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Submitted by email to [regionaltransmission@caiso.com](mailto:regionaltransmission@caiso.com)

## **RE: Comments of the Large-scale Solar Association to the Revised Conceptual Statewide Transmission Plan 2010/2011**

### **I. Introduction**

The Large-scale Solar Association ("LSA") represents twelve of the nation's largest providers of utility-scale solar generating resources. Collectively, LSA's members have contracted to provide over 7 GW of clean, sustainable solar power to California's load-serving entities. Its members develop, own and operate various utility-scale solar technologies, including photovoltaic and solar thermal system designs. LSA's member companies are renewable energy industry leaders, advancing solar generation technologies and advocating competitive markets. As such, LSA has a strong interest in ensuring that the California Independent System Operator Corporation's ("CAISO") transmission planning process results in the timely construction of the transmission facilities needed for renewable developers to meet their contractual commitments to be fully deliverable and get renewable power onto the grid.

LSA appreciates this opportunity to comment on the CAISO's Revised Conceptual Statewide Transmission Plan for 2010/2011 ("Conceptual Plan"). LSA also appreciates the strides that the CAISO and the transmission owners in California have made in transmission planning in order to achieve the state's renewable energy goals, including the reforms to the interconnection process, the revised transmission planning process ("RTPP"), the planning efforts through the California Transmission Planning Group ("CTPG"), and Southern California Edison Company's ("SCE") willingness to upfront fund key transmission facilities necessary to interconnect renewable generation. LSA is confident that the parties will continue to make progress on these key issues. However, LSA is concerned about the complete lack of detail provided in the Conceptual Plan, and its heavy reliance on references to other documents, such as CTPG reports, whose decision criteria are also not necessarily well explained or supported, and which makes it difficult for LSA to accurately analyze the CAISO's conclusions or understand the practical effects of the proposal.

LSA's comments focus on two overarching concerns. First, the Conceptual Plan does not provide *any* detail about the timing of the planned transmission upgrades, and LSA strongly recommends that the draft Comprehensive Transmission Plan (henceforth, draft comprehensive plan) provide specific transmission solutions and schedules for ensuring that sufficient renewable energy is fully deliverable well before 2016 to ensure the continued commercial viability of the highest ranked solar projects. LSA cannot support the draft comprehensive plan without this modification. Second, LSA notes that the Conceptual Plan does not support the CAISO's conclusion that the planned transmission will be sufficient to meet the goal of 33% renewables by 2020 and does not provide any criteria-based support to determine whether, if renewable development was to follow that path, the result would be a least-regrets way of reaching the renewable goals. Each of these concerns is discussed in more detail below. In

addition, LSA's comments have been limited to the CAISO's Balancing Authority Area ("BAA") elements of the conceptual plan as specifically requested by the CAISO.

## II. Comments

### A. The Conceptual Plan Lacks Sufficient Detail Regarding the Timing of the Planned Projects and Does Not Address Pre-2016 Transmission Solutions.

The Conceptual Plan simply does not include sufficient detail about the timing and scope of the planned transmission upgrades. In fact, the Conceptual Plan does not include any new information, aside from what has already been made publicly available in other forums, and it is a scant ten pages.<sup>1</sup> LSA understands that the Conceptual Plan is required by the Federal Energy Regulatory Commission as an input into the comprehensive plan, but since there will be a relatively short time for comment to the draft comprehensive plan, LSA wants to ensure that the CAISO provides much more detail, as set forth below, in this next draft plan to enable meaningful discussion.<sup>2</sup> The draft comprehensive plan *must* address these important questions of timing, permitting, and schedules for each of the planned transmission upgrades between now and 2020, as well as any potential operating restrictions during construction of these upgrades, which may require existing transmission facilities to be taken out of service.

