. CESA supports the approval of Option 1 as proposed in the Staff Proposal.

**Proposal 2: Expedite utility sign-off on installed projects.** Yes. As discussed in our response to Question 1, this proposal should be modified to incorporate a sampling protocol.

**Proposal 3: Prioritize interconnection of key locations, facilities, and/or customers.** No. CESA believes Option 3 can be approved as proposed in the Staff Proposal, though additional

[7] The challenge of precisely estimating proposal impacts is that interconnection represents one barrier to the development of resiliency projects, which also depend on financial support through SGIP, permitting processes, and customer acquisition.

guidance can be provided to the IOUs on the appropriate staffing and resources needed, which may depend on information provided by the IOUs.

**Proposal 4: Use of smart meters for intentional islanding.** Yes. Our proposed modification is to accept and approve this pilot proposal.

**Question 10:** **Are there other options for each proposal that have not been listed? If so, please elaborate on the option(s) that should be considered. Include as much detail as possible.**

CESA does not propose any other options at this time but is looking forward to seeing other ideas and may respond accordingly.

**Question 11:** **Are the three listed system types — (1) Rule 21 non-export storage, (2) NEM + Paired storage (Alternate Current [AC] Coupled and Direct Current [DC] coupled), and (3) NEM Solar — the most appropriate system types to consider in this proposal? Please justify the response. Beyond these three system types, should the utilities develop standardized single line diagrams for additional technologies or system types? If so, which technologies or system types should be prioritized and why?**

Yes, CESA believes that the three listed system types currently are and will likely continue to be the most common type of resources deployed for resiliency. With the SGIP resiliency adder and Equity Resiliency Budget in place and available starting on April 1, 2020, this will likely continue to be the case. At the same time, there may be additional technology or system types that should be allowed to be submitted to the IOUs for review and approval as pre-approved templates. For certain use cases or customer needs, CESA understands that other technologies such as renewable fuel cells may be needed to supplement solar and storage installations. Such system types should not be precluded from submitting template SLDs for IOU approval as part of Implementation Option 3, which CESA recommends for approval.

**Question 12:** **For each of the three system types described — (1) Rule 21 non-export storage, (2) NEM + Paired storage (AC Coupled and DC coupled), and (3) NEM Solar) — should a size limitation be**

**placed on projects utilizing pre-approved single line diagrams? If so, what should it be and why?**

CESA does not see a need to establish a separate size limitation to projects utilizing pre-approved SLDs since there are other rules and policies in place governing their size limitations. However, it may be helpful for the IOUs to identify and approve template SLDs based on different sizing thresholds (*e.g.*, 10 kW, up to 100 kW).

**<u>Question 13</u>: Which implementation option would be most effective and efficient for developing template single line diagrams? Please justify the response.**

In the interest of expediency, CESA agrees with staff that a working group (Implementation Option 2) is not the recommended approach at this time. CESA also agrees with staff that Implementation Option 1 identifies templates expeditiously that can maximize the deployment of as many resiliency solutions as possible for 2020. In the future, Implementation Option 3 could be pursued to allow a broader range of applicants to submit SLD templates that the IOUs can review and add to a shortlist of pre-approved templates.

**<u>Question 14</u>: What is required in the template-based interconnection application process to ensure that developers are using IOU-approved equipment to avoid delays in the review process or after a project has been built?**

As explained in our response to Question 1, templates should include utility-approved equipment lists, including certified ATS with suitable status signal lines, critical sensors, isolation and black-start transformers, grid-forming inverters, and genset meters and contactors, among others.

**<u>Question 15</u>: Under what circumstances should field inspections be required? What system installations and settings need to be verified by field inspections?**

When field inspections are already being conducted by the local authorities having jurisdiction ("AHJ"), field inspections do not need to be duplicated by the IOUs, as outlined in

Option 2 that is recommended for approval in the Staff Proposal. In addition, as explained in our response to Question 1, the use of template-based designs should facilitate the incorporation of a sampling protocol to further reduce the need for field inspection verification.

**Question 16:** **How should compliance be evaluated for Option 2?**

The interconnection applicant should provide a copy of the final building inspection report that was approved by the local AHJ regarding how the project meets all codes and standards of the permitting jurisdiction, was shown to be able to operate in island mode (*e.g.*, automatic transfer functionality), and identified the critical loads that the project has isolated.

**Question 17:** **Are there any circumstances that a field inspection should still be conducted by the IOUs even if it is duplicative of the local authority inspection?**

As explained in our response to Question 16, local AHJ documentation should be sufficient unless the IOUs make a showing that their inspections seek additional information.

**Question 18:** **How should IOUs coordinate the division of site inspection responsibilities with local jurisdictions? Should final agreements on these responsibilities be reached, how should they be formalized (e.g., signing of memoranda of understanding)?**

CESA has no comment at this time.

