BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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Order Instituting Rulemaking to Continue Electric Integrated Resource Planning and Related Procurement Processes.	Rulemaking 20-05-003 (Filed May 7, 2020)

OPENING COMMENTS OF CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES ON ADMINISTRATIVE LAW JUDGE'S RULING SEEKING FEEDBACK ON MID-TERM RELIABILITY ANALYSIS AND PROPOSED PROCUREMENT REQUIREMENTS

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For: CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES

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The Center for Energy Efficiency and Renewable Technologies (CEERT) respectfully submit these Opening Comments on Administrative Law Judge's Ruling Seeking Feedback on Mid-Term Reliability Analysis and Proposed Procurement Requirements, issued in (R.) 20-05-003 (Integrated Resource Plan (IRP), on February 22, 2021 (ALJ Ruling). These Opening Comments are timely filed and served pursuant to the Commission's Rules of Practice and Procedure and the instructions contained in the ALJ Ruling.

I.
SUMMARY OF CEERT'S POSITION

CEERT appreciates the opportunity to comment on this ALJ Ruling, and believes this procurement represents a critical inflection point in California's grid decarbonization. In light of the Emergency Reliability proceeding resulting in primarily natural gas procurement, this Mid-Term Reliability Procurement initiative is crucial to meeting the State's climate change goals. Furthermore, the resources resulting from this procurement will be long-term resources that will remain in use for the foreseeable future and define California's grid composition going forward. As such, CEERT believes there are three main underlying issues that must be addressed and rectified for this procurement to yield a reliable, cost effective, diverse resource portfolio.

First, the California Public Utilities Commission (the Commission) must implement near-term Resource Adequacy (RA) reform that will more accurately account for the benefits clean energy resources bring to the grid and allow these resources to compete on a level playing field with conventional generation. Namely, the Commission must adjust the RA counting rules for hybrid solar + storage for use in this procurement. These resources constitute the majority of clean resources that are deep in the development process and available for interconnection in the 2023-2026 timeframe. If counted and compensated correctly for their contributions, hybrids can help alleviate load in the critical net peak hours and provide needed grid flexibility to effectively match demand to supply.

Second, transmission analysis, planning and, perhaps most importantly, actual construction, must account for confounding variables that are not readily discernable in the analysis or available for public viewing. Adequate data transparency is critical to ensure that, once identified as needed and financed, transmission projects are sited, permitted and constructed carefully but expeditiously. In turn, confirming the amount of transmission that can be available to new clean energy resources in this procurement timeframe will facilitate the integration of these resources onto the grid. Otherwise, lack of timely transmission may hinder clean energy deliverability to the customer, which would defeat the purpose of supplying new capacity to the grid in the short-term while being consistent with the State's grid decarbonization effort.

Third, the Commission should utilize a least cost/best fit levelized cost of energy (LCOE) metric for resource selection, as opposed to the proposed net qualifying capacity (NQC) RA metric. While NQC is a useful metric with which to measure overall required resource quantity, individual resource selection must be decided upon using the LCOE metric. This will ensure that the most economic resources are selected, to simultaneously minimize financial impacts while

ensuring the optimized portfolio provides maximum grid benefits. As such, this procurement should utilize a bottom up approach, whereby each LSE procures their share of resource need and any residual procurement is based off a system-wide analysis of grid need.

Seeing as this Mid-Term Reliability Procurement is likely to be the last large-scale procurement for at least the next 5-7 years, CEERT strongly encourages the Commission to heed these recommendations, in addition to those made below in response to the ALJ Ruling's questions. The significance of this procurement cannot be minimized. The Commission must use this opportunity to advance the State's climate and clean energy goals, add meaningful capacity and resource diversity to the grid, and eradicate the environmental injustices that continue to burden California's under-served communities through the perpetual re-authorization of the oldest, least efficient, most polluting, most prone to breakdown elements of the natural gas fleet. It is these Korean War era facilities that put the most pressure on a fragile natural gas transmission and distribution system, have the worst land use profile, cause the most pollution in disadvantaged communities, and make the electric grid most vulnerable to price spikes when demand is high.

