

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

Order Instituting Rulemaking Regarding
Microgrids Pursuant to Senate Bill 1339 and
Resiliency Strategies.

Rulemaking 19-09-009
(Filed September 12, 2019)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON THE
ASSIGNED COMMISSIONER AND ADMINISTRATIVE LAW JUDGE'S RULING
SEEKING COMMENT ON POLICY QUESTIONS AND AN INTERIM APPROACH
FOR MINIMIZING EMISSIONS FROM GENERATION DURING TRANSMISSION
OUTAGES**

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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 *Assigned Commissioner and Administrative Law Judge’s Ruling Seeking Comment on Policy Questions and an Interim Approach for Minimizing Emissions from Generation During Transmission Outages* (“Ruling”), issued on September 4, 2020 by Assigned Commissioner Genevieve Shiroma and Administrative Law Judge (“ALJ”) Colin Rizzo. These comments are being timely filed and served pursuant to an extension to the comment deadline granted by ALJ Rizzo on September 10, 2020.

I. INTRODUCTION.

The unprecedented conditions and events of the 2020 wildfire season has highlighted the urgency and need to continue the state’s efforts to fight climate change while ensuring that the “lights stay on” with immediate resiliency solutions. Balancing between short-term resiliency needs and progress toward long-term climate goals presents challenging tradeoffs, but CESA firmly believes that the state must continue to make progress on its decarbonization goals and push for innovative clean solutions that can achieve those ends while still maintaining reliability. As evidenced by the regular frequency and growing magnitude of wildfires, climate goals can no longer be framed as a far-off problem, but one that is moving much closer on the urgency scale similar to the current resiliency and reliability needs. California must succeed in both advancing decarbonization and ensuring reliability to not only address climate change issues but demonstrate

that these dual objectives can be achieved without compromising the other. To date, California has positioned itself as an example for the rest of the nation and the world.

However, after reviewing the Staff Proposal attached in the Ruling, CESA is deeply concerned that California's clean energy, environmental, and equity goals will be hindered by the proposed default reliance on diesel generators as resiliency solutions for the 2021 wildfire season, combined with the clean microgrid pilots required as an "addendum" to the interim approach, presumably to support the transition to cleaner resiliency solutions. CESA views the Staff Proposal as lacking vision and ambition and taking a narrow and unsubstantiated view of clean resiliency solutions. In many ways, the Staff Proposal is short-sighted in "putting out the next fire" by developing resiliency strategies on a year-by-year basis instead of developing comprehensive planning frameworks and commercialization strategies. Though Track 1 in this proceeding understandably focused heavily on streamlining concepts and short-term reliance on diesel generators given the short lead time until the 2020 wildfire season,¹ CESA was expecting Track 2 would more strategically invest in clean technologies and solutions at greater scale and develop pathways, frameworks, and tariffs that support their siting, interconnection, financeability, and project development. Importantly, given California's role as a world leader in the climate change battle, CESA is also worried that the state's moral leadership would be diminished, which may be perceived as others that deep decarbonization of the electric sector is not possible without diminishing reliability.

CESA understands that there are specific operational and technical requirements as well as siting and cost constraints that can potentially complicate the development of clean microgrid solutions and lead to greater ease of mind in relying on the more readily "known" solution (*i.e.*, diesel generators). At the Diesel Alternatives Workshop, Energy Division shared a challenge statement and objectives to maximize the benefits to customers in safe-to-energize areas subject to transmission outages and to minimize the need to reserve a large fleet of diesel generation for the purpose of providing substation-scale power in 2021. Specifically, staff asked whether the alternative solution can replace diesel generation, meet the timeline for 2021 operation (including testing requirements), be able to pick up large de-energized loads and fit with existing grid

¹ The Track 1 Decision recognized that temporary diesel generation is "not a long-term resiliency strategy." See D.20-06-17 at 82.

protection devices, meet space requirements (e.g., fit on available substation land), be deployed and ready to go within 48 hours if portable, and be cost competitive with diesel generation. CESA generally agrees with this well-thought-out challenge statement and believes that any clean microgrid solution should answer the key questions implied therein.

