Comments of the California Wind Energy Association on the CAISO's Renewable Portfolio Assumptions for 2011/2012 Transmission Plan

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Introduction & Summary

The California Wind Energy Association (CalWEA) appreciates this opportunity to comment on the California ISO's (CAISO's) Renewable Portfolio Assumptions that are planned to be used to develop the 2011/2012 Transmission Plan for the CAISO footprint. As indicated in our past comments, CalWEA has been very supportive of the CAISO's Revised Transmission Planning Process (RTPP) to prospectively plan for transmission upgrades in anticipation of the renewable energy generation development required to meet California's Renewables Portfolio Standard (RPS) goals. The central element of this revised process is the multi-scenario "least regrets" transmission plan, the purpose of which is to identify new high-priority backbone transmission lines that are likely to be used and useful for utility service under a variety of renewable energy development scenarios. Two essential benefits of this multi-scenario approach are minimizing the risk of stranded transmission investment, and avoiding the conferral of market advantages to particular renewable generation areas.

CalWEA is encouraged that the CAISO is working closely with the California Public Utilities Commission (CPUC) in developing the renewable portfolio assumptions to be used in the development of its 2011-12 transmission plan. We understand that the CAISO intends to use the four renewable portfolio scenarios that the CPUC has developed as part of its Long-Term Procurement Plan (LTPP) proceedings. However, the way in which the CAISO intends to use this information (at presented its July 8, 2011, stakeholder meeting) will not produce "least regrets" results for the essential reason that the CAISO contemplates relying on a single CPUC scenario as its "base case", and using the other three scenarios mainly for sensitivity analysis, rather than treating each of the four CPUC scenarios as an independent base case and developing a transmission plan separately for each. Under the latter approach, elements common to all or most scenarios would form the basis of the least-regrets plan, whereas the former approach is likely to produce either a plan that works well only for the base case (if the needs of the sensitivity cases are not addressed), or over-builds the system in order to work well also for each of the sensitivity cases.

Only a plan that rest on a multi-scenario approach, as presented above, will meet the intent of the least-regrets policy planning that FERC approved because it will demonstrate that the plan provides access to new renewable resources in a competitively neutral way while minimizes the risk of over-building and stranding transmission investment. We strongly recommend, therefore, that the CAISO develop four independent transmission plans based on each of the CPUC's four LTPP scenarios, and develop its TPP based on the elements common to all or most of those scenarios. Further below in these comments, we will offer a technical approach for making this broad multi-scenario least regrets planning work in practice.

The Purpose of Scenarios

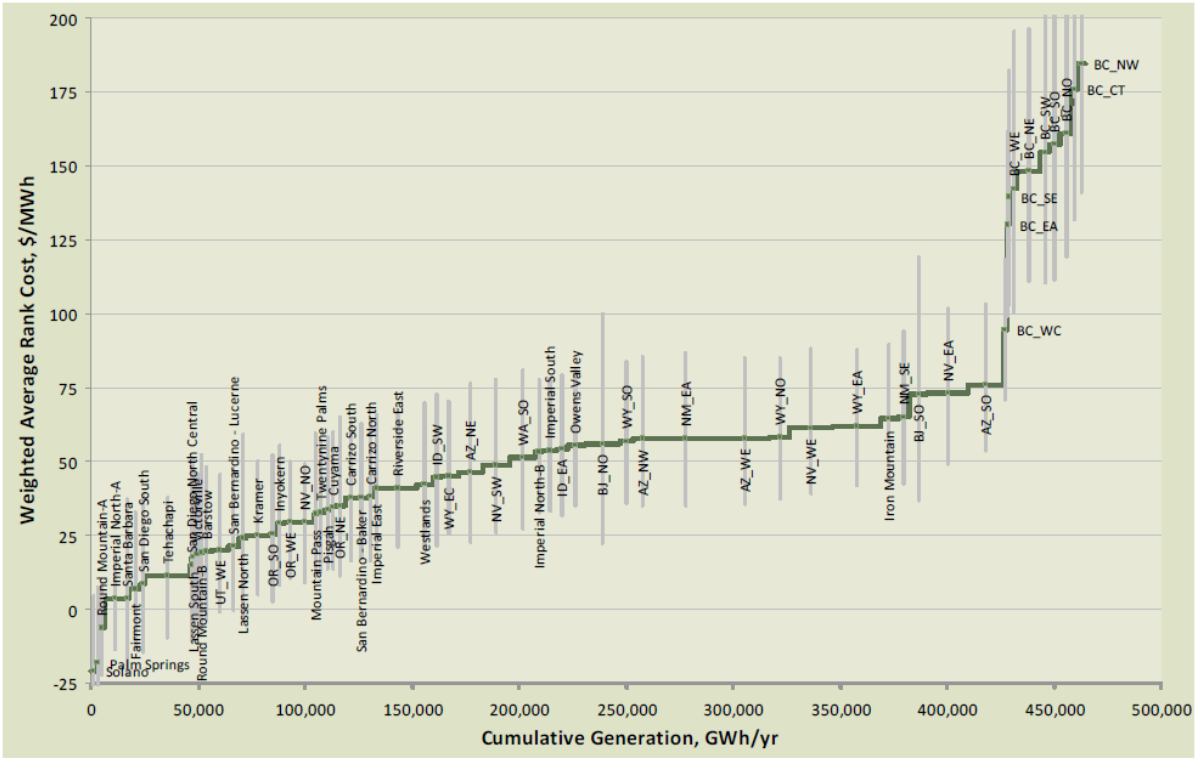
The CPUC developed four 2020 RPS scenarios in recognition of the fact that no one can predict the future given numerous variables that are subject to considerable uncertainty. Each of the scenarios provides a plausible market outcome, but relies on many assumptions. Each of the assumptions is open to critique, and thus each of the scenarios can be picked apart as flawed.[1] Taken together, however, the CPUC's four scenarios provide a wide range of plausible market outcomes that underscore the robust need for any transmission element that would advance all of the four outcomes. For the CAISO to use just one of the scenarios as its base case, therefore, flies in the face of the purpose of developing scenarios in the first place and effectively prejudges market outcomes.