II.
CEERT'S RESPONSES TO THE QUESTIONS IN THE ALJ RULING PERTAINING TO PLANNING STANDARDS

1. **Please comment on the appropriateness of a 20.7 percent PRM, which includes additional operating reserves, for purposes of the mid-term reliability analysis included in this ruling. If relevant, proposes alternatives and explain your rationale.**

CEERT is concerned that simply raising the planning reserve margin (PRM) to 20.7% is not sufficient to address reliability needs in the face of changing grid portfolio composition and increasing uncertainty from climate change-induced extreme weather patterns. Reflecting its

Reply Comments[1] on the *Order Instituting Rulemaking to Establish Policies, Processes, and Rules to Ensure Reliable Electric Service in California in the Event of an Extreme Weather Event in 2021* (R. 20-11-003), CEERT recommends addressing uncertainty directly and transparently through using an unforced capacity (UCAP) metric. Using UCAP would account for resource uncertainty directly by penalizing resources with high forced outage rates.

CEERT believes that simply raising the PRM does not directly address this uncertainty. The PRM will become more and more blunt as California's resource portfolio continues to evolve and demand response (DR), distributed energy resources (DERs), variable energy resources (VERs), and hybrids supply grid services to an increasing degree. Instead, the Commission should study the individual elements that affect the PRM (i.e., load forecast error, forced outage rates, heat related capacity derates, VER uncertainty, coincident and non-coincident factors) to directly address uncertainty and thereby reduce the PRM to the residual unknown elements. Thus, CEERT strongly recommends utilizing UCAP or a similar metric for resource planning purposes.

2. Comment on the appropriateness of a 20.7 percent PRM for long-term planning purposes for IRP in general. If relevant, propose alternatives and explain your rationale.

Please see CEERT's response to Question 1. CEERT strongly recommends utilizing UCAP or a similar approach for resource planning purposes. Apart from accuracy concerns, employing a UCAP metric will also in part directly address concerns from CEERT and other parties that the additional bulk "all source procurement" will result largely in fossil fuel resource procurement, especially with the lack of greenhouse gas (GHG) considerations. Directly addressing uncertainty in resource planning, rather than just increasing the PRM, will be more

[1] CEERT Reply Comments on the R.20-11-003 Order Instituting Rulemaking, at p. 10.

effective, align better with the realities of resource performance, and incentivize increased reliance on clean energy resources.

3. **Comment on the appropriateness of a 1-in-2 weather forecast for the electricity demand forecasts for purposes of the mid-term reliability analysis.**

Similar to UCAP's ability to account for resource uncertainty such as forced outage rates, resource planning must also account for the uncertainties associated with climate change as it begins to materialize in increasingly frequent extreme weather events. Thus, CEERT believes that capturing this uncertainty requires reliance on a 1-in-10 planning standard.

4. **Comment on whether the proposed increase to the PRM sufficiently addresses the likelihood of increasing frequency and intensity of extreme weather events, or whether this risk should be incorporated directly into a reliability-based planning standard (such as, for example, the use of a 1-in-5 or 1-in-10 forecast or incorporating climate models).**

Please see CEERT's responses to Questions 1-3 above. CEERT does not believe that the proposed increase to the PRM sufficiently addresses the likelihood of increasing frequency and intensity of extreme weather events. Rather, CEERT strongly supports incorporating the risk directly into a reliability-based planning standard based on a 1-in10 load forecast *and* utilizing UCAP to account for uncertainties in resource performance. The resulting PRM would then be much lower than the current 15% but much more accurate and targeted to the sources of uncertainty.

5. **Comment in general on your preferred method for setting an IRP long-term reliability-based planning standard. Explain your rationale.**

Please see CEERT's response to Questions 1-4 above. CEERT believes that a more effective approach to long-term reliability-based planning standard includes studying each element that plays a part into setting the PRM (load forecast error, forced outage rates, VER uncertainty, coincident and non-coincident factors, etc.). The Commission should then directly

and transparently address each factor through specified methodologies such as UCAP and reduce the PRM to residual unknown elements.

III.
CEERT'S RESPONSES TO THE QUESTIONS IN THE ALJ RULING PERTAINING TO ANALYSIS OF NEED

6. Comment on whether you agree with the approach proposed here for determining need, which corresponds to the "Need Determination – Reliability – Option 3" in Section 6.5.2 of the Procurement Framework Staff Proposal. If you have an alternative proposal, describe it in detail and/or identify whether it is one of the other options included in the Procurement Framework Staff Proposal.

In the Stack Analysis from the ALJ Ruling, staff used NQC, or capacity value measured in dollar per kilowatt month, as the principal metric to be used in resource selection for this procurement. CEERT wishes to make two points on this fact.

