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CalWEA Comments on RETI 2.0

Additional submitted attachment is included below.

September 24, 2015

California Energy Commission
Docket Unit, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

RE: **Docket No. 15-RETI-02** -- Comments of the California Wind Energy Association following the September 10, 2015, Joint Agency Workshop on California Renewable Energy Transmission Initiative 2.0

1. INTRODUCTION & SUMMARY

The California Wind Energy Association (CalWEA) was pleased to be able to provide public comments at the September 10, 2015, Joint Agency Workshop introducing the Renewable Energy Transmission Initiative 2.0 ("RETI 2.0"). These written comments elaborate on those remarks.

CalWEA was extensively involved in the initial RETI effort ("RETI 1.0"), which began as "a statewide initiative to help identify the transmission projects needed to accommodate California's renewable energy goals, support future energy policy, and facilitate transmission corridor designation and transmission and generation siting and permitting."[1] The RETI 1.0 work product – a conceptual statewide transmission plan – was produced along with three very important lessons that the state has taken to heart in agency processes that have since been significantly revised. As RETI 2.0 is scoped, it is important that we likewise heed these lessons. In summary:

- First, the RETI 1.0 process ultimately recognized the importance of "least-regrets" transmission planning, a methodology that identifies backbone transmission upgrades that would be needed for any of a range of plausible renewable energy future. This type of planning does not prejudge the market or land-use permitting processes, and minimizes the possibility of stranded transmission assets. CPUC and CAISO processes now reflect the importance of this type of least-regrets planning.

- Second, it is not possible, with any credibility, to screen specific resource areas on environmental grounds, nor is it necessary to do so for a least-regrets transmission plan, which

[1] See http://www.cpuc.ca.gov/PUC/energy/Renewables/transmission.htm.

will be robust under most any pattern of development. The environmental screening aspect of RETI 1.0 turned out to be a largely arbitrary exercise outside of appropriate jurisdictional channels. However, the RETI 1.0 effort did lead to federal and county land use planning efforts in the desert and elsewhere that, when completed, can be fed into state planning processes as inputs.

- Third, the ability to act on a transmission plan requires that the planning process be rooted in agency processes that can legally support the action. Because the RETI 1.0 conceptual transmission plan was not grounded in the appropriate agency processes, it was never acted upon and never led to any decision to build transmission upgrades. This procedural problem has been addressed in the better-aligned processes that are now underway at the CPUC and the CAISO which, we believe, will lead to decisions to invest in the backbone transmission upgrades that will be critically important in preventing potentially significant transmission-related curtailments as we approach and surpass 33% renewables.

A great deal of progress has been made as a result of what was learned in the RETI 1.0 process, and thoughtful and practical processes to develop policy-based transmission upgrades on least-regrets planning principles have been put into place in its wake. RETI 2.0 should recognize this progress and seek to complement the efforts that are already well underway. RETI 2.0 should be scoped to ensure that it does not distract or take away resources from these thoughtful processes, or create a competing forum for debate. Not only would this create an enormous resource burden on stakeholders, but it could actually delay progress in building the transmission upgrades and other system resources that we will soon need to avoid significant curtailment of renewable energy and efficiently integrate higher levels of renewable energy. Instead, RETI 2.0 should focus on any gaps that cannot be more effectively addressed through existing procedural channels, such as serving as a forum to discuss California's role and objectives in Western transmission planning processes, such as the FERC Order 1000 process.

We discuss these issues in more detail, below.

2. THE IMPORTANCE OF LEAST-REGRETS SYSTEM & TRANSMISSION PLANNING

As noted above, least-regrets transmission planning is based on a methodology that identifies the backbone transmission upgrades that would be needed for any reasonably possible renewable energy future. This type of planning does not prejudge the market or land-use permitting processes, and minimizes the possibility of stranded transmission assets. The same type of planning can support robust decisions on the incremental system, local, and flexible capacity resources that may be needed to ensure system reliability at the least possible cost to ratepayers. The coordinated CPUC and CAISO processes now reflect this type of planning.

a. The CPUC's Processes Are Now Aimed at Least-Regrets System and Transmission Planning

As the CPUC's Molly Sterkel and Brian Turner described at the workshop, the CPUC has made considerable progress over the past few years in evolving its planning processes to support efficient

decision-making regarding the system and transmission resource investments that may be needed to support the state's transition to renewable energy resources.