At the same time, the Staff Proposal does not substantiate why the state must default to diesel generation as the 2021 wildfire resiliency strategy. There is no discussion or explanation of why diesel alternative technologies and integrated microgrid solutions are unable to sufficiently address the outlined challenge statement. A workshop was held where many vendors presented cleaner alternatives that CESA views as viable or at least worthy of deeper consideration and further development to make them work, but such process is not contemplated in the Staff Proposal, which essentially “kicks the can down the road” for piloting at a limited scale prior to or following the 2021 wildfire season as opposed to considering them at a commercial scale prior to the 2021 wildfire season. There is still time to develop clean microgrid solutions, with diesel generation representing a backstop solution when every effort to utilize cleaner alternatives falls short in terms of operational and technical capability and/or deployment in time for the 2021 wildfire season. A parallel can be drawn from the Integrated Resource Planning (“IRP”) proceeding, where Decision (“D.”) 19-11-016 was issued to direct procurement to address a System Resource Adequacy (“RA”) shortfall and over 1,000 MW of energy storage has been procured to date. In this procurement decision, the Commission allowed for the optionality to procure once-through-cooling (“OTC”) generation facilities, essentially as a last-resort solution, to address the system grid need but instructed all load-serving entities (“LSEs”) to procure new generation capacity to minimize the need to rely on them.² Similarly, the Commission should pursue cleaner alternatives to the greatest extent possible now to address the resiliency need and fall back on diesel generation as a backstop instead of the default solution.

Otherwise, CESA believes that the Commission would be not only sending the wrong message on advancing the state’s decarbonization goals in adopting the Staff Proposal but also de-emphasizing the harmful public health impacts of diesel generation on local communities and in exacerbating the climate issues that we face today and going forward. To this end, the Commission

² See D.19-11-016 at 3: “LSEs are encouraged to exceed these minimum requirements to help minimize or eliminate the need for the OTC compliance extensions requested.”

should revise the Staff Proposal to solicit more information on cleaner alternatives and direct the timely procurement of such solutions on a non-pilot scale to support 2021 wildfire resiliency. Diesel generation can always serve as a backstop solution, but their use should be minimized to the greatest extent possible and not extended beyond the 2020 wildfire season. In these comments, CESA provides our responses to the questions outlined in the Ruling and makes the following key recommendations:

- Rather than a focus on whether single technologies can address the resiliency need, the Commission should focus on multi-technology solutions with complementing capabilities to increase the viability of cleaner alternatives.
- Rather than a focus on substation solutions and static resiliency needs, the Commission should broaden the focus on the operationalization of customer-sited resources and on “shaping” the underlying resiliency need to support optimal solutions.
- Clean microgrid solutions and distributed energy resources (“DERs”) should be able to access other revenue streams to enable lower-cost bidding for the specific resiliency service.
- Instead of staff’s proposed interim approach, the Commission should direct the investor-owned utilities (“IOUs”) to issue a Clean Microgrid RFP for all of the identified substations where resiliency is needed, including for customer-sited DERs, with granular service requirements shaped and defined.
- While not supportive, if the interim approach is used, modifications are needed to incrementally rely on clean microgrid solutions and justification for the use of diesel generation must include every effort to operationalize DERs to minimize the scope and scale of temporary generation.

II. GENERAL POLICY QUESTIONS.

The questions outlined in the “General Policy Questions” section of the Ruling suggest that the Commission is making simplifying assumptions that should be reconsidered in three key ways.

First, CESA strongly disagrees with a single-technology approach and urges the Commission to instead consider clean microgrid solutions that incorporate multiple DER technologies. In responding to the questions, CESA found it difficult to provide information on different fuel and technology options when, in reality, multiple technologies will be integrated, configured, and deployed with complementing capabilities to meet the operational and technical

requirements required of diesel generation as substation-level resiliency solutions. Any presumed limitation of a single technology can be mitigated and complemented by its combination with other technologies. For example, solar and battery storage may need to be combined with long-duration storage (*e.g.*, flow batteries) and hydrogen-powered fuel cells to deliver reduced greenhouse gas (“GHG”) emissions while servicing both peak and baseload resiliency needs. However, the line of questioning is not conducive to such responses.

