

**California Energy Commission**

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**California Public Utilities Commission**

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July 30, 2015

Stephen Berberich  
President and Chief Executive Officer  
California Independent System Operator  
P.O. Box 639014  
Folsom, California 95763-9014

Dear Steve:

The Governor's Executive Order B-30-15 commits California to reduce its greenhouse gas emissions 40 percent below 1990 levels by 2030 and a variety of legislative proposals (particularly SB 350 and SB 32) to ratify this commitment into law. It is time for the CEC, CPUC and CAISO to launch a new transmission planning initiative.

Our two agencies will establish a Renewable Energy Transmission Initiative (RETI) 2.0 initiative to establish the relative potential associated with various renewable locations in California, and we request that the CAISO participate in this new process to help map out the associated transmission infrastructure. Given the implications of both 111(d) and PacifiCorp's interest in joining the CAISO, this effort will need to consider regional renewable opportunities as well.

Since the goal for California is to reduce greenhouse gas emissions by 40 percent below 1990 levels by 2030, an important pillar of that goal is to produce 50% of our electricity from renewable power generation.

We have a proven model to ensure climate goals from clean electricity and renewable power are met. For example, California saw record numbers of renewable projects permitted during the period from 2009 to 2013. Many of those permitted projects are now in full operation, and there are over 11,000 MW of renewable projects in the pipeline that have received their environmental permits allowing construction. California now has over 21,000 megawatts (MW) of renewable capacity installed within its borders, but also relies on renewable power from outside of our state.

This project was successful because it was supported by a proactive transmission planning effort going back to 2008, becoming the Renewable Energy Transmission Initiative and the California Transmission Planning Group (CTPG). Through these stakeholder efforts, the best concentrations of the renewable resources were identified. Using the science-driven findings and the broad consensus that resulted, the CAISO identified the new transmission lines that were needed to interconnect the high quality renewable projects with the load basins.

One example of successful policy planning and stakeholder involvement is the Sunrise Powerlink. Within one year of initial energization, the line was fully utilized by new wind, solar, and geothermal projects from the east. The Sunrise Powerlink allows for over 1,300 MW of renewable energy from the Imperial Valley to be delivered to the San Diego load center. The Tehachapi Renewable Transmission Project is another example. Initially designed to deliver one of the best wind resources in California to customer demand in the LA metropolitan region, it also helps to deliver power from new solar projects when the wind isn't blowing. The Tehachapi Renewable Transmission

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Project will allow 4,500 MW of wind and solar generation to be delivered to the Los Angeles area. By diversifying the resources California depends on, the existing and new transmission system is becoming more efficient.

Many of the transmission lines identified to get California to 33 percent renewable have long interconnection queues and are likely to have a lengthy permitting process, but once constructed they will be fully utilized. If California plans to deliver on its promise to reduce greenhouse gas emissions in the electricity sector, and also support cleaner buildings and transportation, we must begin to map our plans. Careful consideration must be paid to existing transmission capacity that may be freed up as older, less efficient conventional power plants decommission, and allow for additional low-carbon options to take their place. However, new transmission is inevitable to meet the needs of an increasingly carbon-free California economy, and it must be methodically thought through with stakeholders in the most transparent and prudent manner.

We envision this process beginning over the next year so that the CEC and CPUC will send policy recommendations for the 2030 renewable portfolios in fall of 2016.

We invite participation by regional stakeholders, but will obviously respect the authority of the regulators throughout the west. EPA's pending regulations (111(d)) will encourage greater communication across the west. This presents many opportunities to take advantage of resource diversity as well as regional balancing of electricity. For example, through the Energy Imbalance Market, the CAISO has been able to sell cheap, low-carbon, excess power to other states in the west, which has resulted in lower greenhouse gas emissions for those states and reduced the need to curtail the resource in our state.

For many states in the west (due to when the sun sets), their electricity consumption typically peaks two hours earlier than California does, through a regional market that can be taken advantage of and California can deliver clean solar power that is in excess to them. There are similar advantages in the western wind industry. Much of the Midwest and Great Plains wind resources tend to have the highest production during the 5:00 pm to 9:00 pm PST range, which is when load is greatest for California. California could take advantage of the low-cost, renewable energy with a more interconnected regional market in the West.

While this project will be challenging, it is also a great opportunity for the western United States to set an example for the rest of the United States and even the world (Europe especially) to show that regional integration can actually lead to lower priced electricity and great reductions in greenhouse gas reductions.

We look forward to working together to develop the portfolios needed for the CAISO's transmission plan, and to ensure the greenhouse gas reduction goals identified by our Governor are met.

Sincerely,



**Robert B. Weisenmiller**  
Chair  
California Energy Commission



**Michael Picker**  
President  
California Public Utilities Commission

cc: Rob Oglesby, Executive Director, California Energy Commission  
Tim Sullivan, Executive Director, California Public Utilities Commission  
Karen Edson, California Independent System Operator