



OFFICE OF THE GOVERNOR

August 3, 2011

Mr. Brad Nickell
Director, Transmission Expansion Planning
Western Electricity Coordinating Council
155 North 400 West, Suite 200
Salt Lake City, Utah 84103

Re: Reflecting current California trends and policies in regional transmission planning

Dear Mr. Nickell:

In the time since the Western Electricity Coordinating Council (WECC) embarked on its process of preparing the western interconnection Regional Transmission Plan, much has occurred in California. Significant reductions in the technology cost of solar generation and the availability of investment tax credits have resulted in large scale resource development within the borders of our state. We also have a new Administration that has put into place strong policies supporting additional in-state and distributed local generation. Taken together these recent trends significantly affect the outlook for California as an import market for power in the western United States.

In 2010 alone, the State of California approved eleven large solar and wind projects together totaling over 5,000 megawatts (MW) of renewable generation capacity.¹ In 2011, the state has already permitted an additional 1,000 MW of solar PV projects; we anticipate that by the end of the year we will have permitted another 5,000 MW of solar and wind, bringing the total amount of large-scale renewable energy projects permitted in the state in only two years to approximately 10,000 MW. This surge in permitting moves California closer to bringing online the additional 15,000 to 20,000 MW of renewable generation capacity needed to meet our goal of generating one-third of our power from renewable energy resources by 2020.

The pipeline of projects seeking future approval is robust. The California Energy Commission has recently found 513 projects seeking permits to construct and operate in the State of California representing over 49,775 MW of nameplate renewable generation capacity. This is in addition to the 5,300 MW of large-scale (200 MW plus) projects

¹ Of these 5,000 MW, approximately 3,500 of them were a direct result of the historic collaboration between California and the U.S. Department of the Interior.



permitted in California last year, the 1,000 MW permitted to-date this year and several other smaller projects that have already begun construction in California.

This success in attracting and permitting projects complements progress in other elements of project development, including interconnection, contracting and transmission development. The California Independent System Operator (CAISO) indicates that renewable projects totaling 70,000 MW of installed capacity are seeking to connect to the CAISO-managed grid.

Additionally, investor owned utilities in California have executed power purchase agreements in excess of 33 percent of their expected 2020 retail sales.² The CAISO, in concert with the California Transmission Planning Group's 2010 planning, has recently adopted a statewide transmission plan that identifies the transmission needed to deliver sufficient resources to meet 33 percent. Several of the significant elements of the plan are already under construction or in the permitting process.

While these are by no means perfect metrics or forecasts of the future, they all point to the same consideration - that California is taking necessary steps to meet its 33 percent renewable portfolio standard (RPS). Should we be able to develop higher levels than 33 percent (hopefully a 40 percent goal), we will be positioning ourselves for relationships with other load areas outside California and can hopefully provide mutual benefit in cost-efficient renewable market transfers.³

Looking back, until the first solar project was approved last year, California had not permitted a large-solar project since 1989. Thus, we fully understand that to-date there would be no reason to assume that California would be able to pursue its renewable energy needs in-state. However, things are progressing here in California at an unprecedented pace.

What does all of this mean for the regional planning process?

California's large market for electrical power and the state's renewable portfolio procurement policy will be central in delineating need for new renewables and transmission outside of the state. We are concerned that several of the scenarios considered in the Transmission Expansion Planning Policy Committee (TEPPC) studies for 2019 and 2020 time horizons were defined before very recent siting successes, ARRA incentives, transmission development, procurement activity and the new Brown Administration's policies for distributed generation. We are also particularly concerned when we see proposals for large renewable energy resource development outside of California interconnecting across long distances directly into California balancing authorities. This may be problematic for three primary reasons:

² While not all of these PPAs and interconnection requests are for California-based resources, to date, approximately 75% of them have been within California's borders.

³ The potential of exports is strengthened by Governor Brown's goal of installing 12,000 MW of distributed renewables across the state - investments that will help CA meet its peak needs.

1. **Cost:** The west-wide benefits that WECC's studies attribute to several of these projects are driven by assumptions about generation and transmission costs, capacity factors, and other key considerations. As you know, the developer of at least one significant line, TransWest Express, expects the project to cost about 70 percent more than WECC's original assumptions for transmission capital costs would indicate. We thus appreciate the ongoing efforts of WECC staff to review these and other assumptions and to revise capital cost assumptions upward.⁴ We look forward to working with you in the next study cycle to ensure that all such assumptions reflect the best-available information gleaned from developers, utilities, regulatory filings, independent estimates and other sources.
2. **Risk:** When procuring energy for their RPS goals, California utilities consider several factors in addition to cost, including the risk associated with particular generation and related transmission services. Transmission lines proposed to stretch hundreds of miles over private and public lands face significant permitting and development risk – perhaps most so in the case of DC lines, which offer few electrical benefits to the states they cross. The WECC final plan should report not only the potential costs and benefits associated with transmission and generation options, but also the risks associated with those options, and how those risks, and potential delays in siting and permitted the lines, affect procurement priorities and decisions.
3. **Importance of a Dynamic Western Grid:** With high penetrations of renewable energy, customers across the West will benefit most from a grid that is truly dynamic and allows for the flexible importing and exporting of power and ancillary services in real time among balancing authorities.⁵ We encourage the efforts WECC has underway on initiatives supporting such a future. These include movement toward sub-hourly scheduling, which would assist with integrating intermittent renewable generation across the West, with significant benefits for California. We are also supportive of WECC's efforts to study energy imbalance markets. By enabling additional renewable generation output while helping to minimize reserve requirements and load following requirements, such initiatives balance responsible and prudent system operation with the increasing need for flexibility.

We recognize the importance of regional planning for the interconnected western system. We are all part of one grid and moving toward more efficient regional markets should enhance our ability to integrate more renewables at lower cost. As you progress forward in finalizing the first Regional Transmission Plan, we would note that 10 years is not too distant, and most procurement to meet statutory RPS mandates is already well underway by load serving entities and states. The relevance and usefulness of the first plan will

⁴ We note, however, that the revised WECC value of approximately \$2.4 million per mile is still well below that of the developer (at \$3.3 million per mile), and a depicted sensitivity range suggests a potential cost as low as \$1.5 million per mile. Thus, we remain concerned that WECC's current modeling may not reflect realistic infrastructure options.

⁵ We would point out that DC lines into California may be less expensive than AC lines over long distances, but they allow a much narrower range of opportunities for trading of power, and thus offer less versatility of west-wide energy system benefits across a range of uncertain future conditions.

largely depend on how closely it reflects trends and results on the ground in the western states and utilities.

The State of California is committed to working closely with WECC to plan for and build out the energy infrastructure needed to move the West and the nation towards a cleaner energy future. We understand that as a region you must plan within the federal framework of Federal Energy Regulatory Commission Order 890. At the same time we urge you to undertake planning in a manner that is cognizant of the rapidly changing dynamics in California. It is especially important that alternative generation and transmission futures are evaluated in a way that captures the many factors that influence actual procurement decisions.

Should you have any questions or wish to discuss this further please do not hesitate to contact me at (916) 445-7665.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Picker', written in a cursive style.

Michael Picker,
Senior Advisor to the Governor for Renewable Energy Facilities

Cc:

Steven Chu, United States Secretary of Energy
Ken Salazar, United States Secretary of the Interior
Nancy Sutley, Chair, White House Council on Environmental Quality
Thomas Vilsack, United States Secretary of Agriculture
John Wellinghoff, Chair, Federal Energy Regulatory Commission