



## **Submit comment on Draft 2021-2022 Transmission Plan**

2021-2022 Transmission planning process

### **1. Please provide your organization's overall comments on the Draft 2021-2022 Transmission Plan Feb 7, 2022 stakeholder call discussion: \***

CESA expresses our general support for the Draft 2021-2022 Transmission Plan, which found the need for 24 projects totaling \$2.944 billion, including 16 reliability-driven projects (\$1.412 billion), 7 policy-driven projects (\$1.512 billion), and 1 economic-driven project (\$20 million). Compared to recent past Transmission Planning Process (TPP) cycles, CESA finds this draft plan as a milestone for identifying and approving a range of policy-driven projects to support future generation resources as identified in the California Public Utilities Commission (CPUC) Integrated Resource Planning (IRP) process. In our recollection, there have been minimal or no policy-driven projects approved in some time, so CESA is encouraged to see the Draft 2021-2022 Transmission Plan begin to realize the transmission investments needed to better align procurement processes with transmission buildout and generator interconnections – issues that have been identified in the CAISO's Interconnection Process Enhancements (IPE) Initiative and are being acted upon with the development of the Draft 20-Year Transmission Outlook.

### **2. Comment on chapter 1 Overview of the Transmission Planning Process: \***

CESA has no comments at this time.

### **3. Comment on chapter 2 Reliability Assessment – Study Assumptions, Methodology and Results: \***

CESA has no comments at this time.

### **4. Comment on chapter 3 Policy-Driven Need Assessment: \***

CESA has no comments at this time.

### **5. Comment on chapter 4 Economic Planning Study: \***

CESA has no comments at this time.

### **6. Comment on chapter 5 Interregional Transmission Coordination: \***

CESA has no comments at this time.

#### **7. Comment on chapter 6 Other Studies and Results: \***

CESA supports the continued focus on studying and forecasting frequency response performance as part of the annual transmission planning cycle. For the 2021-2022 TPP, the CAISO shared the first study of how battery energy storage systems (BESS) as an inverter-based resource (IBR) in aiding frequency response and generally concluded that BESS can meet the CAISO's Frequency Response Obligation (FRO) in the study scenarios.<sup>1</sup> Since most BESS have been procured and is or will be installed with frequency response capabilities pursuant to Order No. 842 and represent the greatest share of incremental capacity additions, the CAISO found that BESS with the appropriate control parameters can increase its MW to provide inertia response.

CESA is generally supportive of the study and the conclusions, which assessed situations where the CAISO grid will rely more heavily on IBRs and less on operational conventional gas units (*i.e.*, spring off-peak case). However, as the CAISO explains, the study focused on BESS in charging mode when there is more headroom, whereas the next iteration of the study will need to look at IBRs in net discharging mode as well in assessing and forecasting frequency response performance.<sup>2</sup> CESA wholly agrees with continued study of frequency response performance in different situations, but we also request that, in the next planning cycle, the CAISO commit to considering non-BESS technologies (*e.g.*, compressed air and liquid air energy storage) that have the capability of providing inertia with less or minimal headroom, thereby potentially better optimizing utilization of system resources. The headroom for IBRs, for example, may be less if a system resource portfolio with different characteristics is available. Furthermore, building on this study, CESA also recommends that the CAISO launch a new stakeholder initiative that explores and develops market products to procure these frequency response capabilities from IBRs in a market-efficient way, given that there are opportunity costs associated with the provision of frequency response and the potentially differential performance of various BESS, IBRs, and other generation/storage resources in providing these services.

#### **8. Comment on chapter 7 Special Reliability Studies and Results: \***

CESA has no comment at this time.

#### **9. Comment on chapter 8 Transmission Project List: \***

CESA has no comment at this time.

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<sup>1</sup> Draft 2021-2022 Transmission Plan at 346 and 353.

<sup>2</sup> *Ibid* at 349-350.