**Question 19:** **Should either Option 1 or Option 2 of Interconnection Proposal 3 be adopted, what criteria should be used to determine which key locations, facilities, and/or customers are prioritized in the interconnection process? When discussing, please refer to the following four sets of criteria previously published by the Commission for similar purposes. If there is preference for modification or an alternative to these four sets of criteria, please explain and justify the recommendation.**

As explained in our response to Question 1, CESA does not support either option in Proposal 3; however, in support of some of the proposals, such as those of PG&E to provide technical assistance in the development of microgrid solutions, CESA recommends the definition of "critical facilities" as set forth in D.19-05-042 in the De-Energization proceeding to be used since they strike the right balance of being sufficiently broad and targeted to support microgrid deployment of customers who would most likely be interested in interconnecting resiliency solutions.

<u>Question 20</u>: **Should either Option 1 or Option 2 of Interconnection Proposal 3 be adopted, what implementation challenges would likely need to be overcome? For each identified challenge, please suggest one or more possible paths forward.**

As explained in our response to Question 1, CESA does not support either option in Proposal 3.

<u>Question 21</u>: **Should either Option 1 or Option 2 of Interconnection Proposal 3 be adopted, please estimate the number of new, resiliency-focused projects that would enter the queue. What impact would this influx have on projects that are queued but not prioritized according to the criteria established in this proceeding?**

As explained in our response to Question 1, CESA does not support either option in Proposal 3 and thus has no estimate of the number of potential projects.

<u>Question 22</u>: **Should Option 3 be adopted, how should the IOUs be required to demonstrate compliance? For example, should each utility be required to demonstrate that they are using their full budget, as allocated in their General Rate Case, for staffing? Should the IOUs be required to open memo accounts in order to track interconnection staffing and related costs?**

CESA has no comment at this time but may respond to other parties' comments.

## IV. <u>RESPONSES TO QUESTIONS ON STORAGE CHARGING PROPOSALS MODIFYING EXISTING TARIFFS TO MAXIMIZE RESILIENCY BENEFITS</u>.

Since PSPS events occur as planned outages with some level of advanced notification, the ability for NEM paired storage systems to charge from the grid and ensure full charge ahead of the PSPS event will improve and maximize the resiliency capabilities for these customers. With the issuance of D.19-01-030 on February 5, 2019 that approved the use of UL 1741 Power Control Systems ("PCS") Certification Requirement Decision ("CRD"), NEM paired storage systems were granted an additional metering option that allows inverters to be certified to non-export and non-import modes using controls (in lieu of, for example, more expensive physical relays) in order to preserve NEM integrity. The two storage charging proposals in the Staff Proposal smartly leverage these standards to support PSPS-related applications.

**Question 1**: **Please indicate support of or opposition to the adoption of either proposal and justify the position. Please also indicate which proposal warrants most support and justify the response.**

**Proposal 1: Allow both export and import during pre-PSPS window.** Support. Allowing customers, who may be typically configured to solar-only charging (*i.e.*, export only or non-import mode), to charge from the grid in preparation for a blackout when a PSPS event is announced, the resiliency capabilities of these customers will be greatly enhanced. CESA favors Proposal 1 as simplifying the development and implementation of the control logic (*i.e.*, allowing for the solar-only charging mode to be "removed" to allow for both export and import as opposed to switching modes) as well as for not requiring systems to be certified under the UL PCS CRD to both modes.

**Proposal 2: Allow temporary transition to non-export mode during pre-PSPS window.** Support but Proposal 1 is preferred. To ensure NEM integrity, mode switching would only be allowed on exceptional basis when a PSPS event is announced to better prepare the NEM paired storage system for resiliency needs. However, such systems would need to be certified to both solar-only charging and no-export modes and would require more complex control logic. For these reasons, CESA supports Proposal 2 but favors Proposal 1 as being more readily and easily implementable.

**Question 2**: **Are changes to any rate schedules or electric rules needed to implement any of the proposals? If so, which ones, and how do they need to be changed? Please propose specific language.**

Some modifications to the NEM tariffs and interconnection agreements may be needed to reflect the ability to allow for a more expansive use of the controls-based option on an exceptional basis, which need to be defined.

**Question 3:** **Is CPUC action required in order to implement either proposal? If so, what action would be most appropriate?**

Yes, Commission action will likely be needed to expeditiously approve the minor exceptional language in the NEM tariff. According to D.19-05-042, since all PSPS-affected customers will receive a notification 24-48 hours in advance of the PSPS event, additional changes to the notification and communication protocols are not needed at this time. General improvements in notification and communication processes from the IOUs, which are being discussed in R.18-12-005, will broadly benefit all customers, including those with NEM paired storage systems.

**Question 4:** **If CPUC action is required, what standards are appropriate for CPUC to use to determine whether the adoption of either proposal is justified?**

The Staff Proposal outlines the appropriate guiding principles and standards for the adoption of either Proposal 1 or 2, where the Commission should seek to support the realization of full resilience benefits while reasonably ensuring NEM integrity requirements.