Second, CESA does not see a granular approach to defining the resiliency service requirements that would support optimal microgrid solution development that minimizes ratepayer costs and supports clean microgrid solutions that integrate the aforementioned technologies with complementing capabilities. Rather, the Staff Proposal outlines how clean microgrid solutions must meet a blanket 48- or 96-hour uninterruptible load requirement in addition to other technical requirements (*e.g.*, cold load pickup, frequency response). However, this blanket uninterruptible load requirement is not substantiated and applied across all substations without a consideration of whether such service requirements are truly needed, potentially leading to clean microgrid alternatives having to “oversize” their solutions that have cost and space/siting impacts.

A better alternative would be to develop more granularity in the service requirements with loading curves that enable clean microgrid solutions to be configured and developed to address the “area under the curve.” Such approaches are currently instituted in the Distribution Investment Deferral Framework (“DIDF”) and reviewed as part of the Distribution Planning Advisory Group (“DPAG”), where more granular operational requirements are defined to address time-differentiated thermal overloads and back-tie reliability needs. DER alternatives in this DIDF process represent potential lower-cost alternatives to traditional “wires” investments because the former is able to shape their charging and/or generation to fit the granular operational needs at specific locations, as compared to a wires solutions that provides a static capacity upgrade and are thus “oversized” when overlaid against time-differentiated distribution grid needs. In the same vein, wildfire resiliency needs must be assessed with time-differentiated load curves that define the uninterruptible load requirement with more granularity and help to identify how to size and configure the optimal clean microgrid solution.

Third, CESA disagrees with the Staff Proposal’s presumption that the wildfire resiliency needs are static and can only be addressed by substation-level solutions. The staff approach

completely ignores the possibility of operationalizing customer-sited DERs to shape the underlying load curve and resiliency need for the location where substation solutions are being considered. With a greater reliance on energy efficiency, demand response, behind-the-meter (“BTM”) energy storage, and hybrid solar-plus-storage, the Commission can shape and/or reduce the resiliency service requirement. As a result, the Commission can better support the viability of clean microgrid solutions, lower or minimize the amount of diesel generation that must be reserved if diesel generation is determined to be still needed, and/or reduce actual diesel usage when substation resiliency solutions are activated in response to Public Safety Power Shutoff (“PSPS”) or other outage events. The Commission is already making substantial investments in BTM energy storage through the Self-Generation Incentive Program (“SGIP”), such that it would be a prudent strategy to consider their deployments in planning and defining service requirements and thus not assume that their load needs to be served by substation-level solutions.

For SGIP-funded energy storage or any other customer-sited DER, these resources can also be operationalized to shape the load curve. In general, dynamic load response is critically overlooked in the Staff Proposal and in all discussions in this proceeding. Prior to expected or planned outage events, for example, customer-sited DERs can be directed to reduce their load to critical load levels or to island the single-customer premise to reduce the underlying resiliency service requirement. However, to realize this potential, resources that respond to these “calls” would need to be identified/mapped and compensated or incentivized to deliver such load response. A resiliency service tariff should thus be developed to activate customer-sited DERs in accordance with specific operational requirements that will support optimal sizing, configuration, and usage of substation-level microgrids. At minimum, this compensation can start with the avoided reservation, operational, and GHG/pollutant-related costs of diesel generation.

Question 1: Regulatory Simplicity & Ratepayer Maximizing Ratepayer Benefit: Are there duplicative efforts relating to infrastructure hardening and resiliency planning occurring between this proceeding, Rulemaking (R.) 19-09-009, and other proceedings such as R.18-10-007, the Order Instituting Rulemaking to Implement Electric Utility Wildfire Mitigation Plans Pursuant to Senate Bill 901, or general rate cases, that could expose ratepayers to either duplicative or excessive costs.

