

*Comment Received From: GridLiance West
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GridLiance West Comments on SB100 Next Steps Workshop

Additional submitted attachment is included below.

June 22, 2021

RE: SB 100 Joint Agency Report Workshop on Next Steps

TO: California Energy Commission, Public Utilities Commission, and Air Resources Board

GridLiance West is a Participating Transmission Owner (PTO) in the California Independent System Operator (CAISO) that owns and operates approximately 165 miles of 230-kilovolt (kV) high-voltage transmission lines and related substation infrastructure located in rural southern Nevada. The southern Nevada region served by GridLiance West offers diverse and substantial renewable resource capability. At present, over 6,500 MW of solar/storage hybrid, wind, and geothermal resources have submitted requests into the CAISO interconnection process or received executed interconnection agreements to interconnect to the GridLiance West system.

GridLiance West appreciates the significant effort that the California Energy Commission (CEC), Public Utilities Commission (CPUC), and Air Resources Board (CARB) have put into the SB100 study and the opportunity to offer these comments in response to the discussion at the Next Steps workshop held on June 2, 2021 (June Workshop).

Summary of Comments

The SB 100 Report highlights the unprecedented effort confronting California. While the level of capacity additions necessary to achieve California's emissions reduction goals will fluctuate based on factors such as load flexibility or the diversity of generation technology, under all scenarios California will require decades of investment that significantly exceed historic levels. To enable this transformation and optimally develop resources that respect location, environmental and other social constraints, i.e., environmental justice considerations, transmission infrastructure must be thoughtfully and proactively planned. GridLiance West, therefore, encourages the CPUC, CEC, and Air Resources Board to work with the CAISO to leverage insights from the CAISO's 20-year transmission planning process to ensure no-regrets upgrades are approved without delay if they also meet the thresholds for reliability, policy, or economic upgrades in accordance with the

CAISO's 2021-2022 regular 10-year transmission plan or generation interconnection processes. GridLiance West discusses this further below.

GridLiance West Agrees That Transmission System Buildout is Critical to SB100

The ability to construct the transmission needed to support the magnitude of renewable resources to realize SB 100's goals was a main point of discussion at the workshop. GridLiance West appreciates the CAISO's recognition that this is a critical point in time for transmission development. Mr. Millar recognized the industry is at a critical inflection point with the need to considerably accelerate transmission development to match the pace of generation and integration resource requirements. He also acknowledged that the long lead time of transmission creates pressure to move forward decisively in the very near future to achieve the State's mid- and longer-term objectives. Further, the CAISO now sees value in broader diversity (beyond solar with storage) of resource to meet climate and reliability needs, and that many of the needed resources themselves have long lead times. Many other parties strongly echoed similar positions.¹

The CAISO's 20-year Transmission Study can inform its Regular Transmission Planning Process

The CAISO indicated that its new 20-year study will address this in conjunction with its regular TPP process. GridLiance West is pleased that the CAISO is doing this study and believes the 20-year study can inform the CAISO's pending TPP. The CAISO indicated that the 20-year study will

¹ Daniel Hopper from SCE identified the need for new transmission to come online to support the clean energy resources. John White from CEERT spoke of the transmission and infrastructure needs and noted the backlog of transmission needed to deliver the abundant renewable resources. Nancy Rader from CalWEA discussed the needed major transmission upgrades that have prevented resources from receiving deliverability status and providing capacity benefits. Further, Dan Jacobson from Environment California also mentioned important transmission that requires better planning. Similarly, The Nature Conservancy's Erica Brand mentioned the need for investment in transmission and that now is the time for planning infrastructure to achieve the State's multiple goals, without which transmission may create a significant barrier [to meeting climate goals]. Similarly, Danielle Mills from ACP-CA discussed the need to think ahead on transmission expansion and the import of aligning transmission and procurement.

be less structured than its regular TPP and that the CAISO will not be recommending projects from it.²