**Question 5:** **It has been noted that either proposal would only impact large NEM-paired storage systems (> 10 kW) that have opted to meet the NEM metering requirements by installing equipment that prevents grid charging of the storage device. Given this limitation, please describe the value of this proposal's adoption.**

There is significant value and benefits in supporting larger NEM customers to provide full resilience benefits, as critical facilities and local governments will likely fall into this category of customer. CESA may offer further response to this question in reply comments.

**Question 6:** **Parties have stated that, under the existing Underwriters Laboratory Power Control System Certification Requirement Decision, power controls system settings can be changed by the manufacturer or system developer/installer and that this change**

**can be accomplished, in many cases, remotely. Please describe the process by which these settings would be adjusted ahead of a PSPS event and reset following the conclusion of the event. Please include answers to each of the following sub-questions in response.**

a. **Which party or parties have the capability to adjust power control system settings?**

b. **How should that party be informed of upcoming PSPS events?**

c. **What geographical information about the upcoming PSPS event would be necessary for this party to determine which systems were eligible for adjusted power control system settings?**

d. **Should customers be given the opportunity to opt in or out of settings changes? If so, how should this process be handled?**

e. **Following the conclusion of the PSPS event, how quickly could power control system settings be returned to their defaults? How quickly should the settings be required to return to their defaults?**

f. **Following the conclusion of the PSPS event, would it be necessary for the utility to verify that the power control system settings had been reset to their default? Please justify and describe how this verification could be accomplished.**

g. **If settings were found, at a later date, to have been allowed to remain in a configuration that allowed systems to violate NEM integrity, which party should be held responsible?**

Only the manufacturer or aggregator should be authorized to adjust the controls settings in response to a notification from the IOU. As CESA understands it, the controls settings cannot be modified directly by the customer, so the ability and responsibility of only the manufacturer or aggregator to adjust these settings appears to be an extensive of current rules. Customers should be allowed to opt out of setting changes, but this relationship and process can be managed by aggregators and developers to provide this functionality.

Furthermore, notification of upcoming PSPS events to these customers do not require separate rules or processes beyond what has already been adopted in D.19-05-042, which established priority notification and general notification timelines, customer types, and processes. These notifications will likely also already include the IOU's assessment of the geographic scope of potential PSPS events. To improve these communications, CESA believes a PSPS or planned-outage application programming interface ("API") should be developed. Upon receiving this notification, the manufacturer or aggregator of the NEM paired storage system's controls should be authorized to remove the solar-only charging mode (Proposal 1) or to switch to non-export mode (Proposal 2). Subsequently, the manufacturer or aggregator of the NEM paired storage system should be required to revert back to the original controls setting upon receiving notification from the IOU that re-energization has begun. Again, while notifications related to re-energization can be improved, this proposal should continue to leverage the notification and communication protocols adopted in D.19-05-042 and updated as part of R.18-12-005. Finally, there is no need to add additional reporting requirements to verify that the customer has reverted back to its original mode. The interconnection agreement is in place to outline responsibilities and consequences for any breach of the interconnection requirements; though, as noted in response to Question 3, "exceptional" operations would need to be defined in a modified tariff and interconnection agreement.

**Question 7:** **If either proposal were adopted, should NEM metering requirements be adjusted such that power control system settings may be adjusted immediately after the announcement of an upcoming PSPS event is made? Alternately, should power control system setting adjustments be allowed only a specific number of hours ahead of the planned PSPS event? If one supports the latter option, what number of hours is appropriate and why?**

CESA favors the former to allow PCS settings to be adjusted immediately after the PSPS notification to provide the greatest amount of flexibility to customers in preparing for and delivering full resilience benefits. As experienced in the 2019 PSPS events, the timeline for when the actual PSPS event is triggered can be variable due to changing weather conditions, such that a prescriptive and specified number of hours of charging allowed ahead of the planned PSPS event would be counterproductive, especially if the PSPS event is actually triggered much later than expected (*i.e.*, storage may be left with less than full charge due to limits on the hours allowed to charge). Alternatively, changing weather conditions may lead to a PSPS event to be called earlier than expected or planned, such that the flexibility to immediately switch controls settings will better prepare customers with NEM paired storage systems to be fully charged when PSPS events actually occur.

**Question 8: Has this risk been sufficiently assessed as part of the interconnection study process? Why or why not?**

a. **Has this risk been sufficiently assessed as part of the interconnection study process? Why or why not?**

b. **What options should be considered in order to mitigate this risk?**

c. **If left unmitigated, what is the worst-case scenario that could result?**

CESA has no response at this time but looks forward to reviewing and possibly replying to the responses from other parties, especially from the IOUs who may offer views on the impacts to the interconnection risks and study process.

**Question 9: Adjustments to NEM metering requirements could interact with other standards, tariffs, and incentive programs. Please identify any such interactions and note any penalties customers might face as a result of grid charging.**

To our knowledge, CESA only sees interactions with SGIP, which will support many of these NEM paired storage systems for resiliency. Namely, there could be interactions with the greenhouse gas ("GHG") requirements for storage systems claiming SGIP incentive funds where certified solar-only charging or solar self-consumption modes are used to deem upfront compliance with the program's GHG requirements.[8] However, such compliance options are only available for new residential storage customers, whereas the two storage charging proposals discussed here cover greater than 10 kW NEM paired storage systems, which are usually deployed for non-residential customers and some larger residential customers.