To illustrate the uncertainty of any single scenario, consider that the CPUC's scenarios rely on the Competitive Renewable Energy Zone (CREZ) economic ranking analysis performed through the Renewable Energy Transmission Initiative (RETI) process. As indicated in the RETI Final Report (May 2010), the estimated economic developments cost for each CREZ is subject to a very wide uncertainty band – see figure below.

Placing emphasis on one CPUC scenario over all others confers certainty where there is none. To plan transmission around a single, uncertain scenario would effectively re-constitute the now defunct central generation/transmission planning process that would be harmful to the competitive resource development. In fact, much of the discussion during the July 8, 2011, stakeholder meeting seemed to point to a desire to develop one transmission plan based on one of the CPUC's proposed scenarios. The savings, if any, from developing a single transmission plan to a specific set of renewable development areas would be dwarfed by the cost of stifling competition in resource development. Development of such a transmission plan should also give market power to renewable developers located at the selected renewable development areas while driving up land values in those areas.

By contrast, embarking on the development of major backbone transmission upgrades, that normally have extremely long lead times, will facilitate a variety of market outcomes and fosters a competitive renewable energy market while improving the reliability and efficiency of the operation of the CAISO controlled grid and the California power system.

[1] As one example of such potentially flawed assumptions, consider the CPUC's high-distributed-generation scenario. The CPUC has assumed that small distributed resources interconnecting at the local distribution level (up to a certain percentage of the local system load) not only do not cause any grid costs but also provide grid benefits. Even at low penetration, however, distribution-level generation could create a need for distribution system upgrades that are, on a per-MWh basis, normally more costly than transmission upgrades. This presumed grid-upgrade benefit is not only speculative but also double-counts the presumed benefit since large renewable projects are already assigned major transmission upgrade costs.



Weighted Average Rank Cost (2010 $/MWh) for CREZs with Uncertainty (RETI Final Report)

Least Regrets Transmission Planning

For years now, CalWEA has advocated the concept of Least Regrets Transmission Planning as a way of planning for backbone transmission upgrades that not only help with development of renewable resources under a wide variety of development scenarios but also promote the reliable and economic operation of the CAISO controlled grid with minimal, if any, economically stranded transmission components.[2] The Tehachapi, the Sunrise Powerlink and the Devers Palo Verde Line 2 transmission projects are perfect examples of such Least Regrets Transmission Plans. The results of interconnection studies over the past several years have shown that our failure in the past to develop sufficient Least Regrets Transmission Plans has meant that perfectly good renewable generation projects become saddled with the massive cost of backbone transmission upgrades, whose capacity they barely need, and in the process both the perfectly good generation and transmission projects become abandoned.

When CAISO developed its RTPP tariff, we were very encouraged that it adopted both the terminology and the general idea of Least Regrets Transmission Planning. Based on its tariff, 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., CalWEA's September 30, 2009, comments to the CAISO on pro-active renewables transmission planning.

likely to occur."[3] Moreover, the CAISO promised FERC that it "will share with stakeholders the complete scenarios examined, with an explanation as to the underlying assumptions for each one and the rationale for proposing particular transmission elements in Category 1 and Category 2."

However, as we have warned on numerous occasions, the technical core of the CAISO transmission planning process has not changed to follow the adoption of the Least Regrets Transmission Planning idea. Based on discussion at the July 8 stakeholder meeting, the CAISO still appears to want to use a single renewable generation development base case to develop its base case transmission plan and will use the sensitivity cases simply to validate that the transmission plan developed for the base case is reasonable. Hence, if the base case transmission plan includes a "radial" (or "semi-radial") transmission component to a specific renewable development area and the sensitivity cases do not show any issue with such a "radial" component, the "radial" line will be preserved as part of the transmission plan. By definition, little to no reliability and economic benefits would come from such a "radial" transmission line. Moreover, if the plans for development of renewable projects in the targeted area are scrapped for any reason, among which could be that the generation projects in that area start to exercise market power, the line will become stranded.

As explained above, the practice of single base case transmission planning, which is consistent with traditional transmission planning, is contrary to the principles of Least Regrets Transmission Planning. Least Regrets Transmission Planning would not work with a single base case. Instead, in Least Regrets Transmission Planning, each of the generation development scenarios should be treated as an "independent base case" resulting in a separate and independent transmission solution. The development of a transmission solution for each independent base case would also be based on a framework that is different from the traditional transmission planning practice where transmission solutions to deal with system needs are, to the extent possible, based on local upgrades. Following such a principle, it will be very difficult to develop common transmission components that form a "least regrets transmission plan." Instead, in a "least-regrets" transmission planning framework, the transmission needs of every independent base case are addressed, to the extent practicable, using a "regional transmission solution" that may appear to be more expansive than a local solution. Once the regional solution for each of the independent base cases is found in this fashion, the cross section of regional transmission solutions will constitute the "Least Regrets Transmission Plan."

If it is too difficult for the CAISO to change the technical core of its transmission planning practice to correspond to the multi-scenario analysis approach described above, a second-best approach would be for the CAISO to develop its base case transmission plan first, but eliminate from that plan any part of the plan that is not needed by at least one of the other resource development scenarios. We believe that such an approach is not as efficient as the multi-scenario transmission planning that we have presented above, but it should reduce the probability of stranding transmission assets and skewing the market based on imperfect information.

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