

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

Order Instituting Rulemaking to Continue  
Electric Integrated Resource Planning and  
Related Procurement Processes.

Rulemaking 20-05-003  
(Filed May 7, 2020)

**COMMENTS OF THE CALIFORNIA ENERGY STORAGE ALLIANCE ON THE  
ADMINISTRATIVE LAW JUDGE'S RULING SEEKING COMMENTS ON  
PORTFOLIOS TO BE USED IN THE 2021-22 TRANSMISSION PLANNING PROCESS**

Alex J. Morris  
Executive Director

Sergio Dueñas  
Senior Regulatory Consultant

**CALIFORNIA ENERGY STORAGE ALLIANCE**  
2150 Allston Way, Suite 400  
Berkeley, California 94704  
Telephone: (510) 665-7811  
Email: [cesa\\_regulatory@storagealliance.org](mailto:cesa_regulatory@storagealliance.org)

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In accordance with the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the California Energy Storage Alliance (“CESA”) hereby submits these comments to the *Administrative Law Judge’s Ruling Seeking Comments on Portfolios to be Used in the 2021-22 Transmission Planning Process* (“Ruling”), issued by Administrative Law Judge (“ALJ”) Julie A. Fitch on October 20, 2020.

**I. INTRODUCTION.**

CESA appreciates the work done by the Commission, the California Independent System Operator (“CAISO”), and the California Energy Commission (“CEC”) in the development of a robust methodology to translate the results derived from the Integrated Resource Planning (“IRP”) process into actionable inputs for the Transmission Planning Process (“TPP”). In general, CESA supports the framework proposed in the Ruling and its Attachments. CESA specifically supports the proposals regarding the mapping of storage resources. Considering means to maximize available solar for charging, avoid triggering new transmission, reduce congestion and curtailment, reduce opportunities for market power, and reduce air criteria pollutants, especially in disadvantaged communities (“DACs”), are all factors that can strengthen the TPP while contributing to decarbonization, and systemwide and local reliability.

While the Ruling and its Attachments represent significant advancements to the TPP and busbar mapping processes, there are still areas where CESA sees improvements are possible. In these comments, CESA focuses on the following topics:

- The Commission should consider procurement directives to bolster the compliance of IRP-derived portfolios relative to the criteria specified in Attachment A of the Ruling.
- The Commission should consider the potential reliability shortcomings of the portfolios selected for the TPP in light of CAISO’s comments regarding the individual IRP filings done by load-serving entities (“LSEs”).
- The Commission should consider sharing more detailed interim information on the possible transmission upgrades considered within the portfolios used in the TPP.
- The Commission should include economic benefits to the factors considered within the energy storage busbar mapping process.

## **II. RESPONSES TO QUESTIONS IN THE RULING.**

**Question 1: Please comment on Attachment A, the Framework for TPP Portfolio Selection, and recommend any changes that should be made; explain your rationale.**

CESA supports the Framework for TPP Portfolio Selection as described in Attachment A of the Ruling. This framework provides a transparent approach to selecting the IRP-derived portfolios that would inform the TPP. As stated within Attachment A, this framework establishes a set of guiding principles for the selection of portfolios.<sup>1</sup> Moreover, Attachment A includes a set of criteria any selected portfolio must comply with in order to be used for TPP purposes.<sup>2</sup> While

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<sup>1</sup> Attachment A, at 2-3.

<sup>2</sup> *Ibid*, at 5-6.

CESA views the framework as workable and beneficial, it is noteworthy that some of the aforementioned criteria have proven to be challenging to comply with given the current IRP process. In particular, CESA provides comments on the issues related to expected resource deployments and systemwide reliability.

In the set of required criteria included in Attachment A, the Energy Division (“ED”) states that a viable portfolio for the TPP process must be one where the CAISO can “reasonably expect that generic resources will come to fruition.”<sup>3</sup> CESA agrees with this criteria. As such, it is vital the Commission uses the tools at its disposal to signal not only to the ISO, but to market participants, sellers and buyers alike, that the resources selected in the IRP process will be integrated to California’s electric grid. In order to do so, and considering the challenging timelines that characterize the resource development and interconnection processes, CESA recommends the CPUC accompany the selection of the Reference System Portfolio (“RSP”) and the development of the Preferred System Portfolio (“PSP”) with procurement directives, as enabled by the IRP’s Procurement Track. The incorporation of formal, timely procurement directives to the regular cadence of the IRP process will provide certainty to the ISO regarding the deployment of incremental capacity. Moreover, given the Commission’s experience with urgent procurement directives in light of systemwide capacity shortfalls, the issuance of deployment directives for the future could be eased if done at a frequent pace.