Yes, there is potential for overlap between this proceeding and R.18-10-007, which focuses on each IOU’s Wildfire Mitigation Plans (“WMPs”). In Track 2 of this proceeding, CESA

continues to recommend that the Commission expeditiously consider microgrid solutions in the IOUs' WMPs and to enable multi-premise microgrids, including third-party-owned and -operated microgrids. Many of the IOUs' Track 1 proposals built off their proposed activities and investments in their WMPs, which points to the need to better coordinate and share information between the WMP proceeding (R.18-10-007) and the Microgrids proceeding (R.19-09-009). Otherwise, CESA is concerned that Commission will not have a clear view of the various alternatives when assessing wildfire mitigation investments and expenditures for effectiveness, targeting, prioritization, and cost competitiveness. Moreover, rather than putting resiliency and wildfire mitigation investment decisions solely in the hands of the IOUs, CESA believes that efforts should be made to inform and encourage bottom-up, third-party microgrid development, which will also bring in private investment capital where possible to support resiliency needs. Importantly, microgrids represent an alternative solution that should be weighed against all other investment and expenditure categories. As the data quality and granularity of wildfire and PSPS risks improve, CESA recommends that the Commission incorporate the WMP data into a long-term microgrid framework to be developed in this proceeding, as such data will inform where and the degree to which microgrids are needed to mitigate said risks.

Question 2: Energy Resource Cost Effectiveness & Reliability: What fuel and technology resources should the Commission consider, as preferred solutions that reduce reliance on diesel for providing power during transmission outages?

There is a wide range of technology options and combinations that can provide reliable and cost-effective alternatives to diesel generation. CESA generally supports preferential criteria be developed that support Commission-defined preferred resources and energy storage resources, which have no point-source emissions. Emitting resources should be allowed so long as the resources have demonstrated lower GHG emissions intensity and local pollutant impacts relative to diesel generation. This may also come in the form of renewable blending (*e.g.*, green hydrogen storage) that seek to decarbonize the fuel used to provide resiliency service. In such cases, preferred criteria should be established for resources that increase renewable blending and reduce emissions over time.

In addition, any “new-build” of resiliency resources should also align with IRP planning targets and requirements in cases where they are intended to provide long-term generation capacity

as well. In other words, any resiliency resource built and/or used for meeting blue-sky conditions (e.g., permanent diesel generation) should not contravene long-term planning objectives, where the Commission is aiming to identify the optimal resource mix to meet our decarbonization goals.

a. Discuss the costs and benefits for each of the proposed resources;

CESA does not believe that we are in the position to comment on the specific costs and benefits for each of the proposed resources, particularly energy storage resources. Generally, many energy storage technologies are commercially available today and will increase in variety and decrease in cost over time. Energy storage is an asset class that includes a wide range of technology types, including lithium-ion batteries (stationary or mobile), flow batteries, zinc-air batteries, flywheels, thermal storage, pumped hydro, compressed and liquid air, vehicle-to-grid (“V2G”), and gravitational storage, among others. There are a number of variations (e.g., chemistries) among the technology types above with different cost structures and capabilities. Information on specific resource or technology types should be solicited through a Request for Information (“RFI”) or Request for Offers (“RFO”) by the Commission or the IOUs since such information will likely not be provided via public comments. Many of CESA’s member companies are eager to share more detailed information to the Commission and IOUs if a Clean Microgrids RFI or RFO is issued. CESA staff would be happy to facilitate this effort via connections with Commission staff, encouraging response to RFIs/RFPs or surveys, hosting of storage-specific workshops, etc. As noted above, CESA also urges the Commission and IOUs to focus only on any single technology cost or benefit but also on how complementing technologies can be combined and optimally integrated as a more cost-effective and cleaner alternative to diesel generation.

