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Additional submitted attachment is included below.



August 23, 2021

California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Comments of the Large-scale Solar Association on Docket 21-SIT-01, SB 100 Implementation Planning for SB 100 Resource Build. Resource Mapping

The Large-scale Solar Association (LSA) is pleased to provide comments on the recent Resource Mapping workshop and presentation of August 12, 2021. LSA is a non-partisan trade association of developers and owners of utility-scale solar projects, founded in 2008. Member companies in LSA represent leaders in the industry whose mission is to provide low-cost, zero-emitting power to support state and federal climate and clean energy targets.

LSA appreciates the urgency behind the Commission's efforts to provide direction to the CAISO regarding its 20-year Transmission Planning Process. We want to state at the outset however, that given the importance of starting the process with the proper and accurate metrics and methodology, we believe more time, consideration and stakeholder engagement is required before the Commission submits Resource Maps to the CAISO for consideration. Our input and recommendations regarding the August 12 workshop and presentation are outlined below.

Data Inputs and listed Planning Activities

It was not stated during the August 12 workshop discussion, nor is it described in the posted presentation how and which portion of the noted Data Sets and Planning Activities are being used to assemble recommendations for the CAISO. Further, it is unclear whether the data sets being used are fully updated or have, themselves, been subject to a public review process. To provide informed input, stakeholders need more insight into these elements.

Further, the Planning Activities listed are based mostly on desktop modeling exercises conducted 8-10+ years ago and should be updated. In addition, the results of both the Desert Renewable Energy Conservation Plan (DRECP) and the San Joaquin Least Conflict Solar effort have not only been demonstrated to have multiple deficiencies but have been outdated by ongoing events when it comes to renewable planning and siting. Use of both planning efforts' results should be conditioned on input from the renewables industry and other available data and based on lessons learned since the processes were finalized.

Methodology

The methodology used to assemble the maps based on the data sets and planning activities is unclear. Slides 13 and 14 state that the process will use the listed data sets to set exclusion areas, to identify areas for renewables development, to calculate acreage and to establish numeric values for environmental implications, and to calculate available acreage for renewable energy resource by transmission zones, to name a few. The presenter in the August 12 workshop stated that no exclusion areas would be imposed. However, the slide indicates the opposite. Given the

planning missteps made in the past, which were both over- and under-inclusive of low conflict areas, we urge a very high-level approach to exclusion, where only truly known exclusion areas are excluded from further consideration. In addition, absent some transparency regarding the methods or criteria used to establish the listed factors, it is difficult for parties to gauge the effectiveness of the methods and to provide informed input. An exercise of this magnitude and importance deserves more transparency and consideration.

Modeled SB 100 Potential Solar Buildout – Regional Look

The following feedback on Slides 19 and 20 provides examples of why LSA believes it is important to revisit the process and the inputs to provide for more thorough engagement.

- The “Westlands Tx zone” on Slide 19 identifies only 9,961 acres for solar development, while Slide 20 acknowledges that there are more than 1.2M acres of solar resource most suitable for solar. The San Joaquin Valley planning effort first identified seven million acres for solar development, which was then based on informal stakeholder feedback but with little desktop modeling and no ‘boots on the ground’ assessments.
 - o The SJV assessment effort should be revisited and updated with more recent data and in consideration of water availability and other factors. With that in hand, it would be appropriate to discuss and identify acreage availability for renewable energy that region. As it stands, there is no discernible basis for identifying a mere 10,000 acres in the region as a planning input to the SB 100 process. Moreover, to the extent that Williamson Act contracts otherwise limits available acreage, this limiting factor must be considered in determining land available in the State for an SB 100 build-out.
- The Sacramento River Tx Zone has no boundary, scope or delineation. It is unclear what metrics were used to identify suitable or unsuitable areas in that region. This designation is reminiscent of some of the Federal PEIS Solar Energy Zones, where no company came to bid. As of this date, we are unaware of industry interest in this area.
- The Carrizo Tx Zone identifies 67,207 acres for development, however the history of project development in the Carrizo area indicates the presence of significant biological conflicts and strenuous conservation group opposition. Indeed, when the companies that reached settlement with a large group of NGOs to build the two projects that exist there now, at least anecdotally, the understanding was that no further development could or should occur there.
- The DRECP, an effort specifically designed to identify areas for renewable development and listed in the presentation as a referenced Planning Activity, is not recognized on the Potential Buildout slide at all. To be clear, there are profound renewable energy siting deficiencies in the DRECP that should be revisited to make it truly workable for renewable development, but failure to include the desert region almost entirely is unfounded and the rationale for this unclear.
 - o Further, the CAISO queue has a minimum of 1356 MW of executed GIAs for this area, and it is obvious that more transmission capacity is needed.
 - o New projects are proposed in this area on both public and private lands. In addition, BLM may open other lands to development to support federal goals for renewable energy on public lands.
- Given the 84GW of expected solar build based on the No Combustion scenario outlined in the presentation, it is unclear why only partial acreage is accounted for in Slide 19. In

general, the metrics illustrated and outlined on the map have no clear basis. Further, there is no inclusion of out of state imports expectation, making it virtually impossible for parties to understand the process, the acreage and MW identified and thus to provide informed input.