First, all other resource attributes would be treated as adders or deducts, whether quantitative or qualitative, in this calculation. Thus, energy cost – the primary determinant of rates – is relegated to an adder and does not factor in attributes such as GHG and criteria pollutant emissions or resiliency benefits. Furthermore, the procurement ordered in response to this Ruling will be a very large, long-term IRP procurement and not a short-term RA auction. These resources will be contracted for 30 to 40 year lifespans, utilized every day and most hours of the day, as opposed to being allocated to backup generation for relatively rare extreme events.

Given the long and often utilization of these resources, CEERT believes the principal metric for resource selection must be the least cost/best fit LCOE metric, measured in dollar per megawatt hour. The investor-owned utilities (IOUs) use this metric for all other long-term purchases. NQC is an appropriate metric with which to determine procurement *quantity* since it is the primary identified immediate need. However, resource selection within that procurement

amount must be adopted and approved through the least cost/best fit methodology to ensure a cost effective, resilient, and diverse resource portfolio.

Second, while CEERT believes resource selection should be based on least cost/best fit LCOE, if the Commission moves forward with using an NQC metric – even if only a major element in the least cost/best fit matrix – it must be calculated correctly. One of the findings of the *Final Root Cause Analysis of the Mid-August 2020 Extreme Heat Wave* is that the gas fleet did not perform up to its NQC rating during the heat storm.[2] The fleet's NQC rating is set at nameplate capacity and an assumed average 4.5% "forced outage rate" is added to the PRM. However, if the raw NQC rating is used for resource selection, the model will miss not only the assumed 4.5%, but also the significant issue of thermal derates, to all of the gas system. The base NQC rating does not decern between plants that are properly maintained and available, and those plants that show up with flat tires and dead batteries. This fact is supported by the California Independent System Operator's (CAISO's) analysis in its RA Enhancements Initiative, which shows that the true "forced outage rate" of the entire fleet during stress events is as high as 20%, with an average reduction in NQC over the past three years of 12.5%.[3]

Derates are used in other, non-gas resource NQC calculations, manifesting either through effective load carrying capacity (ELCC) calculations for solar and wind or through "historic measure of performance" for resources like hydro. Thus, in addition to primarily relying on least cost/best fit LCOE for resource selection, the Commission, in absence of a UCAP-like methodology, needs to discount the NQC RA value of any new gas investment by derating gas nameplate capacity by at least 12.5%.

[2] Final Root Cause Analysis of the Mid-August 2020 Extreme Heat Wave, at pp. 47-48.
[3] Day 1 Presentation: RA Enhancements Draft Final Proposal and Sixth Revised Straw Proposal. CAISO January 5, 2021.

In addition, the Commission bases the resource need on a baseline of resources that were online or contracted for and approved by June 30, 2020.[4] However, this calculation will only be accurate if the Commission includes an analysis of transmission availability to facilitate the interconnection and deliverability process of the contracted and approved projects currently in development. Thus, the Commission must account for actual, rather than theoretical, transmission deliverability in the stack analysis. The grid itself has no knowledge of the Commission or this procurement. It only responds to Kirschoff's Laws, steel in the ground, and real time dispatch.

CEERT believes rectifying RA metrics and accounting for deliverability issues through effective transmission planning and execution are critical components to the success of this Mid-Term Reliability Procurement. This planning and procurement effort will yield an incorrect assessment of resource type and location needs if these factors are not accounted for correctly. Thus, CEERT strongly encourages the Commission to assume a least cost/best fit LCOE metric for resource selection and analyze resource deliverability based on true transmission availability, including ensuring all previously approved transmission projects are complete.

7. **Comment on whether you agree with the recommended Mid-Need scenario, explaining why or why not. If you have an alternative proposal, describe it in detail. Also note that Section 6.6 of the Procurement Framework Staff Proposal includes recommendations for need determination during the current IRP cycle (referred to as Phase 1). Comment on whether you agree with those recommendations, to the extent not already addressed by your responses to the questions above, in the context of the procurement proposed in this ruling and/or related to the remainder of this IRP cycle.**

CEERT understands the recommended Mid-Need scenario, but believes the High Need Case is a more realistic scenario to plan around. The increasing probability of load growth due to successful, and beneficial, electrification of other sectors in response to decarbonization goals is

[4] ALJ Ruling, at p. 9-10.

and will continue to shift California's energy paradigm. A recent letter from Silicon Valley Power to the CAISO[5] regarding the "sudden" appearance of new load equivalent to half of one Diablo Canyon unit in Santa Clara County is a harbinger of things to come. Historically, resource planning revolved around mitigating the risk of over-procurement, as load growth was either flat or trending down. In addition to other unknowns such as those associated with climate change, recent and expected load growth now makes under-procurement an increasingly likely possibility and yields conditions for shortages. As such, CEERT believes this shift in generic risk profile points to the need to direct procurement with a bias towards the High Need Case of 10,400 MW.