Additionally, in assessing costs and benefits of the proposed resources and integrated solutions, the Commission and the IOUs must consider the net costs of resources and enable them to access other revenue streams (e.g., via wholesale market participation) that allow lower-cost bidding for the specific resiliency service, especially in cases where the IOU may not be seeking to purchase other attributes of the resource (e.g., RA).

b. Discuss the cost implications for each of the proposed resources at utility scale;

See our response to Section II Question 2(a) above. Many energy storage technology types can be modular in nature, where storage power or energy capacity can be optimized with “building blocks” in the form of additional cells, tanks, etc. As the Commission considers “utility scale”, the aggregation of DERs should also be considered to achieve similar levels of scale in distributed form. A narrow focus on centralized resources is overly limiting.

c. Discuss the greenhouse gas (GHG) reduction benefits for each of the proposed energy resources;

See our response to Section II Question 2(a) above. Most energy storage technology types do not have point-source emissions but have GHG emissions impact based on their operational profile. Depending on charge and discharge schedules over time or whether and/or by how much a resource may charge from the grid versus onsite generation, the GHG emissions impact can differ and may sometimes be a complex calculation. Rather than focusing on *ex ante* determinations of expected GHG emissions impact prior to approving microgrid solutions with energy storage alone or as a component, the Commission should recognize the lack of point-source emissions and otherwise use performance and operational requirements to incentivize GHG-reducing behavior (*e.g.*, rates aligned with marginal GHG emissions, tariff requirements, contractual obligations).

d. Discuss any constraints or adverse local community impacts the proposed energy resources present;

See our response to Section II Question 2(a) above. Energy storage does not have adverse local community impacts due to the lack of point-source emissions. Depending on the energy storage technology, there may be space constraints if seeking to site in land-constrained or dense areas for those that have relatively lower energy density per unit of space.

e. Discuss the availability of alternative diesel fuels for each of the proposed energy resources (including whether in-state procurement is feasible) such as natural gas, renewable natural gas, biodiesel, and renewable diesel. Include impacts such as in-state procurement versus out of state procurement, and the need for proximity to other infrastructure (for example, a gas line);

CESA has no comment at this time.

- f. Discuss the quantity and capacity available of the proposed alternative fuel resources that can be readily deployed in 2021;**

See our response to Section II Question 2(a) above. For most energy storage technology types, the fuel source will be through grid charging and/or from onsite generation.

- g. Discuss whether these proposed energy resources have been used for electric utility reliability and/or resiliency in the context of natural and/or man-made disasters. This discussion consider should consider population size, demographics, and scale comparable to that of California;**

See our response to Section II Question 2(a) above.

- h. Discuss any land acquisition needs including requirements for CEQA review and use permits including authority to construct and permits to operate by air pollution control districts;**

CESA has no comment at this time.

- i. Discuss any durability requirements that may need to imposed to ensure that a resource can withstand extreme conditions;**

See our response to Section II Question 2(a) above.

- j. Discuss the portability and deployment of the resource and the number of hours of notice necessary to fulfill reliable deployment for immediate customer use? Alternatively, does the resource require permanent installation?**

See our response to Section II Question 2(a) above. CESA notes that energy storage can also be offered as mobile solutions with lithium-ion batteries that can be moved to different locations with temporary connections (e.g., containerized energy storage systems loaded onto a truck), or with V2G resources from electric vehicles (“EVs”) with onboard inverter capabilities or with bidirectional inverters built into stationary electric vehicle supply equipment (“EVSE”).

Question 3: Cost Implications: What weight should the Commission give to cost when weighing the need to transition to preferred resources for resiliency? How should alternatives be evaluated for their costs and benefits? How should those costs be allocated and collected?

If all benefit/revenue streams are accessible and societal costs (*e.g.*, local pollutants impact) can be quantified, then a more straightforward side-by-side comparison with the diesel generation seems reasonable. However, given that there may be barriers to value stacking and if societal costs are only assessed qualitatively, the Commission should consider some tolerance band of clean microgrid solutions (*e.g.*, $\pm 25\%$) when comparing them to diesel generation.

