

DOCKETED

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**Comments of the Large-scale Solar Association on Resource
Portfolios for the 20-Yr Tx Outlook**

Additional submitted attachment is included below.

Comments of the Large-scale Solar Association Regarding Resource Portfolio Assumptions for the Next CAISO 20-Year Transmission Outlook

I. Introduction

The Large-scale Solar Association (LSA) appreciates the California Energy Commission's (CEC's) efforts to support the 20-Year Transmission Outlook process. This long-term transmission planning process establishes a "north star" to guide the state's development of resources and transmission and gives stakeholders an opportunity to go beyond our immediate challenges to build much-needed new infrastructure in the coming decades. LSA provides two recommendations to improve the resource portfolio that will form the basis for the 20-Year Transmission Outlook: (1) resource and transmission planning should rely on the same geographic zones across state planning efforts; and (2) resource planning should continue to rely on high electrification load forecast scenarios.

II. Background on LSA

LSA is a non-partisan association of solar and battery storage developers that advocates appropriate policies to enable market penetration of utility-scale solar technologies in California and the Western United States. LSA's members are leaders in the utility-scale solar industry with deep experience in all disciplines necessary to site develop, engineer, construct, finance and operate utility scale solar and battery storage systems. LSA's member companies are principally responsible for developing most of the operational and planned solar and storage capacity in California today. In addition to a deep appreciation of what it takes to bring solar and storage capacity on-line, LSA members are also profoundly aware of the many challenges that must be addressed with urgency to achieve the state's aggressive goals for incremental solar capacity between now and 2045.

III. Discussion

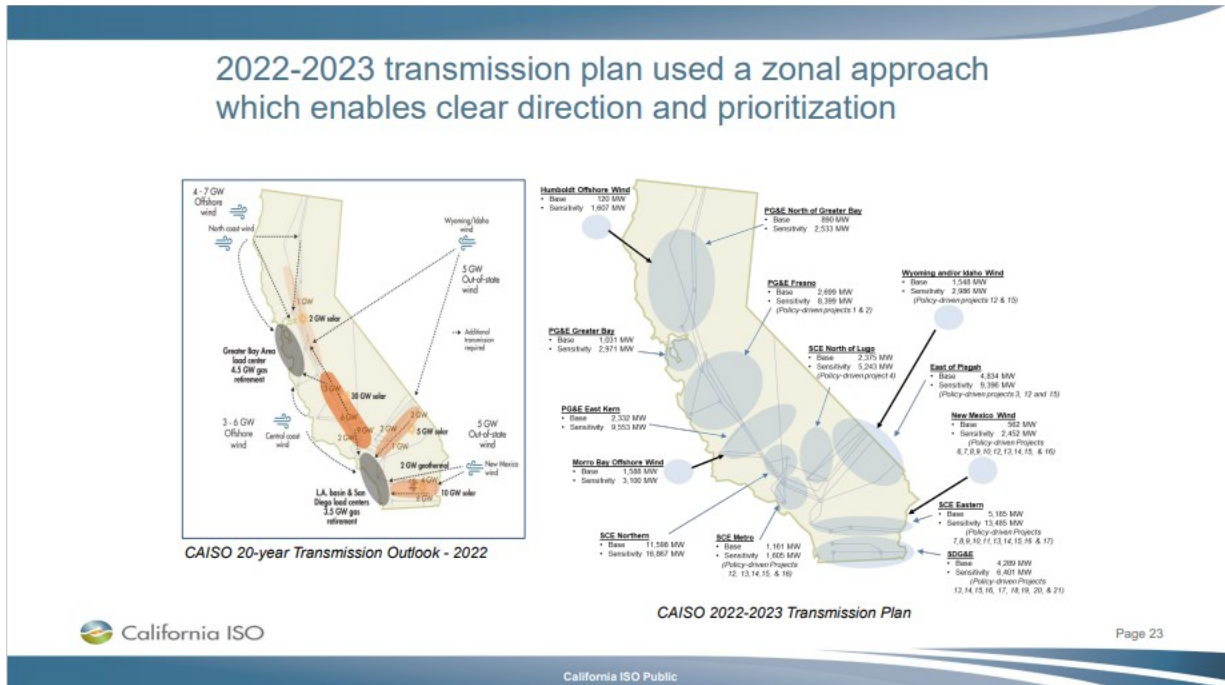
a. Resource and Transmission Planning Should Rely on the Same Geographic Zones

CAISO's 2022-23 transmission plan was the first to use a zonal approach, which divides the region into 14 zones, each with its own forecasted resource need. For example, CAISO has indicated that the PG&E Fresno area will require 8,399 MW¹ of new resources. LSA supports this approach and the transparency it provides, and we are encouraged to see that CAISO will continue to use it for the next 20-Year Transmission Outlook.