**Question 10:** **What other implementation issues will need to be addressed if either proposal is adopted? For each issue identified, please describe a possible path forward.**

CESA has no additional comment at this time.

**Question 11:** **Should either proposal be expanded to all pre-planned outage events (including non-PSPS events) in order to maximize resiliency impacts?**

CESA has no additional comment at this time.

**Question 12:** **Should either proposal be adjusted to mandate that grid charging only be allowed during hours when grid power is largely produced by renewable generation? Please discuss.**

No, CESA believes such charging requirements would be overly restrictive, not support customers in realizing full resilience benefits, and would subject storage systems to decarbonization-related requirements that other microgrid proposals are not currently assessed against. While fully supportive encouraging clean backup power and resiliency solutions, a long-term framework to assess how various microgrid proposals align with the state's decarbonization goals and policies are not currently in place, which should be a priority Track 2 scoping item in

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[8] Appendix A of D.19-08-001 at 7.

this proceeding. However, CESA notes that it may be sufficient at this time to lean on the SGIP GHG rules and compliance requirements for storage systems, where SGIP incentives will likely support a majority of these critical resiliency projects. In D.19-09-027, the decision outlined how it "does not alter the cycling or GHG requirements for projects applying for either residential or non-residential equity budget incentives, including critical resiliency needs customers,"[9] such that the Commission should be reassured that these projects will reduce GHG emissions without having to adopt additional charging restrictions or requirements as part of the proposals considered here.

**Question 13: Should this proposal be modified in any other way before being adopted and/or implemented? If so, please describe and justify any changes.**

CESA does not propose any other modifications at this time.

**Question 14: Are there other options for each proposal that have not been listed? If so, please elaborate on the option(s) that should be considered. Include as much detail as possible.**

CESA does not propose other options at this time.

## V. RESPONSES TO QUESTIONS ON STORAGE CAPACITY LIMIT PROPOSALS MODIFYING EXISTING TARIFFS TO MAXIMIZE RESILIENCY BENEFITS.

Similar to the storage charging proposals, the storage capacity limit proposals support the goal of allowing customers with NEM paired storage systems to maximize their resilience benefits, considering customers may need to size their systems to resiliency needs beyond the limits established within NEM.

**Question 1: Please indicate support of or opposition to the adoption of either proposal, and discuss the position taken.**

**Proposal 1: Modify NEM tariff to remove storage sizing limit and to require islanding ability for energy storage systems larger than 10 kW.** Support but Proposal 2 is preferred.

[9] D.19-09-027 at 54.

CESA has concerns that this proposal could be interpreted to mean that any storage system deployed with NEM solar that exceeds the 150% capacity limit would have to configured to provide backup. As a result, for example, commercial storage systems deployed for demand charge management, not backup, could be implicated due to this proposal.

**Proposal 2: Modify NEM rules to remove storage sizing limit.** <u>Support</u>. It is important to note that the sizing limit just determines whether a storage system is deemed an addition or enhancement to the NEM system and thus if that storage system gets some of the benefits of being so designated (*e.g.*, reduced application fees). It is not a hard limit on the ability to deploy larger systems. If a customer wants to forego NEM benefits and not design a system for resiliency, they should be allowed to do so.

**<u>Question 2</u>:** **Are changes to any rate schedules or electric rules needed to implement any of the proposals? If so, which ones, and how do they need to be changed? Please propose specific language.**

Yes, as explained in the Staff Proposal, the IOUs will need to update their NEM tariffs.

**<u>Question 3</u>:** **Is CPUC action required in order to implement any of the proposals? If so, what action would be most appropriate?**

Yes, the Commission would need to direct the IOUs to update their NEM tariffs accordingly, with an IOU advice letter submittal process likely to follow.

**<u>Question 4</u>:** **If CPUC action is required, what standards are appropriate for CPUC to use to determine whether the adoption of either proposal is justified?**

Response.

**<u>Question 5</u>:** **The Self-Generation Incentive Program (SGIP) recently established a requirement that in order to receive an incentive intended for storage to provide resiliency benefits, the SGIP applicant must demonstrate that the system has been inspected and approved as able to operate independently from the grid in an outage by a local authority having jurisdiction (AHJ). Specifically, the applicant must demonstrate that (1) an AHJ has approved plans showing that the system can operate**

**independently from the grid, and (2) an AHJ has inspected the system after installation and has authorized operation. We seek comment on whether this same requirement should be required by the utility interconnection departments as part of the interconnection application for these systems, or whether there are other options for allowing the interconnection department to verify the that the system has been designed to operate independently from the grid in the event of a grid outage.**

To the degree that such documentation that the AHJ has inspected and approved the system for operation, as is required to claim SGIP incentives for storage systems with longer than two-hour discharge duration,[10] the IOUs should accept this as sufficient demonstration of islanding capabilities. There is no need to duplicate efforts. The majority of storage-backed resiliency projects will fall into this category where additional documentation may not be needed. Furthermore, thousands of storage systems that provide backup have been deployed already and questions about whether they perform as promised have not been raised.