Question 4: Continuity of Safe and Reliable Service: Is it reasonable for a utility currently relying on fleets of diesel generation to serve substations loads during a transmission outage, to transition incrementally or entirely to: (a) alternative fuel resources by September 1, 2021, or (b) alternative energy resources by September 1, 2021; while ensuring safe and reliable service to customers during an emergency?

As discussed above, CESA supports an effort to transition entirely to clean microgrid solutions with the use of diesel generation as a backstop. This approach would direct the IOUs to more aggressively transition to the greatest extent possible while still ensuring safe and reliable service during an emergency, as opposed to prescribing pre-determined outcomes by allowing for diesel generation to be positioned as the default solution in the near term. To encourage market transformation and innovative thinking, the Commission may wish to set minimum transition targets (*e.g.*, only 50% of substation needs can be met with diesel generation) while still directing the IOUs to transition entirely to the greatest extent possible. Off-ramps could be created if the IOUs demonstrate that the entire transition would exceed certain cost thresholds and/or if no alternative can meet the minimum technical and operational requirements.

III. ALTERNATIVE RESOURCE PROPONENT QUESTIONS.

CESA strongly encourages the Commission to more deeply explore and pursue alternative resources in accordance with our recommended approach discussed in Section II above.

Question 1: Portability: Rather than a permanent, stationary presence at a substation, can a diesel alternative resource be optimized as a mobile or portable solution? Please respond with a “yes” or a “no”. If yes, please provide and discuss the schedule, scope of product design, any manufacturing adjustments, and fueling/refueling logistics. If no, discuss your reasoning.

See our response to Section II Question 2(a) and 2(j) above.

Question 2: Testing at Scale: Discuss the testing and scale of the diesel alternative energy resource that the Commission is being asked to consider. In

your discussion, you must state: (a) the extent to which this alternative energy resource has been deployed during a natural disaster or man-made emergency (i.e., earthquake, wildfire, etc.); (b) the demographics of the population the alternative energy resource served during this emergency; (c) the context of the regulatory framework under which the alternative energy resource was employed; (d) what stress-testing the alternative energy resource passed to ensure reliability during an emergency; (e) testing of the alternative energy resource in controlled settings; (f) dynamic tests; and (g) field tests.

See our response to Section II Question 2(a) above. The Commission should clarify this testing requirement and whether these are incremental or different from existing safety and reliability standards for installation, interconnection, etc. (e.g., UL 1741, UL 9540A, NFPA 855).

Question 3: **Implementation:** State an estimated timeline for implementing the use and deployment for the diesel alternative energy resource during future PSPS events.

See our response to Section II Question 2(a) above.

Question 4: **Emissions Reduction Benefits:** Provide information about the emissions for the proposed alternative energy resource, based on the air contaminants and emissions test data covered by the Portable Engine Registration Program Combined Regulation Airborne Toxic Control Measures.

See our response to Section II Question 2(a) and 2(c) above.

Question 5: **Runtime:** Provide information showing the estimated runtime the alternative energy resource has accumulated under commercial operation, for 2020 and by year for the past three years (2017, 2018, 2019).

See our response to Section II Question 2(a) above.

Question 6: **Customer Solar and Storage:** Should the Commission consider alternative energy resources that involve centralized management of behind the meter installations of customer solar and storage as a near-term alternative to deploying temporary diesel generation at the substation level? Why or why not? What is the estimated time and uncertainty related to customer adoption of residential solar and storage that could be centrally managed for the purpose of serving all customer load associated with the same substation? What is the basis for these estimates?

Yes, as noted in our discussion in Section II above, the operationalization of customer solar and storage can play a major role in supporting resiliency needs. This could be achieved via “centralized management” as suggested in the question, but tariffs or contracts with service requirements could also achieve the same ends, potentially more effectively and cost-efficiently, with third-party DER aggregators. In other words, the “central management” function can be operationalized through the distribution utility or by third-party aggregators.