It is generally understood that contractual commitments by renewable developers, as well as the expiration of the federal investment tax credit ("ITC"), require that transmission be constructed quickly so that renewable generators are on-line *and fully deliverable* before 2016. The Conceptual Plan does not identify any in-service dates for the transmission elements, nor does it propose any potential temporary transmission solutions to get additional renewable power deliverable prior to 2016, as discussed in the December 2 stakeholder meeting on this topic.<sup>3</sup> The draft comprehensive plan needs to include a transmission schedule solution that will allow a large bulk of renewable resources to come on-line, and to be deliverable, prior to 2016. LSA understands that the CAISO has been tasked to create a plan to achieve a goal of 33% renewables by 2020; however, in order for that ultimate goal to be reached, the CAISO must take into account commercial realities –including, but not limited to, terms of California Public Utilities Commission ("CPUC")-approved power purchase agreements ("PPAs"), the required in-service dates of transmission facilities to accommodate those projects' commercial operation dates (i.e., in some cases 2013-2014), and the expiration of the ITC in 2016. If renewable developers with otherwise viable projects do not have a clear and timely path to become fully deliverable, all the transmission "planning" in the world for 2020 will not result in sufficient renewable generation coming on line to meet the state's policy goals.

For example, the planned West of Devers upgrade, among others, is required to in order to interconnect, and ensure deliverability of, numerous solar projects currently in the CAISO's interconnection queue. The Conceptual Plan does not identify when those upgrades will be finalized, but SCE has publicly stated that it does not expect that the upgrades will be complete

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<sup>1</sup> In contrast, the CTPG Draft Final Plan published on February 2, 2011 is over 80 pages and provides detailed assumptions and study results.

<sup>2</sup> LSA is also somewhat concerned that the CAISO has yet to publish a timetable for completing the 2010/2011 planning process. The CAISO should publish one promptly so that parties have sufficient time to plan for their participation in this process, particularly because the Conceptual Plan is so light on details and there will be a relatively short time period to digest and comment on the comprehensive plan.

<sup>3</sup> See CAISO Comprehensive Transmission Planning to Meet 33% RPS – Preliminary Study Results; Slide Presentation from December 2, 2010 Stakeholder Meeting.

until at least 2017. If no interim solution is implemented to create a clear path for those projects to be fully deliverable by 2016 at the latest, and preferably by 2014-15, then it is likely that the renewable generators relying on those upgrades will have difficulty obtaining financing because the projects may not be eligible for the ITC. Additionally, the CPUC has approved numerous PPAs that rely on a transmission solution for that corridor, and others, that require that transmission must be available up to one or two years prior to actual delivery dates.

As the CAISO is aware, lack of transmission is a key limiting factor to solar generators seeking to obtain financing of their projects. Thus, the CAISO and the Participating Transmission Owners (“PTOs”), to the full extent possible, must accelerate the planned transmission projects, and/or provide interim transmission solutions.<sup>4</sup> The Conceptual Plan does not address these issues at all, and the CAISO must address this “gap” in the comprehensive plan. In sum, the draft comprehensive plan must include the proposed timing and schedules on all of the proposed transmission upgrades so that developers and investors can plan accordingly. LSA cannot support the draft comprehensive plan without these modifications.

### **B. The Conceptual Plan Lacks Any Detail Concerning the Assumptions Used in Concluding that the Plan is Sufficient for Achieving Renewable Goals.**

While LSA appreciates the large amount of analysis expended this year in the transmission arena, it remains disappointed that the CAISO did not appropriately compare its own conclusions with reference to prior analyses. In the Conceptual Plan, the CAISO asserts that, “The [CA]ISO’s own analyses indicate that this [CA]ISO conceptual statewide plan includes enough new transmission additions, both within the [CA]ISO footprint and in the footprints of certain other California BAAs as discussed below, to accommodate the addition of 53.7 TWh of renewable energy to serve California load by the year 2020.”<sup>5</sup> The CAISO has not provided any support for that statement in the Conceptual Plan, and has not provided stakeholders with the assumptions that it used to come to this unsupported conclusion. In addition, prior results appear to be contradictory or at least difficult to reconcile with the CAISO conclusions. It appears that the CTPG Phase 4 study arrived at a different result in concluding that “the initial set of associated ‘high potential’ transmission elements could potentially provide transmission capacity to avoid reliability standard violations when renewable energy is being delivered to meet a California RPS of approximately 22% to 24% in year 2020.”<sup>6</sup> Moreover, the CAISO scenario estimates of renewable capacity (MW) at the CREZs identified are different from every one of the CTPG scenarios. While LSA understands that the CAISO has done its own analyses that are independent from the CTPG’s analysis, the CAISO must explain any deviation from those study results. The CAISO simply has not provided sufficient information for stakeholders to properly comment on the substance of the results.