**<u>Question 6</u>: Does either proposal have any negative impacts on NEM or NEM-related tariffs with similar sizing restrictions?**

No, CESA does not see any negative impacts at this time.

**<u>Question 7</u>: Removing the sizing restriction will allow customers to partake in the short term (20 year) financial benefits of NEM, while allowing for storage larger than their highest consumption day of the year. In the long-run, will this encourage grid defections in a way which shifts grid costs to low-income customers?**

No, CESA does not see grid defection as being a concern here since very few customers will be able to afford to completely defect from the grid. The cost-shifting issue should be considered and discussed in the appropriate proceeding (*i.e.*, R.14-07-002), which could then inform this proceeding.

**<u>Question 8</u>: Should either proposal be modified before being adopted and/or implemented? If so, please describe and justify any changes.**

[10] D.19-09-027 at 43.

CESA does not propose any modifications at this time.

**Question 9**: **Are there other options for each proposal that have not been listed? If so, please elaborate on the option(s) that should be considered. Include as much detail as possible?**

CESA does not propose other options at this time.

## VI. RESPONSES TO QUESTIONS ON LOCAL GOVERNMENT ACCESS PROPOSALS TO FACILITATE DEVELOPMENT OF RESILIENCY PROJECTS.

CESA agrees with the importance of local government access to IOU information to support the development of resiliency projects. For the purposes of Track 1, the proposals included in the Staff Proposal are reasonable and should be adopted. However, for Track 2 and beyond in this proceeding, the discussion around data access and information should be broadened to include a wider range of customers and third-party developers who may also benefit significantly from such information to strategically site and develop resiliency projects. As discussed above, a Track 2 framework should be established to create a mechanism by which such data can be shared and streamlined to inform customer-requested or third-party-driven development while also identifying and supporting opportunities for larger microgrid investments.

**Question 1**: **Please indicate support of or opposition to the adoption of each proposal and justify the rationale. For the proposals that include implementation options, please indicate support of or opposition to each option and explain why.**

CESA generally supports the three proposals included in the Staff Proposal as supporting local governments in accessing data that facilitates resiliency project development.

**Question 2**: **Are changes to any rate schedules or electric rules needed to implement any of the proposals? If so, which ones, and how do they need to be changed? Please propose specific language.**

CESA does not have any recommended changes at this time but looks forward to reviewing other parties' proposals and may respond to their opening comments.

**Question 3**: **Is CPUC action required in order to implement any of the proposals? If so, what action would be most appropriate?**

CESA has no comment at this time.

**Question 4**: **For proposals that require CPUC action, what standards should be used to determine whether action is justified?**

CESA has no comment at this time.

**Question 5**: **Should CPUC consider cost recovery for any of these proposals in this proceeding? For example, should CPUC consider cost recovery for additional IOU technical resources to support the intake, prioritizing, technical support, and processing of local government resilience projects? Please discuss.**

CESA has no comment at this time.

**Question 6**: **How long would it take to recruit, hire and train additional IOU resources to staff the dedicated IOU team for local government projects referenced in Proposal 3?**

CESA has no comment at this time as this question appears to be directed to IOUs.

**Question 7**: **What data from the list in Proposal 5 and Appendix 4.4 is essential for microgrid development? Please list the line numbers of data from the text of Proposal 5 as well as the line numbers of individual data points from Appendix 4.4 in response. Please indicate whether the response reflects the data that is needed for the development of a microgrid that is behind the customer meter or in front of the customer meter.**

CESA generally believes that the hosting capacity maps will play a key role in facilitating the siting and interconnection of customer-requested microgrids and thus supports the data points outlined in Proposal 5 and Appendix 4.4. An easily accessible dataset that overlays information on distribution infrastructure elements that are prone to wildfire or PSPS risks would also support customers in identifying their need for microgrid development.

**Question 8**: **Is there other data essential for microgrid development not listed in the Appendix that could be identified, along with an explanation of its use? Please indicate whether the response reflects the data that is needed for the development of a**

**microgrid that is behind the customer meter or in front of the customer meter.**

For behind-the-meter ("BTM") resources that are part of a microgrid, it would also be ideal for additional overlays of eligibility for the SGIP resiliency adder or Equity Resiliency incentive, which is defined based on whether a customer has experienced two or more PSPS events or live in a Tier 2 or 3 High-Fire Threat District ("HFTD") zone, and/or qualify as a low-income or DAC customer. Data to support the identification of eligible SGIP customers may be developed separately by the SGIP program administrators ("PAs"), but to the degree that this dataset can be integrated into these separate portals, the Commission should strive to have such data housed in this one-stop-shop portal for local governments.

**Question 9:** **Should any of these proposals be modified before being adopted and/or implemented? If so, please describe and justify any changes.**

CESA has no comment at this time.