In particular, the Commission and the CAISO are "striv[ing] to use a single set of assumptions to perform their analyses of the need for generation and transmission resources, respectively." [2] To inform the assumptions regarding future renewable energy additions, the capabilities of Energy Division's "RPS Calculator" have been substantially improved, far exceeding what was available prior to and in the RETI 1.0 process. Energy Division is currently conducting a stakeholder process to develop, using the RPS Calculator, a range of "reasonably possible" renewable energy futures that will serve as inputs into the CPUC's Long-Term Procurement Planning Proceeding (LTPP), the CAISO's Transmission Planning Process (TPP), and related special studies.[3]

This process will facilitate the CAISO's TPP by providing a number of reasonable renewable energy futures around which to identify least-regrets transmission upgrades, as discussed further below. The alignment between the CPUC's and the CAISO's processes will facilitate CAISO's decision-making on policy-based transmission upgrades and the CPUC's determination of need in its transmission siting and environmental permitting process for any transmission investments that may be identified through the CAISO's TPP process.

b. CAISO's Policy-Based Transmission Planning Authority

The CAISO carried forward from RETI 1.0 the concept of least regrets planning as part of the "policy-based" transmission planning authority that was granted by FERC in 2010. The CAISO secured from the Federal Energy Regulatory Commission (FERC) the authority to plan for these transmission upgrades, which by the nature of the methodologies used to identify them, are unlikely to result in unused, "stranded" transmission assets, regardless of the specific patterns of renewable energy development that unfold.

To plan these upgrades, the CAISO pledged to take "a more comprehensive, holistic approach to transmission planning and approval, rather than the [then-]current project-by-project approach," in order to minimize the risk of stranded transmission investment.[4] FERC accepted these revisions to the CAISO's tariff on the premise that the CAISO will use a "series of engineering sensitivity studies . . . to identify a common set of transmission elements that are needed under the renewable scenarios most

[2] See, e.g., CPUC R.15-02-020, Administrative Law Judge's Ruling Seeking Post-Workshop Comments, April 13, 2015.

[3] CPUC R.15-02-020, Administrative Law Judge's Ruling (1) Issuing An Energy Division Staff Paper On Incorporating Land Use And Environmental Information Into The RPS Calculator And Developing And Selecting RPS Calculator Portfolios; (2) Entering The Staff Paper Into The Record, And (3) Setting A Comment Schedule, Attachment A, August 28, 2015.

[4] California Independent System Operator Corporation, Revised Transmission Planning Process Proposal, Filed June 4, 2010 (FERC Docket No. ER10-1401-000).

likely to occur."[5] The identification of a "common set" of transmission elements is essential to achieving the goal of minimizing the risk of stranded transmission investment.

In the TPP process, this common set of transmission upgrades can then be prioritized and sequenced based on which provides the most system reliability and economic benefits. The result will be a least-regrets transmission plan that supports the achievement of the state's policy goals while addressing the economic and reliability needs of the CAISO-controlled grid in a rational and systematic fashion.

The CAISO essentially used a least-regrets practice when it planned for the Tehachapi Renewables Transmission Project and the Sunrise Powerlink, even though the protocols set forth in the CAISO's revised tariff were not yet in place.[6] After that, however, the CAISO had to grapple with a tidal wave of renewable energy developments, with an interconnection queue that exceeded the state's RPS goal by more than 10-fold. Now that the rush has slowed down, the CAISO can use the authority that it received in 2010 to systematically plan for policy-driven, least-regrets upgrades, using a range of reasonably possible renewable energy futures supplied by the CPUC as the basis for that planning.

As CAISO Vice President Keith Casey noted at the workshop, the CPUC and the CAISO have also recognized that it is not necessarily cost-effective to build up the transmission system to the degree that would be needed to obtain Resource Adequacy (RA) value from all renewables. Rather, it may be more cost-effective for other types of resources (such as storage or existing gas generators) to provide RA and to focus transmission planning for renewables on avoiding significant renewable energy curtailment. This is a much lower bar and will require fewer transmission upgrades. The CPUC and the CAISO are now in the process of conducting a special study to examine the grid's ability to accommodate energy-only resources.