While GridLiance West understands the CAISO's motivation for not planning to have the study produce specific projects nominated for approval, GridLiance West strongly encourages a process that has the CAISO consider outcomes of the 20-year study in its choice of whether to nominate an upgrade to the transmission needs identified in the 10-year TPP. GridLiance West makes this recommendation after several years of experience in the TPP cycles wherein the CAISO has identified transmission bottlenecks but, rather than choosing to pursue upgrades, has settled for operational workarounds – workarounds that often result in curtaining renewable generation. Such workarounds may have been sound decisions under a business-as-usual approach but perpetuating such an approach is unlikely to support the needed progress towards SB 100 goals. The predominance of the evidence and parties' views presented at the June Workshop similarly support the need for different infrastructure decisions. Thus, if the CAISO's 20-year study finds that such a bottleneck will be required to meet SB100 goals it should use this information to choose an upgrade path over deferring in its 2021-2022 TPP. Through using the 20-year results to emphasize upgrades working in conjunction with the 10-year TPP the 20-year study can thereby lead to tangible results to effect now no-regrets infrastructure enhancements approved in this current TPP.

Similarly, GridLiance West urges the CAISO to include the economic study request GridLiance West submitted in the 2021-2022 TPP to assess the benefits of enhanced transmission to interconnect additional geothermal resources to the CAISO grid. This study request, while perhaps not indicated by the current 2021-2022 TPP study given the lag between the CPUC's early 2021 portfolios and the CPUC's mid-term procurement recommendations, is relevant under the mid-term procurement needs and certainly under the SB100 outcomes, i.e., generic zero-carbon firm resource scenario. This request and others like it before the CAISO should be given

² Workshop morning slide deck slides 39 and 40.
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additional consideration considering this pressing need for infrastructure and in light of the CAISO's 20-year planned study.

GridLiance West input on enhancing the efficacy of the CAISO's study of the SB100 Cases

The CAISO plans to use the SB100 results as its underlying portfolio in its 20-year study. GridLiance West offers the following more detailed input on how the CAISO can do so to best support meaningful next steps in reaching the SB100 goals.

- GridLiance West urges the use of a more aggressive/high flexibility scenario rather than the Core or Study scenario. GridLiance West also commented on this in the CAISO's process.³ In short, while the SB100 Core and Study scenarios were well defined and rather appropriately chosen for the SB100 study, the scenarios this time are more than 15 months old (originally developed in early 2020), and they do not reflect the reliability needs recently articulated by the CPUC in its mid-term reliability procurement process, nor do they reflect the needs that the CAISO articulated in its response to the CPUC in that same process. These scenarios pre-date the August 2020 heatwave events, the lessons learned about the resources needed for extended severe weather, and the increasingly near-term nature of the Diablo Canyon retirement. GridLiance West recommends the CAISO use instead, for its 20-year study, the SB100 case seeking high flexibility and high electrification ("CEC_B_SB100_HighElec_HighFlex_20210204").
- Irrespective of which SB100 study is used, for any portfolio that has not yet been mapped to busbars, GridLiance West recommends that CAISO apply the methodology and mapping choices applied in the IRP to the portfolio for the 20-year study. Additionally, GridLiance West recommends that the CAISO consider the the generation resources that submitted requests in Cluster 14 to inform the mapping process.

³ <https://stakeholdercenter.caiso.com/Comments/AllComments/708075b1-0779-46c4-bc47-54b206f7b6d0#org-a91ae232-94ba-4535-968c-b9f1b809c0dd>
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- The SB100 Agencies need to revisit RESOLVE assumptions for any subsequent run of RESOLVE in light of the higher reliability needs. For example, in GridLiance West's footprint, RESOLVE currently allows only 320 MWs of geothermal development despite a geothermal potential well in excess of that number. This 320 MW limit is less than that submitted for interconnection to the GridLiance West area in the CAISO's cluster 14.
- The results of the CAISO's 20-year study should inform the next IRP and any subsequent SB100 analysis activities. Upgrades that can increase transmission capabilities should be added for the next RESOLVE runs in the IRP and SB100 work to ensure that planning is rationally progressing to SB100 goals.

GridLiance West appreciates the ability to submit these comments and would welcome the ability to discuss these issues with the Agency or otherwise participate in the SB100 study.

Sincerely,

A handwritten signature in blue ink, appearing to read "M Landgraf".

Michael Landgraf
President, GridLiance West