**Question 10:** **Are there other options for each proposal that have not been listed? If so, please elaborate on the option(s) that should be considered. Include as much detail as possible.**

CESA has no comment at this time.

## VII. RESPONSES TO QUESTIONS ON INVESTOR OWNED UTILITY PROPOSALS FOR IMMEDIATE IMPLEMENTATION OF RESILIENCY STRATEGIES.

CESA appreciates the IOUs for developing proposals in short order to deliver and implement immediate resiliency strategies for its customers in 2020, which should be the priority in Track 1 of this proceeding. However, though the IOU proposals, with modifications, may be reasonable to approve in the short term, the Commission should reassess any 2020 strategies and proposals within the principles and processes of a long-term framework to ensure alignment with policy goals and to ensure that the best alternatives are identified and implemented.

**<u>Question 1</u>: Please indicate support of or opposition to each proposal and explain the rationale. In response, please clearly distinguish between the action proposed and the cost recovery mechanisms proposed, if any.**

**PG&E's Distributed Generation-Enabled Microgrid Services ("DGEMS") Make-Ready Program:** <u>Oppose unless modified</u>. If the proposed program is a continuation and approach of the 2019 DGEMS Request for Offer ("RFO"), CESA has concerns with the DGEMS Program as proposed in this proceeding and cannot support this program unless modified to justify and demonstrate the need for the outlined service requirements (*e.g.*, four consecutive days with no transmission energy supply or two consecutive days without any customer load drop), to broaden participation from different types of resiliency solutions and resources, and to implement a reasonable timeline for developers and solution providers to prepare bids. Additionally, there are open policy questions regarding the appropriate procurement entity, cost allocation approaches and mechanisms, and regulatory approval pathways for microgrid solutions that provide both generation and distribution services, which will likely need to be sorted out in Track 2. For example, even as the 2019 DGEMS RFO resources are narrowed and selected based on its ability to meet microgrid service requirements, PG&E is seeking approval from the Commission for these resources in response to the D.19-11-016 procurement directive from the Integrated Resources Planning ("IRP") proceeding, which is driven by System Resource Adequacy ("RA") shortfalls but is encouraged to consider resiliency needs as well. Additionally, while the DGEMS RFO recognized the potential to adhere to decarbonization objectives and pursue renewable natural gas over time if such solutions are selected, the program as is does not establish the framework or parameters by which such a program could ensure alignment with long-term decarbonization goals and policies.

CESA does not oppose the 2019 DGEMS RFO but has concerns about expanding the DGEMS approach to 28 additional substations, as proposed by PG&E, without modifications to reflect and address our concerns related to long-term alignment with decarbonization goals and policies, cost allocation mechanisms and approaches, regulatory approval pathways, and transparency and input into the microgrid service requirements. Before approving the program, the Commission should seek modifications from PG&E along these lines or, alternatively, limit the scope of the proposed program.

**PG&E's Temporary Generation Program:** Support with modifications. CESA recognizes that many clean backup power and resiliency solutions such as solar and storage and community microgrids require time to implement and deploy and/or additional policy development to overcome key barriers to deployment. As a result, diesel backup solutions are necessary in the short term but should be clearly recognized as a stopgap measure given their safety issues and emissions profile. Before approving this program as an interim measure, PG&E should be required to justify and demonstrate the need for 300 MW of mobile generation units for 2020, outline how these units will not compete with or deter the deployment of alternative solutions (*e.g.*, SGIP Equity Resiliency storage projects),[11] and describe a long-term strategy to phase out the need for mobile generation units in favor of clean alternatives, similar to what has been proposed by SCE in its proposal. Furthermore, the Commission should note that mobile battery systems and portable solar arrays exist and can be used on a temporary basis in local communities.[12] With these further

[11] This is the very concern that CESA has around SDG&E's existing Generator Grant Program ("GGP"), which SDG&E describes as being created as part of the 2019 WMP as a pilot rebate program to support those who cannot afford portable generators.

[12] St. John, Jeff. "The Business Case for Mobile Batteries in New York." Greentech Media. 2017 March 2. https://www.greentechmedia.com/articles/read/the-business-case-for-mobile-batteries-in-new-york; Energy Sage. "Portable solar panels: are they right for you?" https://news.energysage.com/portable-solar-panels-are-they-right-for-you/

showings, the Commission will be better positioned to approve the appropriate scope for the program (in terms of MW of units and budget required) and establish a roadmap to transition away from diesel generators, which work counter to the state's decarbonization goals and safety objectives.

**PG&E's Community Microgrid Enablement Program ("CMEP"):** Support. This technical support and financial incentive proposal will facilitate the development of community-requested microgrids, where opportunities will be sourced through close coordination with local government agencies as channels. Community microgrids can be complex to develop and interconnect, so the technical support will support customer implementation of microgrids. In addition, CESA supports the proposed one-time matching funds to offset some portion of utility upgrade costs associated with the islanding function, though additional details and information on this financial incentive should be provided. PG&E indicated on the January 27, 2020 webinar that the technical assistance and financial incentives would be for in-front-of-the-meter ("IFOM") microgrid development; however, going forward, this program should evolve to consider ways in which behind-the-meter ("BTM") solutions can also be considered as part of community microgrids. The Commission should approve this program as a pilot, conditioned on providing some additional information as well as pilot objectives and evaluation framework that would enable a potential scaling of this opportunity when assessed under the long-term framework established in Track 2.