IV.
CEERT'S RESPONSES TO THE QUESTIONS IN THE ALJ RULING PERTAINING TO TIMING OF PROCUREMENT

8. Comment on the total annual capacity requirements recommended. If you make any adjustments, explain your rationale.

CEERT agrees with the accelerated timeframe of this procurement, based on requiring about 40% of the yearly resource need to be procured by the prior year. However, CEERT believes the Commission must address and account for the need for timely transmission availability. While minor improvements to the transmission planning process (TPP)-related planning and approval cycles between the CAISO and the Commission may help smooth out the approval process for transmission projects, effective resource procurement will not come to fruition unless "approved" transmission projects actually get constructed and energized on time, on budget, and in scope to allow resources to interconnect and deliver incremental energy to the grid.

[5] Public-Comment-Letter-from-SVP-re-Transmission Plan-Mar 22-2021.pdf which can be found at http://www.caiso.com/informed/Pages/RecentDocuments.aspx

While this is clearly a joint effort between the CAISO and the Commission, the Commission and its jurisdictional IOUs are the primary entities responsible for the execution of steps beyond project approval. Thus, oversight by the Commission to ensure that these approved projects actually materialize is essential, especially as procurement policy abruptly changes and the State's goals accelerate.

Transmission availability presents a potentially large obstacle to California's grid decarbonization. Load-serving entities can procure as many resources as the procurement need requires, but unless that energy has an avenue to reach customers, the additional capacity is non-existent. Therefore, CEERT strongly urges the Commission to re-analyze transmission capacity requirements based around an input of *actual* transmission availability as opposed to using theoretical transmission availability from projects approved in the TPP up to 7-10 years ago. The Commission must ensure the transmission actually exists and is available for resource delivery when needed.

At the March 10 IRP Mid-term Reliability Analysis and Proposed Procurement Requirements Workshop (March 10 Workshop), Commission Staff mentioned that interconnection issues were slightly out of scope of this Ruling. If this is the case, CEERT strongly suggests that the Commission revise the scope of this procurement Ruling to not only address, but place focus on interconnection issues. Transmission interconnection and deliverability issues are the keystone of this procurement and must be top priority for immediate analysis to ensure this effort is successful.

9. **Should the Commission consider requiring additional capacity, to account for contingencies such as contract delay or failure? If so, how much, and on what basis?**

   CEERT does not have a response at this time but reserves the right to comment in reply.

V.
CEERT'S RESPONSES TO THE QUESTIONS IN THE ALJ RULING PERTAINING TO RESOURCES ELIGIBLE TO MEET IDENTIFIED NEED

10. The process of identifying resource types and amounts that are cost-effective, and can potentially fulfill a procurement need, but have market or other barriers to procurement, is explored in Section 6.5.4 of the Procurement Framework Staff Proposal. Comment on the approach described in this ruling, with reference to the Staff Proposal and/or other approaches you recommend.

CEERT strongly supports the Commission's attention to resource diversity in this Ruling. Furthermore, CEERT agrees with the inclusion of planning for and procuring long-lead time resources that can provide base load capacity, meet reliability needs, and help California meet its climate change goals. However, CEERT believes a more comprehensive approach to resource diversity is essential to build the correct portfolio of resources.

Thus, the Commission should also place emphasis on studying non-traditional resources such as hybrids, virtual power plants, and microgrids, in the context of helping to fulfill mid-term procurement needs. Neither the capacity expansion models, nor the production cost models used to construct the planning portfolios in this IRP process account for the nuances and complexities of forming a reliable, diverse, and clean resource mix. The high level of dependency on modeling in this process warrants a serious re-examination of how models like RESOLVE and SERVM handle these resources. The CAISO has also started to realize that its large state estimator driven Security Constrained Economic Dispatch Model (SCED), which drives its real-time operations, needs comprehensive upgrades and potentially an eventual complete overhaul in the future as the resource mix evolves.

Beyond resources modeling, significant attention needs to be given to how these resources are compensated and audited for performance to align with the evolving CAISO market design and Commission-administered RA program. The idea of a "perfect generator" is

extinct and has outlived its usefulness for purposes in both the IRP and RA. The baseline for how novel resources is measured for capacity must evolve past comparison to the imperfect performance of the natural gas fleet, accurately represent resource operations, and account for the benefits each resource provides to the system as a whole.