- Finally, it deserves to be clarified how these or any associated maps will be used in the 20-year transmission process and in other SB 100 planning efforts.

Recommendations

Transmission planning in California has long been a complicated and lengthy process, with the real-time buildout timelines reflecting even more complexities and timelines. It is for this reason, LSA is pleased with the recent decision to assemble a 20-year transmission look ahead to better facilitate next steps. However, this Resource Mapping is fundamental to the overall planning process and merits more thought than the 19-day process provided for here. Along those lines, we recommend the following:

Stakeholder engagement and Timing

Because land use considerations are critical to the transmission planning process, we ask the Commission to delay submitting Resource Mapping and to allow more time for stakeholder engagement and data refinement. Specifically, the process should host at least one additional workshop that includes representatives from the renewables industry, conservation groups and the agriculture sector, and should provide sufficient time for parties to engage and consider the data. Given the role of the Department of Conservation (DoC) in agriculture lands planning, the DoC should also be included in this process.

Data Improvements

The California landscape is in flux, and the data used in the Resource Mapping should better represent the current state of play for land quality and use, particularly for agricultural areas.

- The agriculture data layers should include updated information from the Sustainable Groundwater Management Act (SGMA), including projections about where water scarcity will result in fallowed acreage. Impaired soil acreage should also be updated and included, as should Williamson Act cancellation areas both existing and projected.
- The DRECP and Southern California Desert should be included in the Resource Maps and as a Region in the Potential Solar Buildout outlook. This inclusion should encompass not only the DRECP Development Focus Areas, but also lands classified as General Purpose Areas and Variance Lands.

Methodology

The specific methodology and criteria used to identify renewable resource areas, acreage, and Megawatts should be provided to stakeholders, and be subject to a public vetting and refinement process.

Commercial Interest Consideration

The Commission conducts the annual Busbar mapping process for the state's Transmission Planning Process. The Resource Mapping exercise should be informed by and inclusive of commercial interest as demonstrated in the CAISO Interconnection queue, consistent with the

recent revisions to the Busbar mapping process as outlined in the CPUC August 17 Ruling in the Integrated Resource Planning Process.¹

Our recommendation to utilize the queue data to achieve greater consistency with commercial interest is based on the fact that it takes significant time and resources to consolidate parcels with low biological and other conflicts and relatively near existing infrastructure. As such, the CAISO queue is often a good indicator of where areas have been found to be suitable for renewable energy development based on work already conducted. As a demonstration, the chart below indicates queue interest compared to the January CPUC TPP portfolios and shows where more transmission planning focus would be beneficial.

TPP Portfolio Substation Assignments and CAISO Queue Data

County	Tx. Delivery Zone	Substation	Hybrid Solar and Storage with GIAs	
Riverside		Colorado River 230kV	1356	
Kern	Tehachapi	Windhub 230 kV	1250	
Kern	Tehachapi	Whirlwind 230 kV	1123	
Riverside		Red Bluff 230 kV	744	
San Bernardino		Kramer	534	
Arizona	SCADSNV Z4 RiversideAndPalmSprings	Delaney-Colorado 500kV	426	
Fresno		Tranquility 230 kV	400	
San Bernardino	GK Z4 Pisgah	Calcite	310	
Kings		Mustang 230 kV	300	
Tulare		Vestal 230 kV	300	
Substation	County	TPP Allocated Firm Transmission (MWs)	TPP Allocated Non-Firm Transmission (MW)	Executed Interconnection Agreements (MWs)
Colorado River	Riverside	0	0	1356
Devers	Riverside	0	0	400
Calcite	San Bernardino	126	140	310
Kramer	San Bernardino	0	0	534
Red Bluff	Riverside	0	0	744
El Dorado	Nevada	1211	165	279
Delaney	Arizona	426	0	426
Hassayampa	Arizona	269	871	269

Import Capabilities and Projections

California’s transmission planning process generally includes consideration of out of state imports. However, the Resource Mapping process does not include any discussion of how imports would be or have already been factored into the planning exercise. To achieve a more a holistic view of the overall effort and planning horizon, import projections should be included in the process, provided to stakeholders, and subject to stakeholder review and input.

¹ Rulemaking 20-05-003, Administrative Law Judge’s Ruling Seeking Comments on Proposed Preferred System Plan, Attachment C, Methodology for Resource-to-Busbar Mapping & Assumptions for The Annual TPP

Conclusion

While we applaud the state for undertaking a 20-year transmission look ahead process, it's critical that the starting point for the effort be an accurate one. Absent use of correct and updated information, the process could misguide stakeholders and transmission planners, alike, leading to confusion and delay in subsequent planning stages. We understand and amplify the urgency to move quickly considering the significant infrastructure needed to meet our climate goals. However, a few additional months to get the Resource Mapping property aligned with accurate metrics and updated to align with real-time realities on the ground would be well worth the time and effort.

LSA is standing by to assist in any way. Thank you for considering our views.

Sincerely,

A handwritten signature in black ink that reads "Shannon Eddy". The signature is written in a cursive style with a large, looping 'y' at the end.

Shannon Eddy
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