**SCE's 2020 PSPS Microgrid Pilot:** Support with modifications. As noted in Section II of these comments, CESA views this pilot proposal as laying a solid foundation for a long-term framework to be developed and established in Track 2 of this proceeding. The screening and prioritization process (*e.g.*, customer type and location, existing mitigation measures, required modifications) and pilot objectives and evaluation framework (*e.g.*, microgrid design, deployment over time, technology phase out, use of third parties) are potential components of a long-term framework that could support greater transparency into microgrid and resiliency needs that help to define the appropriate service requirements and enable the consideration of a wider range of resiliency solutions and sourcing approaches (*e.g.*, solicitation versus tariffs) that yield more competitive and cost-effective outcomes. CESA has some concerns with the invite-only nature of the RFO process, but this could be an area of post-pilot, Track 2 improvement. CESA also seeks to understand the service requirements and eligible technologies, which as seen with the PG&E 2019 DGEMS RFO, could greatly affect the type of resources that are eligible and capable of addressing the need – another post-pilot, Track 2 improvement area that could be addressed by engaging stakeholders through the screening and prioritization process. While promising on its face, CESA seeks additional information on how different resources will be evaluated for the service need.

**SDG&E's Microgrid Controller Proposal:** Support. CESA does not oppose SDG&E seeking to further enhance the real-time operations within its existing and approved microgrids through the proposed controllers. Broadly, CESA wishes to have seen SDG&E consider potential new microgrid programs and investments, beyond just enhancing its existing microgrids, which should be encouraged as part of Track 2 in this proceeding.

**SDG&E's EV Charging Station Proposal:** Support. CESA does not oppose this modest investment in EV charging stations at critical facilities within their existing and approved microgrids, which would mitigate customer mobility events during PSPS events. This proposal underscores the importance of providing assurances of customer mobility, which will become a greater issue over time as the state advances its EV deployment goals.[13] As commented in response to SDG&E's other proposal, CESA encourages SDG&E to broaden its consideration of potential microgrid programs and investments as part of Track 2 in this proceeding.

**<u>Question 2</u>: Is CPUC approval required in order to implement any of the proposals?**

For any proposals that are approved as part of this proceeding, CESA strongly recommends that the Commission affirm that these proposals not be precedent setting and ensure that these are temporary, interim approaches to address short-term action needed in 2020. Going forward, CESA believes a sustainable framework is needed in order to ensure that all microgrid programs, investments, and tariffs align with the state's decarbonization and DAC goals and ensure competitive and cost-effective outcomes. With that said, each of the proposals require Commission approval in this or other proceedings (*e.g.*, R.18-10-007, R.16-02-007). The Commission should provide clarifications as to where these proposals should be considered for approval and avoid duplication of programs and investments approved in other proceedings and venues.

**<u>Question 3</u>: For proposals that require CPUC approval, what standards should be used to determine whether approval is justified?**

As noted in our response to Question 1, CESA believes that approval for these short-term actions should include but not be limited to the following key factors:

- Demonstration of need and/or service requirements, particularly for microgrid investments

[13] For this reason, CESA proposed a Phase 2 proposal in R.18-12-005 that EV charging infrastructure should be included in the notification and communication protocols for de-energization events. As witnessed in the 2019 PSPS events, long lines of customers were generated at gas stations in advance of PSPS events since mobility plays a key role in customers being able to secure essential goods and services and move to unaffected areas. Hopefully in the near future, EVs can also play a key role in providing customer backup resiliency.

- Consideration of cleaner alternatives in the immediate term (*e.g.*, all-source solicitation including preferred resources) or, at minimum, as part of a long-term roadmap (*e.g.*, phase-in approach)

- Limitation in scope or temporary in nature to allow the long-term framework, pursuant to SB 1339, to be implemented for more comprehensive assessment

<u>**Question 4**</u>: **For proposals that require CPUC approval, was sufficient information provided? If not, please describe what additional information is needed. Examples of possible additional information are provided below. Indicate whether the below information is necessary and why or why not. Please add any additional information that should be considered and why.**

**a. Explanation of the criteria and reasoning for determining how to prioritize the locations and/or customers to be served (e.g., frequency of PSPS events or number of customers); and**

**b. Costs and impacts of alternative approaches to achieving the goal of the proposal (e.g., reducing the impacts of PSPS outages) that were considered and rejected, such as alternative technologies or fuels, infrastructure hardening, distribution or transmission system sectionalization**

For each of the following proposals, CESA believes additional information and explanation is needed:

- PG&E's DGEMS Make-Ready Program:
  - What is the justification for the service requirements of the DGEMS microgrid investments?
  - Can the service requirements be differentiated by location?
  - Did PG&E consider approaches that enable the use of clean DERs, such as by using a portfolio of IFOM and BTM DERs to address the service needs?
  - Given the estimated operational profile of the DGEMS resources to meet capacity and microgrid needs, how will this align with the IRP objective of decarbonizing its supply mix?
  - What are the comparative benefits and costs of expanding the Temporary Generation Program to address near-term needs at identified substations and customer locations instead of adopting this proposed program? Is there

merit to considering a broader array of options for longer-term and permanent deployment?