11. Comment on whether the suggested amount of geothermal and/or long-duration storage resources should be required to be procured as part of the mid-term procurement requirements.

CEERT is supportive of the suggested amounts of geothermal and long-duration storage. However, CEERT echoes party comments from the March 10th Workshop regarding the availability of these resources to serve the grid; not necessarily because of a lack of resource supply, but rather the potential lack of transmission available to deliver these resources.

Thus, as discussed in its response to Question 8, the Commission must use *actual* transmission availability data based on completed or projects in development rather than the TPP resource portfolio of "approved" projects to accurately assess transmission need. As highlighted by its recent en banc hearing[6] and corresponding white paper on electric rates,[7] transmission costs are of great concern to the Commission. However, the Commission's focus on transmission costs ignores the prominent role distribution costs play in rate increases. CEERT recommends the Commission refers to Chapter 7 of the recent LA 100 Study, which provides an excellent illustration of how to frame and analyze distribution issues in the State.[8]

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[6] En Banc Hearing on Energy Rates and Costs, February 24, 2021.
[7] *Utility Costs and Affordability of the Grid of the Future: An Evaluation of Electric Costs, Rates, and Equity Issues, Pursuant to P.U. Code Section 913.1.* CPUC. February 2021.
[8] Palmintier, Bryan, Meghan Mooney, Kelsey Horowitz, Sherin Abraham, Tarek Elgindy, Kwami Sedzro, Ben Sigrin, Jane Lockshin, Brady Cowiestoll, and Paul Denholm. 2021. "Chapter 7: Distribution System Analysis." In The Los Angeles 100% Renewable Energy Study, edited by Jaquelin Cochran and Paul Denholm. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-79444-7. https://www.nrel.gov/docs/fy21osti/79444-7.pdf.

Failing to account for different transmission project types in analysis of transmission issues could be detrimental to California's clean energy transition. As such, CEERT strongly believes that a more comprehensive analytical approach is warranted to pinpoint exactly where rate increases are originating and locate minor but necessary upgrades to the system. Furthermore, in the longer term, consideration needs to be given to alternative financing structures for transmission development, including longer project life and elements of public ownership with favorable tax and cost of capital considerations.

12. Describe the risks you see, if any, in relying on specific resource types to fill the proposed procurement need, as well as provide suggestions for how they could be mitigated. For example, there could be some type of identified future juncture where LSEs and/or the Commission could evaluate risks prior to moving forward fully with procurement. As part of this, describe any challenges you see (for example, supply chain issues, siting challenges) that may impact the ability to come online with the timing and amounts proposed.

As discussed in response to Questions 10 and 11, CEERT strongly supports the focus on resource diversity in this procurement and its explicit inclusion of geothermal and long-duration storage. However, CEERT also supports a "bottoms up" procurement structure, whereby individual LSEs will procure their necessary allotment of capacity to fit their need and distinct load shape, and after which a system-wide assessment may reveal gaps that need to be filled through backstop procurement of synergistic resources.

Several layers of uncertainty are simply inevitable despite tireless and expert maintenance of the modeling platform. As more "bottom up" procurement by customers and numerous LSEs occurs, more emphasis needs to be placed on the ex post procurement system-level reliability checks of the procured portfolio as a whole. This will direct residual procurement towards resources with specific characteristics and specific locations that are not captured in all source bidding using an NQC – like this Ruling utilizes – or even the much preferred LCOE

metric. These recalibrations will inevitably lead to technology-specific, location specific residual procurement. The focus on geothermal and long-duration storage are early and logical examples of this pattern.

13. **Comment on the proposal for all LSEs to engage in joint procurement of geothermal and/or long-duration storage, with the potential for IOUs to be required to backstop such procurement. This suggestion corresponds to Section 7.2.2 of the Procurement Framework Staff Proposal. If you have an alternative proposal, describe it in detail and/or identify whether it is one of the other options included in the Procurement Framework Staff Proposal. In addition, comment on whether identifying need for backstop procurement in 2023 would allow sufficient time to contract for and build these resources by 2025, and, if not, how you would propose to address this timing issue.**

CEERT is supportive of joint procurement of geothermal and/or long-duration storage but believes the joint effort must be formed correctly to yield the most benefit. The recent formation of a Joint Powers Authority by a number of California's community-choice aggregators (CCAs) and the long track record of similar structures by the small, medium, and large municipal utilities in the Southern California Public Power Authority (SCAPPA) and the Northern California Power Authority (NCPA) are good archetypes for a joint procurement structure.