This is a major change from previous planning practice (assumed under RETI 1.0) where it was assumed that renewables must obtain Full Capacity Deliverability Status ("FCDS"), which often requires substantial transmission investment under current CAISO practices. (The CPUC has, on more than one occasion, specifically rejected utility proposals to disallow energy-only bids.[7]) Instead, the RPS Calculator will produce portfolios that include renewables with energy-only and FCD status where the latter is cost-effective. Per the CAISO tariff, any renewable resources that will not attain FCDS as a result

[5] *California Independent System Operator Corp.,* 133 FERC ¶ 61,224, PP 191-92 (2010).

[6] One of us, Dariush Shirmohammadi, can attest to this, having served as the CAISO's Director of Regional Transmission when these two upgrades were planned.

[7] For example, in CPUC Decision 13-11-024 conditionally accepting the utilities' 2013 RPS plans, the Commission reiterated that the utilities must accept bids from energy-only projects and rejected SCE's proposal to require sellers with energy-only projects to bear the risk of negative CAISO market prices (but accepted SCE's proposal to apply a congestion adder to energy-only projects).

of the transmission plan can seek that status in the generation-interconnection process (the cost of which will likely be reduced as a result of the least-regrets plan having been approved).[8]

With regard to any network reliability upgrades ("collector" lines, using the terminology of RETI 1.0) that may be necessary to connect specific renewable resource areas to the transmission-system backbone (which will be bolstered as needed under the least-regrets plan), developers can be expected to share in the cost of these lesser upgrades based on CAISO's existing tariff and protocols. The CAISO has designed its Generator Interconnection and Deliverability Allocation Procedure (GIDAP) to partially reimburse developers for network reliability upgrades (i.e., these costs are partially borne by ratepayers). The balance is shared among developers in the renewable resource area based on an adopted formula.

3. ENVIRONMENTAL PLANNING SHOULD BE DONE ONLY BY THOSE JURISDICTIONS WITH APPROPRIATE LEGAL AUTHORITY

The attempt in RETI 1.0 to screen specific resource areas on environmental grounds turned out to be a largely arbitrary and controversial exercise. Ultimately, the impact of this exercise was moot due to the least-regrets nature of the RETI conceptual transmission plan, which remains robust under most any pattern of development and is thus unaffected by the environmental scoring (i.e., the environmental scores had no bearing on whether the resource area was favored or disfavored by the least-regrets transmission plan).

This RETI 1.0 experience on environmental scoring led to the recognition that appropriate jurisdictional entities need to make any renewable-energy-related land use decisions, rather than stakeholders and non-jurisdictional entities. At least partly as a result, the focus shifted to the Desert Renewable Energy Conservation Plan (DRECP), now in its eighth year. While, unfortunately, the DRECP is fast leading to wind energy prohibitions in most of the state's best remaining high-quality wind resource areas,[9] these federal and county plans, when completed, can be used as definitive inputs to the renewable energy planning processes described above. Based on current draft BLM and county land-use plans, these inputs will likely show that the commercial availability of wind energy within California has been dramatically reduced.[10]

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[8] CalWEA has previously pointed out that generators need to know what credit they will receive for capacity in the utilities' LCBF processes in order to make an efficient judgment about whether it should pay for FCDS. See CalWEA's comments on the utilities' 2013 RPS Procurement Plans.

[9] See CalWEA's comments on the Draft DRECP and NEPA/CEQA EIR/EIS and commentary on a proposed wind energy ban in Los Angeles County.

[10] The cost impacts of these restrictions can preliminarily be seen in the Energy Division's Staff Paper referenced in Footnote 3, above (Appendix A). Table 6 on p. 19/41 and Appendix C Table 5 in the Staff Paper show that the draft DRECP's restrictions on wind energy could, by reducing cost-effective wind energy development, raise the cost of a 50% RPS within a range of $29 million to $365 million annually.

While the CPUC's Energy Division is in the process of determining whether and how environmental factors should affect the renewable resource portfolios that are generated by the RPS Calculator, CalWEA believes it is essential that the CPUC and other state energy agencies heed the lessons learned above – namely, a range of reasonably plausible renewable energy scenarios should be created to support the development of a least-regrets transmission plan and to support system resource planning via the LTPP.[11] The state can, and should, rely on California's very extensive and complex environmental review processes, as well as those of several federal government agencies, to approve or reject proposed projects as appropriate, and to develop land-use plans, rather than seek to pre-judge proposed projects in non-siting processes based on insufficient and incomplete information. The Legislature is also free to act in favor of any specific development areas. But the state's energy agencies should not act outside of their authority and should defer to the due process that is built into current legally authorized environmental review processes.