- PG&E's Temporary Generation Program:
  - o How was the 300 MW request for mobile generation units for 2020 determined?
  - o How will this program not deter the deployment of alternative solutions (*e.g.*, SGIP Equity Resiliency storage projects)?
  - o Has PG&E considered the role of mobile zero-emission resources as part of this program? If so, what steps did PG&E take to consider those alternatives and what conclusions did it draw from the assessment?
- PG&E's CMEP:
  - o How will the one-time matching fund be determined? What will it specifically cover? Are there limits to the amount and scope of upgrades that will be covered?
  - o Will the technical support and financial incentive be available on a first-come, first-served basis so long as eligibility criteria are met? Are there guidelines in the types of community microgrids that will be supported (*e.g.*, level of resiliency service, emissions profile of microgrid)?
- SCE's 2020 PSPS Microgrid Pilot:
  - o Can the screening and prioritization process be made available to stakeholders?
  - o What approaches are being considered to phase out the use of temporary backup generators, if deployed, as part of these microgrids?
  - o What are the service requirements and eligible technologies?

**<u>Question 5</u>:** **Are there any other microgrid-related actions that CPUC should consider directing investor-owned utilities to undertake in addition or instead of these proposals in order to mitigate the impact of outages due to PSPS events or other causes in 2020? If so, please describe and justify that proposed action. For example, should CPUC direct PG&E accelerate the deployment of mid-feeder microgrids (formerly called "resilience zones") beyond the rate proposed in the PG&E General Rate Case?**

CESA does not have other microgrid-related actions that the Commission can take at this time related to the IOU proposals, beyond the proposals included in the Staff Proposal. Instead, we urge the Commission to begin Track 2 of the proceeding as soon as possible in order to develop a long-term framework that can inform the development of microgrid programs, tariffs, and investments ahead of the 2021 wildfire season. Actions need to be made well before the end of 2020 to ensure timely implementation of whatever decisions are made.

## VIII. <u>RESPONSES TO QUESTIONS ON PROPOSALS REGARDING EMERGENCY TEMPORARY GENERATION</u>.

CESA explained in response to Question 1 in Section VII of these comments that emergency temporary generation proposals must be temporary in nature, or at minimum, include a long-term roadmap to phase out or replace them with cleaner alternatives. CESA does not offer substantive responses to the questions listed related to temporary generation but looks forward to reviewing other parties' opening comments, where CESA may offer our viewpoints in reply comments.

**<u>Question 1</u>:** **Should CPUC impose any requirements on how the IOUs engage with local government agencies with regards to siting, equipment specification, or operating conditions before operating emergency temporary generation so that community concerns regarding noise, odor and potential health effects can be addressed? Why or why not? If so, what requirements should CPUC impose and why?**

CESA has no comment at this time.

**<u>Question 2</u>:** **If the CPUC should require monitoring and reporting of air quality, sound, odor, and/or health effects during operation of emergency backup power, please comment on how such information would further the public interest. For example, could it be used to mitigate future impacts or establish limits?**

CESA has no specific recommendations but supports the reporting of this information in order to inform Track 2 and 3 discussions around the value of resiliency, particularly those using clean generation.

**<u>Question 3</u>:** **Please comment on what information should be provided, as a minimum, by a utility seeking authorization for the procurement of portable generators, whether utility-owned or contracted with a third party, to be used to provide emergency backup power to utility customers during emergencies. Indicate whether the below information should be required or not, and why or why not. Please add any additional information that should be required and discuss why it should be required.**

**a. Type(s) of generator that would be deployed (type and capacity, in MW);**

**b. Type(s) of fuel that would be used;**

**c. Separate unit costs for equipment, fuel, carbon allowances, and permitting; and**

**d. Greenhouse gas and criteria air pollutant emissions factors for each combination and generator and fuel type that would be operated, using standard assumptions (including assumptions used) to facilitate comparison.**

**e. If conventional, fossil-based diesel or natural gas is proposed, quantitative and qualitative comparison with the most competitive alternative fuel sources and technologies and narrative explanation of why the fossil-based options are proposed instead of the most competitive non-fossil alternatives.**

CESA has no specific recommendations but supports the reporting of this information in order to inform Track 2 and 3 discussions around the value of resiliency, particularly those using clean generation.

## IX. CONCLUSION.

CESA appreciates the opportunity to submit these comments on the Track 1 staff and IOU proposals and looks forward to collaborating with the Commission and stakeholders in this proceeding.

Respectfully submitted,

Alex J. Morris
Executive Director
**CALIFORNIA ENERGY STORAGE ALLIANCE**

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