14. **Comment on how fossil-fueled resources should be treated for purposes of compliance with the procurement requirements proposed in this ruling. Include responses to the potential limitations suggested above and/or propose additional restrictions, if you feel that fossil generation should count but be subject to limits.**

CEERT believes that this procurement, likely the last large procurement for the next 5 to 7 years, must strive to yield the cleanest resource portfolio possible. Air quality impacts and GHG emissions, in addition to LCOE, must form the top criteria for resource selection, as the public health impacts of fossil-fueled resources on surrounding communities are inexcusable with the numerous viable alternatives that have yet to be exhausted. California's economy-wide decarbonization will not be successful if the State continues to allow and excuse environmental

injustices. Increased reliance on California's natural gas system is contrary to all goals of this State and to the well-being of its residents. Even the Southern California Gas Company itself recognized the danger and the promise here when it made its recent press release of a reimagined natural gas grid as viewed from its narrow corporate perspective.[9]

As clearly demonstrated by significant events such as San Bruno and Aliso Canyon, system corrosion in the desert backbone transmission, and the fuel system freeze ups in Texas in 2011 and most recently last month's grid collapse, the reliability and resiliency issues extend far beyond individual forced outage rates. Rather, these issues cause system-wide resiliency issues and result in spikes to burner tip fuel prices, which flow directly to customers through electric rates. This issue needs significant consideration as we progress towards a low carbon grid that will increasingly be unable to support expenditures required to harden the fuel supply system at current demand levels while simultaneously electrifying sectors currently served by gas.

Thus, CEERT believes this procurement should heavily favor clean energy resources and exclude natural gas expansion. This procurement differs from the Emergency Reliability proceeding, which has unfortunately allowed for natural gas expansion to address near-term reliability issues. The State has time in the mid-term to plan for and procure clean resources, but this effort must begin now. Considering this will likely be the last big procurement for the next 5 to 7 years, the State must show favor to the resources that will be most effective to its grid transformation.

[9] SoCalGas aspires to net-zero greenhouse gas emissions by 2045, Cal Matters, March 23, 2021

15. Comment on whether firm imports should be allowed to count towards the required capacity proposed in this ruling, and if such resources should be required to be committed to California via pseudo-ties or dynamic scheduling. Include any other limitations you would propose.

CEERT believes that firm imports should be allowed to count towards the required capacity proposed in this Ruling. Firm imports that have both a generation source and transmission component have been relied on to provide firm capacity to California for time immemorial. The State is currently, and will continue to be for the foreseeable future, a large net importer from other regions of the interconnected Western Electricity Coordinating Council (WECC) grid to the benefit of all entities involved. As these trends evolve, it will be necessary to adjust specific policies to ensure firmness of both imports and exports. Reciprocity, fairness, and mutual respect are the foundational principals of this critical trading pattern and simply must be respected going forward. To this end, CEERT supports the revisions to trading rules that were developed by CAISO through a WECC-wide stakeholder process to account for lessons learned from similar rules in other regions of the country.

VI.
CEERT'S RESPONSES TO THE QUESTIONS IN THE ALJ RULING PERTAINING TO NEED ALLOCATION TO LSEs

16. Comment on the appropriate way to handle allocation of responsibility to LSEs for purposes of the reliability capacity needs identified in this ruling. The approach proposed here corresponds to "Need Allocation – Specific – Option 2" in Section 7.1 of the Procurement Framework Staff Proposal. If you have an alternative proposal, describe it in detail and/or identify whether it is one of the other options included in the Staff Proposal.

CEERT does not have a response at this time but reserves the right to comment in reply.

17. Comment on the best way to handle load migration during the period of a Commission order and online dates proposed in this ruling. If you support the concept of using a PCIA approach, what vintage dates should apply?

CEERT does not have a response at this time but reserves the right to comment in reply.

VII.
CEERT'S RESPONSES TO THE QUESTIONS IN THE ALJ RULING PERTAINING TO NEED FOR BACKSTOP PROCUREMENT AND ASSOCIATED COST ALLOCATION

18. Comment on the proposal that non-IOU LSEs may not opt out of self-providing their share of new capacity found to be needed for long-term reliability. This corresponds to the "Procurement Entity – Self Provision – Option 2" in Section 7.2.2 of the Procurement Framework Staff Proposal. If you have an alternative proposal, describe it in detail and/or identify whether it is one of the other options included in the Staff Proposal.