In terms of estimated time and uncertainty related to the resources that could be centrally managed, the Commission and the IOUs should solicit this information via an RFI/RFP. Many BTM solar and storage are being deployed with third parties seeking to aggregate them for demand response or local capacity purposes (*e.g.*, see Demand Response Auction Mechanism [“DRAM”] or Local Capacity Requirements [“LCR”] contracts for BTM storage), such that the time to secure these resources for aggregation and response to resiliency needs is likely achievable before the 2021 wildfire season.

Question 7: Critical Loads Microgrids Critical Loads Microgrids: Should the Commission consider alternatives to substation-level temporary generation that focus on serving a small segment of critical loads in lieu of energizing all substation load? (Note: Such an approach would leave some safe-to-energize customers without power.)

CESA has no comment at this time.

IV. INTERIM APPROACH FOR MINIMIZING EMISSIONS FROM GENERATION DURING A TRANSMISSION OUTAGE IN 2021.

The interim approach proposed in the Staff Proposal is flawed and creates a default reliance on diesel generation for 2021 instead of pursuing cleaner alternatives and falling back on diesel backup if needed. Clean technologies and integrated solutions are available now and the focus should not be on transitional pilots following the 2021 wildfire season but on a systematic and concerted transition for all substation projects where it is deemed critical and necessary to deploy diesel generation or alternatives. While not supportive, if the interim approach is used, modifications are needed to incrementally rely on clean microgrid solutions and justification for the use of diesel generation must include every effort to operationalize DERs to minimize the scope and scale of temporary generation.

Question 1: Do you support the proposal for how the Commission can minimize the use of diesel to serve substation loads in 2021 and 2022? Please respond with a “yes” or a “no” and discuss your reasoning. If you do not support this proposal, provide an alternative proposal that minimizes the use of diesel for energizing substations.

No, CESA does not believe that the proposed interim approach makes every effort to minimize the use of diesel. As discussed in Section II, the interim approach does not require granular or shaped service requirement definitions that would reduce, minimize, or possibly eliminate the use of diesel generation. In addition, the Staff Proposal does not justify why clean microgrids require the use of pilots if such alternative solutions are commercially available, certified to all relevant safety and interconnection standards, and can be tested in the commissioning phase. Rather, the Commission should direct a Clean Microgrid RFP to be issued by the IOUs within the next two months to provide resiliency to each at-risk substation. Upon reviewing the bids and offers, the IOUs can then substantiate whether diesel generation is needed because the submitted solutions either exceed some cost cap or cannot meet the defined service requirements. Instead of pilots, the Commission should allow for commercial investments to be made where they can feasibly and cost-effectively address the resiliency need at the identified locations. Any concerns about long-term investments becoming stranded costs can be alleviated by evaluating bids/offers and contracting for solutions that offer other grid services and attributes under blue-sky conditions, so long as they also align with long-term capacity expansion modeling and planning objectives.

Question 2: Does a utility transmission de-energization event, such as a PSPS or other outage, present an immediate temporary need for the utility to operate generation to help alleviate a threat to public health and safety?

As discussed above, yes, there is an immediate need for solutions to address potential utility transmission de-energization events in order to protect public health and safety, but CESA does not believe that diesel generation should be the default solution.

Question 3: Does the proposal articulate appropriate conditions for authorizing a utility to reserve a temporary generation fleet, including diesel generation? Are there additional conditions that should be applied? Are any of the three conditions unreasonable or overly restrictive (Attachment B, Paragraphs 1.1-1.5)? Discuss.

No, as noted in our discussion in Section IV above, the interim approach is problematic because it does not direct a concerted effort to consider diesel alternatives. Instead, the interim approach only requires demonstration of reservation costs for diesel generation and substantiation of need, but it does not require a cost and impacts comparison with diesel alternatives. Furthermore, instead of focusing narrowly on historical outage data, the IOUs should also consider forward-looking risk factors to consider microgrid investments.