Adopting a least-regrets transmission plan, which will facilitate most any pattern of renewable energy development, will enable the competitive process and jurisdictional permitting and land-use planning processes to determine winning and losing renewable energy projects based on their economic attributes and environmental impacts. Competition among generators will be more robust because major system upgrades will be known in advance, thus simplifying the generation-interconnection process and reducing development lead-time because major upgrades would be planned and paid for, with at least some upgrades underway.

4. MAKING INFRASTRUCTURE INVESTMENTS REQUIRES APPROPRIATE PROCEDURAL CHANNELS

The 2009 Conceptual Transmission Plan that was produced under RETI 1.0 – as solid as it was – was never acted upon. (The Tehachapi and Sunrise plans were in the base case for the RETI 1.0 studies, because they were already well underway. The RETI Conceptual Plan went beyond these upgrades.) Thus, a process that must have cost the state, and stakeholders, many millions of dollars ultimately made no contribution towards building the infrastructure that is needed to support higher renewable energy targets. A big part of the problem, if not the problem, was that RETI 1.0 was not rooted in the agency processes that result in decisions on building infrastructure.

This procedural problem has been addressed in the better-aligned RPS, LTPP and TPP planning processes now underway at the CPUC and the CAISO, described above, which, we believe, will lead to decisions to invest in the backbone transmission upgrades that will be critically important in preventing potentially significant transmission-related curtailments and in securing necessary integration resources as we approach and surpass 33% renewables. Moreover, if CAISO expands to include PacifiCorp's territory, as the two parties are currently studying, the coordinated CPUC-CAISO processes that have been developed to identify cost-effective, least-regrets upgrades needed to support California's policy

[11] While this range of scenarios might include a subjectively determined portfolio reflecting the preferences of certain stakeholders, there should be no attempt to "score" resource areas or to seek stakeholder consensus regarding such scoring.

goals should evolve to reflect the expanded territory and should be applicable to the expanded territory. Obviously, however, any upgrades located in other states would be subject to the permitting processes in those states, rather than at the CPUC.

5. IMPLICATIONS FOR RETI 2.0

As described above, the state has made a great deal of progress since -- and in part because of what we learned from -- the RETI 1.0 process. In many ways, this progress would render any effort akin to RETI 1.0 unnecessary. RETI 2.0 should recognize this progress and seek to complement the efforts that are already well underway.

RETI 2.0 should be scoped to ensure that it does not distract or take away resources from these processes, or create a competing forum for debate. Not only would this create an enormous resource burden on stakeholders, but it could actually delay progress in building the transmission upgrades and other resources that we will soon need to avoid potentially significant curtailment of renewable energy. Delaying the adoption of a least-regrets plan would also fail to facilitate the next wave of renewable energy development that can be expected with the Legislature's recent adoption of SB 350. Given the seven-to-10-year lead time typically required to build transmission upgrades needed to resolve any identified transmission constraints, a foundational energy infrastructure plan should be adopted as soon as possible to facilitate the achievement of the state's post-2020 clean-energy goals.

RETI 2.0 should seek to fill in any gaps in current processes, where those gaps cannot be more efficiently filled within existing state agency processes, or inter-state regional planning processes. For example:

- RETI 2.0 could serve as an inter-agency forum to ensure that California agencies are acting in accordance with the intended alignment of their processes such that, for example, the CAISO's adopted transmission upgrades can be expeditiously processed at the CPUC;

- RETI 2.0 could serve as a forum to consider how California's current LTPP and TPP processes and practices should relate to the CAISO's expanded regional market; and/or

- RETI 2.0 could serve as a forum to discuss California's role and objectives in Western transmission planning processes, such as the FERC Order 1000 process, and, more informally, at the Committee on Regional Electric Power Cooperation (CREPC).

6. CONCLUSION

For all of the above reasons, CalWEA urges the state to continue its important work in aligning agency processes to improve their efficiency and effectiveness in promoting the infrastructure necessary to cost-effectively attain the state's renewable energy goals. CalWEA looks forward to continued discussions with California's energy agencies on these critically important goals.

Sincerely,

/s/	/s/
Nancy Rader	Dariush Shirmohammadi
Executive Director	Technical Director