The California Public Utilities Commission (CPUC) is also using geographic zones in its busbar mapping process to develop the portfolios for the 20-Year-Transmission Outlook. However, the zones used by the CPUC do not match the boundaries or naming conventions used by CAISO (see slides below). For

¹ See "Resource Portfolio Assumptions for the Next CAISO 20-Year Transmission Outlook", slide 23 at [Joint Agency Staff Workshop on Resource Portfolio Assumptions for the Next CAISO 20-Year Transmission Outlook](#).

example, the CPUC maps solar and battery storage to a zone in southern California called “Riverside”² and CAISO refers to a larger zone in the same area as “SCE Eastern”.³ LSA encourages continued use of the zonal approach but urges the state regulatory entities to find alignment across the planning processes by using the same metrics and the same zones. If using different geographic zones is necessary at different points during the busbar mapping process to allow for more granularity, the information should ultimately be compiled into zones that are consistent between the resource and transmission planning results. This consistency will give stakeholders more confidence in the linkages between these two processes, which will have the intended result of driving market behavior aligned with the results.

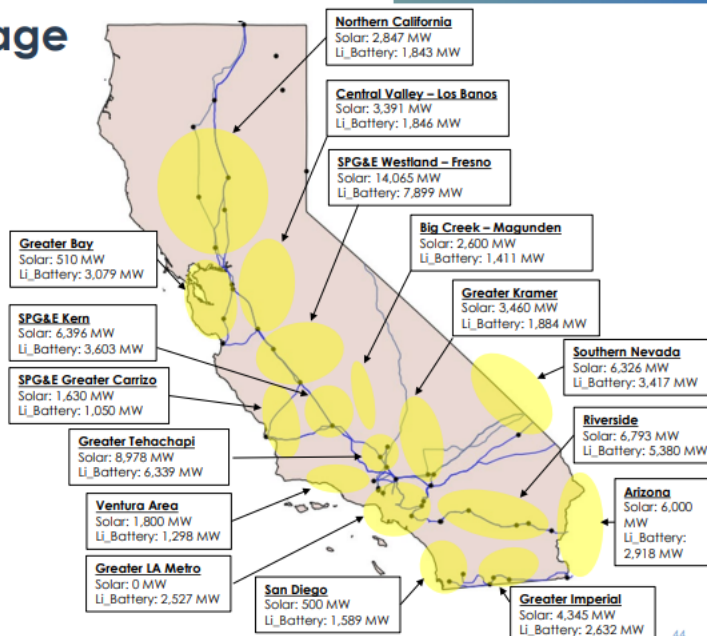


² Id. at slide 44.

³ Id. at slide 23.

Solar and Battery Storage

- Geographic breakdown of the:
 - 69,640 MW of utility-scale solar
 - 48,813 MW of Li-battery storage
- Mapped solar deliverability breakdown:
 - FCDS: 24,850 MW (~35.7%)
 - EODS: 44,790 MW (~64.3%)
- Mapped battery storage co-located vs stand-alone breakdown:
 - Stand-alone: 9,100 MW
 - Co-located: 39,710 MW



California Public Utilities Commission

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b. Resource Planning Should Continue to Rely on High Electrification Load Forecasts.

In recent planning efforts, both the CAISO and CPUC have recognized the importance of using a high electrification load forecast for transmission planning to get ahead of the anticipated demand for generation resources. For example, the original CAISO 20-Year Transmission Outlook relied on the Pathways high electrification load forecast, and the resource portfolio transmitted from the CPUC to CAISO for the 2023-24 TPP cycle relied on the CEC's Additional Transportation Electrification (ATE) load forecast. In the decision that adopted resource portfolios for the 2023-24 TPP, the CPUC explained its rationale:

“The general rationale for recommending this portfolio, among other things, is that transmission planning and construction typically has a longer lead time than generation and storage. Recent work, including the SB 100 (DeLeon, 2018) report and the 20-year transmission outlook by the CAISO, demonstrates the need for significantly more generation and storage to meet California's climate policy goals, beyond what is included in this portfolio. Therefore, if California is to meet its aggressive reliability and environmental goals, more transmission will need to be planned and built ahead of generation and storage development, and it is just a matter of exactly when, and not if, the transmission will be needed.”⁴

Despite this clear support for resource portfolios based on more aggressive electrification targets, the CEC proposes to rely on the 2021 IEPR Reference Case with updated transportation load instead of using the 2021 ATE case that will drive the 2023-24 TPP.⁵ The CEC notes that the proposed load forecast is

⁴ [D. 23-02-040](#) at pp. 48-49.

⁵ See “Resource Portfolio Assumptions for the Next CAISO 20-Year Transmission Outlook”, slide 31 at [Joint Agency Staff Workshop on Resource Portfolio Assumptions for the Next CAISO 20-Year Transmission Outlook](#).

similar to the Pathways high electrification forecast⁶, but it is unclear how this compares to the CEC's ATE forecast being used for the 2023-24 TPP. LSA encourages the CEC and CPUC to continue to use shared high electrification load forecasts in both resource and transmission planning processes to avoid "just in time" resource procurement and transmission upgrades.

IV. Conclusion

LSA appreciates the efforts of all three agencies (CEC, CPUC and CAISO) to continually improve the resource and transmission planning process and the opportunity to provide comments. We look forward to continued collaboration on these issues.

⁶ Id.