Question 4: As a first step toward transitioning away from diesel generation, is it reasonable to require a utility seeking to deploy temporary generation in 2021 to pilot clean substation microgrid projects that would be operational for the 2021 or 2022 fire seasons?

CESA does not support the interim approach, but if pursued, yes, approval of the use of temporary generation should be tied to a required transition to clean microgrid projects. The number of clean microgrid projects should not be limited to a pilot scale and the number of projects should be affirmed as a minimum or floor, not a maximum or cap.

Question 5: Please indicate support or opposition to the first condition for pilot projects (Attachment B, Paragraph 2.1). Is it reasonable to require a utility to install stationary generation, considering that there is a risk of stranded costs and a more comprehensive framework for transitioning from diesel has not yet been established?

CESA does not support the interim approach, but if pursued, CESA supports the consideration of either mobile or stationary projects.

Question 6: Please indicate support or opposition to the second condition for pilot microgrid projects, listing the characteristics of substations where these projects would be developed (Attachment B, Paragraph 2.2). Is this a reasonable way to limit stationary projects to substations where they make sense as long-term, low-risk investments? Are there additional substation characteristics that should be included?

CESA does not support the interim approach, but if pursued, the condition should be modified to assess the risk of stranded investment cost on a spectrum rather than a binary variable. In other words, if the risk of power loss is not long term or less probable at a specific location, the clean microgrid solution should be more heavily weighted for its grid-service attributes under blue-sky conditions. Risk is variable and dynamic, so such lower risk or shorter-term projects should not necessarily be removed from consideration of clean microgrid solutions. Such locations may be able to deliver resiliency on a shorter time frame, which should be evaluated as such. Benefits

could still be provided from such resources during blue-sky conditions, for example, to provide much-needed System RA capacity.

Question 7: Please indicate support or opposition to the third condition for pilot projects, requiring that they be judged feasible by the utility and meet a set of minimum criteria (Attachment B, Paragraphs 2.3). Are there additional criteria that should be included?

CESA does not support the interim approach, but if pursued, the condition is generally reasonable but should not apply a uniform islanding requirement of 48 hours if granular assessments show more or less, or time-differentiated islanding can be provided.

Question 8: Is it reasonable to require pilot projects to be cost-competitive with diesel temporary generation, accounting for other revenue streams (Attachment B, Paragraph 2.3)?

CESA does not support the interim approach, but if pursued, the condition is generally reasonable. The Commission should also consider how clean microgrid solutions compare against wires investments made in R.18-10-007.

Question 9: Please indicate support or opposition to the third condition for permanent microgrid projects, requiring them to meet certain emission reduction requirements? Are the specific reduction targets reasonable (Attachment B, Paragraph 2.4)?

CESA does not support the interim approach, but if pursued, the condition is generally reasonable. The specific reduction percentages should be more closely assessed to set the appropriate thresholds.

V. PROCESS FOR TRANSITIONING TO CLEAN TEMPORARY GENERATION IN 2022 AND BEYOND.

CESA reiterates our view that the process for transitioning to clean microgrid solutions should commence immediately with a 2020 Clean Microgrid RFP.

Question 1: Do you support the proposal for a process for transitioning to clean temporary generation in 2022 and beyond? Please respond with a “yes” or a “no” and discuss your reasoning. If you do not support this proposal, provide an alternative proposal for a long-term approach.

CESA does not support the proposed transition process, but if pursued, more aggressive targets should be established to advance cleaner alternatives. The proposed transition process is

too gradual and sets up a process whereby the IOUs could potentially slowly phase down diesel use over a 5-10-year period – a pace that is far too slow to address our climate challenge.

Question 2: Does the proposal for a long-term approach to temporary generation articulate appropriate topics to be addressed in a utility application? Are there additional topics that should be addressed?

CESA does not support the proposed transition process, but if pursued, the proposed topics appear appropriate and sufficient.

VI. CONCLUSION.

CESA appreciates the opportunity to submit these comments on the Ruling 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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