It is also unclear what assumptions or supporting data that the CAISO has used in reaching its conclusion that the planned transmission facilities, many of which have already been approved, would be adequate “for now” to accomplish the 33% RPS goal. However, the CAISO conceptual plan concluded that “[t]hese facilities, combined with the projects for other BAAs set

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<sup>4</sup> LSA is well aware that other steps must be taken to accelerate transmission, and LSA encourages the CAISO and the PTOs to work with the CPUC and other permitting agencies to take whatever steps necessary to accelerate the permitting and construction of transmission. Additionally, interconnection reform must continue to ensure that generators with viable projects can take advantage of new transmission capacity that is constructed.

<sup>5</sup> Conceptual Plan at 2.

<sup>6</sup> CTPG Draft Final Statewide Plan at 9.

out in Table 1, have the combined potential to accommodate more than 17,600 MW of new resource capacity and deliver more than 57,000 GWh of renewable energy per year.” Given that on Page 2 of the Conceptual Plan, the CAISO states, “the amount of renewable energy that needs to be added to California’s annual supply mix in order to meet the 33 percent renewable energy goal is approximately 53.7 TWh”, one must conclude that the CAISO believes that, even with a less than ten percent margin between the projected BAA and the CAISO’s total GWh, its Conceptual Plan would be enough to support the 33% RPS goal. To understand the difference in these conclusions, stakeholders will need to understand the underlying differences in assumptions, data and methodology by the various planning entities.

Questions related to issues of assumptions, dispatch patterns, and methodology were raised during the stakeholder meeting/conference calls on December 2, 2010 and December 16, 2010. The response from the CAISO at the time was that the information would be available in the pending comprehensive report to be released. Since this information is not available in this Conceptual Plan, it is difficult to provide meaningful comments. For example, the CAISO did not disclose the amount of in-state versus out-of-state fossil generation that would be displaced by the renewable resources in its study. This is significant because if too much out-of-state generation is backed down, local reliability problems for those out-of-state entities could result. Those out-of-state entities may be relying on this generation to supply its load, resulting in unrealistic amounts of imports into California. It could also distort the loadings, and consequently the need for transmission infrastructure within California, resulting in an insufficient amount of transfer capability to support the 33% RPS goal and curtailment of renewables in real time. The assumptions used by the CAISO may be justified and supportable; however, without the needed information, it is not possible for stakeholders to reach a conclusion one way or the other.

Finally, the lack of supporting information and data renders it unclear what decision criteria the CAISO’s process has taken into account in reaching its conclusions, including ensuring that the planned transmission will support a diversity of resources to meet the CAISO grid’s integration needs without excessive integration costs. For example, the impact of renewable integration is one such topic that needs further analysis, by the CAISO’s own admission, and those issues were not addressed by CTPG. In fact, CTPG specifically stated that, “These analyses [integration and RA issues] are beyond the scope of the CTPG study objectives and are being left to the entities and project sponsors . . .”<sup>7</sup>. These issues could have major impacts on the identification of least regrets renewable resources and other generation and non-generation resources by 2020 and beyond.

LSA realizes that the perfect cannot be enemy of the good given the continuing regulatory and market uncertainty in renewable resource development. However, LSA recommends that the CAISO simply clarify that its conclusions in the draft comprehensive plan are not presented as necessarily sufficient to meet a least-regrets 33% RPS in 2020, but rather as the starting point for such a least-regrets plan.

### **C. Conclusion**

As detailed above: (1) the draft comprehensive plan must include proposed in-service dates for all of the proposed transmission elements, and, if required, must propose an interim solution to ensure sufficient transmission can come on-line and be fully deliverable well before 2016; and (2) the draft comprehensive plan must provide the CAISO’s assumptions, methodology, and any deviations from the CTPG in sufficient detail to allow stakeholders to properly analyze the data. Under the current plan, stakeholders, including LSA, are unable to determine how the CAISO’s

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<sup>7</sup> CTPG Draft Final Statewide Plan at 17.

“conceptual vision” was derived. All stakeholders require access to the inputs the CAISO used in order to be able to submit well-founded substantive comments on the CAISO’s conclusion that the plan is sufficient to meet the renewable goals.

Thank you,

/s/Kristin Burford

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