CEERT strongly supports a primary reliance on bottom up procurement by all LSEs. Subsequently, if backstop procurement is deemed necessary, residual procurement should be based on analysis of the system-wide portfolio subject to residual procurement by the IOUs and cost allocation to other LSEs and non-participating customers. It is essential to minimize the fraction of allocated costs; thus, environmental justice factors and income-based allocations must be the first consideration in this decision.

19. Comment on the proposed mechanism for backstop procurement, which corresponds to "Procurement Entity – Type – Option 1" in Section 7.2.2 of the Procurement Framework Staff Proposal. If you have an alternative proposal, describe it in detail and/or identify whether it is one of the other options included in the Staff Proposal.

Please see response to Question 18.

20. If the IOUs are required to act as central procurement entities, for geothermal, long-duration storage, or backstop procurement in general, what requirements should be associated with the operating arrangements for those resources? Comment on issues and options explored in Section 7.2 of the Procurement Framework Staff Proposal.

Please see response to Question 18.

21. Section 7.2 of the Procurement Framework Staff Proposal puts forward Commission staff recommendations for procurement and operating entity direction during Phase 1. Comment on whether you agree with the recommendations, to the extend not already addressed by your responses to the questions above, in the context of the procurement proposed in this ruling.

Please see response to Question 18.

22. Comment on whether the D.19-11-016 modified CAM proposed cost allocation is sufficient for purposes of the backstop procurement proposed in this ruling, or if you recommend a different approach, fully describe it along with your rationale.

Please see response to Question 18.

VIII.
CEERT'S RESPONSES TO THE QUESTIONS IN THE ALJ RULING PERTAINING TO APPROVAL PROCESS

23. Comment on the approval process that should be used for the IOU procurement that would be required as suggested in this ruling, which corresponds to "Procurement Approval – Option 2" in Section 8.2 of the Procurement Framework Staff Proposal. If you have an alternative proposal, describe it in detail and/or identify whether it is one of the other options included in the Staff Proposal.

CEERT believes that the accelerated nature of this procurement must be balanced by an appropriate but timely stakeholder input into the approval process. Confidentiality can be a key consideration in this process. While it recognizes that certain market sensitive and security considerations warrant confidential treatment, CEERT believes that appropriate data transparency standards must be maintained. Creating a balance between a level of confidentiality and necessary transparency will greatly smooth the project approval process, whether that be via Tier 1 or Application. CEERT supports the Commission's proposal for a more stringent approval process for fossil fuel resources, including having fossil fuel generation procured through an Application process with strict GHG emission considerations and conformance to long-term resource mix analysis under SB 100 conditions.

24. Section 8 of the Procurement Framework Staff Proposal puts forward staff recommendations for the procurement approval processes during Phase 1. Comment on whether you agree with the recommendations, to the extent not already addressed by your response to the question above, in the context of the procurement proposed in this ruling

CEERT does not have a response at this time but reserves the right to comment in reply.

IX.
CEERT'S RESPONSES TO THE QUESTIONS IN THE ALJ RULING PERTAINING TO METHODS OF COMPLIANCE

25. Comment on whether marginal or average ELCCs should be used for counting LSEs' procurement and assessing compliance with the procurement requirements proposed.

CEERT strongly believes that marginal Effective Load Carrying Capacity (ELCC) must be used for counting LSEs' procurement and assessing compliance with the proposed procurement requirements. However, CEERT also suggests assigning at least a portion of the associated "diversity benefit" due to synergy between solar and storage back to a standalone solar project on a system that has ample standalone storage. To continue to ignore this benefit and assign zero NQC value to new solar, as proposed in this current RA cycle, will hinder the efficacy of this procurement.

26. Comment on the proposed minimum ten-year contract requirement for new resources.

CEERT believes that there should not be a contract term requirement for new resources. Instead, CEERT proposes that the Commission should poll the request for offer (RFO) participants, discuss the price impact of varying contract terms, and resolve issues in the Approval process.

27. Comment on how imports should be treated for counting and compliance purposes for the procurement proposed in this ruling.

CEERT recommends the Commission adopt the CAISO's latest proposal for treatment of firm imports.[10]

28. Comment on whether you think that any fields in the baseline generator list need to be kept confidential when staff updates it with new in-development resources identified from the Resource Data Templates in LSE plans, as proposed to serve as the baseline for the procurement proposed in this ruling.