Attachment A additionally mentions that a portfolio selected for the purposes of the TPP must “meet state goals and CPUC requirements, such as meeting [Renewable Portfolio Standard] RPS and [greenhouse gas] GHG reduction targets, and should provide overall supply adequacy

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<sup>3</sup> *Ibid*, at 5.

reliability.”<sup>4</sup> While CESA agrees with this criterion, it is worth noting that the portfolios derived from RESOLVE within the IRP process might not comply with it. The limitations of the RESOLVE model have been thoroughly accounted for within the IRP proceeding. In fact, in response to the LSE-specific individual IRP filings, the CAISO conducted an analysis of the 38 million metric ton (“MMT”) IRP portfolio.<sup>5</sup> In said assessment, the ISO notes that (1) the 46 MMT IRP portfolio surpasses the emission metric associated to its name, resulting in 50.3 MMT of carbon dioxide emissions; (2) the 38 MMT portfolio did not meet the 0.1 day per year loss of load expectation (“LOLE”) reliability criterion in 2026 or in 2030; and, (3) the 38 MMT portfolio also exceeded the emission metric associated to its name, resulting in 41.2 MMT of carbon dioxide emissions.<sup>6</sup>

The results from CAISO’s analysis illustrate that, despite the establishment of reasonable criteria within Attachment A of the Ruling, the current IRP modeling process is not equipped to produce portfolios that consistently meet said criteria. As a result, the nexus between the IRP and TPP is weakened, since the ISO must cure for the deficiencies of the selected portfolios, oftentimes without clear policy direction from the Commission. As such, CESA recommends increased reliability vetting of the portfolios derived from the IRP process and used for TPP, including, *ad minimum*, (1) a LOLE evaluation for all portfolios and their respective study years; and, (2) the requirement that portfolios selected as RSPs pass the emission constraint not only in RESOLVE, but in the posterior SERVVM evaluation.

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<sup>4</sup> *Ibid*, at 5.

<sup>5</sup> See CAISO, “Assessment of the CPUC-Selected 38 MMT Integrated Resource Plan Portfolio”, October 23, 2020.

<sup>6</sup> *Ibid*, at 1-2.

**Question 2: Do you recommend any changes to the proposed Base Case portfolio in Attachment B? If so, provide justification for your recommended changes.**

In Attachment B of the Ruling, ED proposes to transmit three resource portfolios to inform the CAISO's TPP: the 46 MMT 2019 IEPR portfolio, the 2019-2020 38 MMT 2019 IEPR portfolio, and the Offshore Wind Sensitivity Portfolio.<sup>7</sup> In response to this question, CESA seeks clarifications on some components of these portfolios and provides recommendations on the means to evaluate their reliability.

Attachment B specifies that the first portfolio transmitted for TPP purposes, 46 MMT 2019 IEPR, is an updated version of the 2019 RSP 26 MMT portfolio, adopted by Decision ("D.") 20-03-028.<sup>8</sup> While enlisting the updates applied to this portfolio, ED notes that it has been modified to reflect updated building electrification shapes developed by the RESHAPE model and CEC shapes derived by the CEC's High Biofuels PATHWAYS scenario.<sup>9</sup> CESA seeks clarification on this modification since, as CESA understands the RSP, the RSP was developed using the CEC's High Electrification PATHWAYS scenario, not the High Biofuels scenario. Furthermore, Attachment B notes that the GHG target modeled in 2031 for this portfolio was 44.1 MMT.<sup>10</sup> ED mentions this figure was extrapolated from existing legislation and IRP results; nevertheless, ED does not offer any indication that the portfolio is able to meet this requirement, a criterion necessary according to Attachment A.

These aforementioned issue regarding the compliance with GHG targets feeds into the uncertainty related to the reliability of the overall portfolio. In Attachment B, ED notes that the 46

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<sup>7</sup> See Attachment B.

<sup>8</sup> Attachment B, at 2.

<sup>9</sup> *Ibid.*

<sup>10</sup> *Ibid*, at 3.

MMT 2019 IEPR portfolio has not undergone a LOLE study.<sup>11</sup> Instead, this portfolio has been developed solely to meet the 15% planning reserve margin (“PRM”).<sup>12</sup> As noted in CESA’s response to Question 1, the lack of analysis regarding the reliability of a portfolio used for TPP should not be the norm. It is integral for the timeliness of this process that the Commission transmit viable portfolios; as such, the execution of a LOLE analysis on TPP-bound portfolios must be adopted for upcoming cycles.

Finally, CESA encourages the Commission to share interim transmission results with parties within this proceeding. Attachment B notes that RESOLVE, during its development of the Base Case portfolio, initially identified 645 MW of transmission upgrades needed.<sup>13</sup> CESA believes sharing these interim results with parties can enhance the understanding of the process and enable said parties to provide more substantial recommendations as the TPP unfolds. By understanding where RESOLVE sees the need for transmission upgrades, the Commission, the CAISO, and all parties in this proceeding can collaborate to identify potential improvements to the IRP methodology and the TPP process overall.

**Question 3: Do you recommend any changes to the proposed Policy-Driven Sensitivity portfolios in Attachment B? If so, provide justification for your recommended changes.**

Attachment B includes two portfolios for the Policy-Driven sensitivity analysis conducted within the TPP: the 2019-2020 38 MMT 2019 IEPR portfolio, and the Offshore Wind Sensitivity Portfolio.<sup>14</sup> CESA supports the use of this portfolios, particularly the 2019-2020 38 MMT 2019 IEPR portfolio as it most clearly matches the trend California needs to follow to comply with its

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<sup>11</sup> *Ibid*, at 5.