CEERT is vehemently opposed to keeping any fields in the baseline generator list confidential when staff updates it with new in-development resources. CEERT believes the input assumption table needs to be recalibrated to actual system performance of the included resources. For example, assigning a 78% derate factor for geothermal and a 96% for gas is inaccurate, as the data from the August 2020 outages suggests a reverse performance. This planning and procurement process must be as public and transparent as possible.

X.
CEERT'S RESPONSES TO THE QUESTIONS IN THE ALJ RULING PERTAINING TO PENALTIES FOR NONCOMPLIANCE

29. Comment on whether CONE is an appropriate penalty for capacity that LSEs fail to procure, in addition to backstop procurement. This is a combination of "Enforcement – Option 1" and "Enforcement – Option 2" in Section 9.2.2 of the Procurement Framework Staff Proposal. Suggest any alternative compliance and enforcement options.

CEERT does not have a response at this time but reserves the right to comment in reply.

[10] CAISO Opening Comments on Track 3.B.1, Track 3.B.2 and Track 4, filed on March 12.

30. Section 9 of the Procurement Framework Staff Proposal puts forward staff recommendations for compliance, monitoring, and enforcement during Phase 1. Comment on whether you agree with the recommendations, to the extent not already addressed by your responses to the questions above, in the context of the procurement proposed in this ruling.

CEERT believes that compliance, monitoring, and enforcement must be harmonized with minimized, residual central procurement and associated cost allocation.

XI.
CEERT'S RESPONSES TO THE QUESTIONS IN THE ALJ RULING PERTAINING TO RELATIONSHIP OF IRP PROCUREMENT AND THE CENTRAL PROCUREMENT ENTITY FOR RESOURCE ADEQUACY

31. Comment on the suggested clarification to counting of capacity sold or shown to the CPE for local resource adequacy purposes.

CEERT does not have a response at this time but reserves the right to comment in reply.

XII.
CEERT'S RESPONSES TO THE QUESTIONS IN THE ALJ RULING PERTAINING TO RELATIONSHIP WITH POTENTIAL PROCUREMENT EMANATING FROM PREFERRED SYSTEM PORTFOLIO

32. Parties are invited to comment on or propose alternative compliance regimes to the proposals in this ruling to address the longer-term system reliability requirements identified in the IRP context.

CEERT believes it is critical that the Commission explicitly clarify how this procurement overlaps with the RA proceeding and resulting requirements. CEERT strongly recommends the Commission eliminate regulatory siloing to the greatest extent possible between this IRP proceeding and the RA proceeding. Thus, the Commission must adjust the RA program prior to this procurement to correctly account for the contribution of resources like hybrid solar + storage to the grid. These resources will not be able to compete on a level playing field with conventional resources if this adjustment is not made. CEERT is concerned that lack of evolution of RA counting rules, especially for hybrid solar + storage resources, will result in this

procurement defaulting to the fossil fuel generators around which the current RA paradigm and its accounting rules is formed.

The resources that result from this Mid-Term Reliability Procurement will be long-term and set the stage for California's decarbonization future going forward. As such, this procurement must take a least cost/best fit approach to resource selection as opposed to utilizing RA NQC. Furthermore, critical near-term updates to the RA paradigm must be taken into account in this procurement. Taken together with a least cost/best fit approach, updated counting rules for DERs and utility scale hybrid solar + storage will allow this procurement to yield a diverse portfolio of resources that meets system needs.

33. Comment on any other aspects of the Phase 1 recommendations in the Procurement Framework Staff Proposal not already addressed in your responses to prior questions.

CEERT does not have a response at this time but reserves the right to comment in reply.

XIII.
CONCLUSION

CEERT appreciates the Commission's effort to address Mid-Term Reliability issues as the retirement of Diablo Canyon and the expiration of the once-through-cooling plants rapidly approach. Concurrently, the consequences of climate change are rearing their ugly head, adding further uncertainty to the future of California's energy grid. With this likely being the last large procurement for the near future, the Commission must ensure this procurement yields a cost effective, resilient, diverse, and clean resource portfolio to effectively address the grid's most pressing concerns. Increasing the quality of life for the State's most vulnerable, rate affordability, grid reliability, and climate change mitigation can all be addressed and achieved through this procurement. As such, CEERT urges the Commission to include near-term RA reforms and transmission planning transparency in this effort to ensure resulting resources, which will be in

operation for decades to come, are in the best interest of California ratepayers and the State's policy goals.

Respectfully submitted,

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