<sup>12</sup> *Ibid*.

<sup>13</sup> *Ibid*, at 4.

<sup>14</sup> Attachment B, at 2.

ambitious energy and climate targets. While these portfolios are well suited for further policy assessment, it is worth noting both of them suffer from the same analytic deficiencies as the Base Case portfolio. Thus, while supportive of their inclusion, CESA continues to urge the Commission to enhance its vetting of proposed portfolios within the TPP.

**Question 4: Do you agree with the Resource-to-Busbar Mapping Methodology guiding principles in Attachment C? If not, explain why. Are there other principles that should be added?**

Please refer to CESA’s answer to Question 6.

**Question 5: Commission staff has proposed various improvements to the March 30, 2020 version of the Methodology (in Attachment C), and alongside these, has raised “alternative options” for consideration. Should any of the alternative options replace the proposed approach, or do you have other options that should be used instead? If so, clearly specify which topic(s) you are referring to and explain your reasoning.**

CESA offers no comments at this time but reserves the right to do so later in the TPP.

**Question 6: Do you recommend any further changes to the non-battery mapping steps in Attachment C? What changes and why?**

CESA appreciates the work of the Commission to improve on the methodology used for mapping storage assets within the TPP. As stated in Attachment C, the busbar mapping process for battery storage is largely based off commercial interest.<sup>15</sup> CESA considers this starting point as viable given the large amounts of standalone and co-located storage within the CAISO Generator Interconnection Queue.<sup>16</sup> While commercial interest was the initial factor considered for mapping purposes, CESA acknowledges the Commission’s efforts to use this process in a proactive manner to enhance the likelihood California meets a wide range of its policy goals. As such, CESA supports the policy objectives included within Attachment C; namely:

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<sup>15</sup> Attachment C, at 13.

<sup>16</sup> Note that, as within Attachment C, the term “co-located” here is inclusive of both hybrid and co-located resources as defined within the CAISO Hybrid Resources Initiative.



- Increasing the amount of co-located battery resources.
- Reducing congestion.
- Reducing opportunities for market power.
- Reducing local emissions, particularly in areas with high air quality impacts.
- Reducing emissions in DACs.

By incorporating these policy objectives, the Commission has enhanced the busbar mapping process substantially, planning for a deployment strategy that could maximize the systemwide benefits of storage assets while bolstering the reliability and sustainability of locally-constrained or disadvantaged areas. Given these changes, CESA recommends incorporating another layer to the busbar mapping process of energy storage assets.

Within the description of the busbar mapping steps for battery storage, ED notes that it will prioritize siting in areas with available transmission headroom, commercial interest, local capacity requirement (“LCR”) areas, and DACs, in that order.<sup>17</sup> Furthermore, ED notes that co-located deployments will be prioritized.<sup>18</sup> Once the rounds of this process are completed and if there are still unassigned battery resources, ED notes that the remaining batteries would be assigned to the areas external to the ISO footprint.<sup>19</sup> CESA recommends that another layer of benefits is considered prior to the mapping of storage assets in areas external to the ISO: the economic benefits of in-state procurement.

As the target for decarbonization approaches, California is in the unique position to benefit from a substantial increase in “clean energy” jobs. CESA, as well as the Department of Energy

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<sup>17</sup> *Ibid*, at 16.

<sup>18</sup> *Ibid*.

<sup>19</sup> *Ibid*, at 17.

(“DOE”), has previously noted the significant economic benefits derived from the deployment of energy storage resources.<sup>20</sup> In a 2020 report, CESA notes that the recent and current energy storage project procurement, deployment, and operational activity has supported 20,510 jobs in California.<sup>21</sup> Hence, considering these yields is essential when evaluating the tradeoffs between in- and out-of-state deployment. In consequence, CESA recommends incorporating this factor into the process for energy storage busbar mapping.

**Question 7: Do you recommend any further changes to the battery mapping steps in Attachment C? What changes and why?**

Please refer to CESA’s answer to Question 6.

**Question 8: Do you recommend any changes to the Busbar Mapping Criteria & Implementation section of Attachment C? What changes and why?**

CESA offers no comments at this time but reserves the right to do so later in the TPP.

**III. CONCLUSION.**

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

Respectfully submitted,



Alex J. Morris  
Executive Director  
CALIFORNIA ENERGY STORAGE ALLIANCE

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<sup>20</sup> See DOE, “U.S. Energy and Employment Report 2020: 2016-2020 Five-Year Trends”, January 2020. Available at <https://static1.squarespace.com/static/5a98cf80ec4eb7c5cd928c61/t/5e780f28e8ff44374c2db945/1584926525529/USEER+2020+5year.pdf>

<sup>21</sup> See CESA, “Energy Storage: The Next Major Job Creation Opportunity”, May 2020. Available at <https://static1.squarespace.com/static/5b96538250a54f9cd7751faa/t/5ec857f92dd571390c0d1563/1590188026152/2020-05-01+Energy+Storage+Jobs+White+Paper.pdf>