Testimony of Commissioner Dian Grueneich of the California Public Utilities Commission

Before the Committee on Natural Resources Subcommittees on Energy and Mineral Resources and Water and Power

Joint Oversight Hearing on "Getting Past Gridlock: Models for Renewable Energy Siting and Transmission"

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Thank you Chairman Costa, Chairwoman Napolitano, and the members of the Subcommittees for opportunity to testify today.

As background, I have served as the lead commissioner on a number of major transmission permitting cases, with a focus on siting transmission to areas of high renewable potential, helped launch the California Renewable Energy Transmission Initiative (RETI), and serve on the Steering Committee of the Western Renewable Energy Zone (WREZ) Initiative, the Western Interconnection's Transmission Expansion Planning and Policy Committee (TEPPC), and on the new State-Provincial Steering Committee set up in the Western Interconnection in anticipation of upcoming funding from the U.S. Department of Energy (DOE) for interconnection-wide transmission analysis and funding under the American Recovery and Reinvestment Act (ARRA). Last year I participated in DOE's Electricity Advisory Council's recommendations on federal actions needed to support renewable and transmission development. I also testified earlier this year before Congress on the renewable, transmission, and smart grid provisions of the American Clean Energy and Security Act of 2009 (ACES).[1]

I am speaking today in my capacity as an individual Commissioner at the California Public Utilities Commission (CPUC) and my views do not necessarily reflect the views of the entire Commission. My comments include input from the California Energy Commission (CEC) in several of the areas where both agencies are working together.

Summary

Renewable and related transmission line development is a critical issue. Underbuilding these resources means we will not be able to reduce our nation's greenhouse gas emissions at the levels needed to prevent catastrophic climate change. Overbuilding, however, will result in billions of dollars of stranded consumer costs we cannot afford, major environmental degradation, and unnecessary public opposition.

[1] My testimony is available at: http://www.cpuc.ca.gov/NR/rdonlyres/7F63212D-CB4B-4B8E-A536-A545489D33E5/0/WaxmanMarkeytestimonyfinal.pdf

Thus, the challenge we all face is establishing credible public planning and permitting processes to identify the level and location of renewable resources and transmission lines truly needed, meeting clearly identified economic and environmental criteria, and then ensuring the approved resources are financed and built in a reasonable timeframe.

In the West, we are blessed with an abundance of renewable resources as well as an almost unlimited and greatly untapped supply of energy efficiency opportunities. Our greatest task is ensuring that we proceed thoughtfully, pursuing a sensible clean energy path for renewable and transmission development that maximizes economic benefits and minimizes environmental impacts. And, in the West, an area of particular focus needs to be the energy/water nexus, particularly with regard to development of utility-scale projects.

Renewable and transmission issues are particularly important for California given our state law – the 2006 Global Warming Solutions Act, commonly known as AB 32. Under AB 32, California is planning to produce 33% of its electricity from renewable resources by 2020, the most ambitious goal in the country. And, in terms of the entire Western Interconnection, this accounts for 2/3 of the energy from renewable generation to meet Western states' aggregate Renewable Portfolio Standard (RPS) goals by 2020. Thus, our interest and role in these efforts is pivotal and we welcome the increased support at the federal level for these efforts.

Today I would like to make the following major points:

- Transmission and large-scale renewable planning must occur in the context of overall energy planning that prioritizes energy efficiency, demand response, and use of small-scale, community based renewable resources;
- The California Renewable Energy Transmission Initiative (RETI) process is a successful state-level model;
- Broader regional and interconnection planning efforts and particularly WREZ and the upcoming DOE ARRA funded interconnection wide planning process should build upon and defer to state planning and permitting initiatives; and
- Enhanced federal land use agency involvement and cooperation with state agencies in renewable and transmission planning and permitting is essential.

Renewable and Transmission Development Must Be Done In Conjunction with Aggressive Pursuit of Energy Efficiency, Demand Response, and Small-Scale, Community Based Renewable Resources

California's renewable and transmission development is done in the context of an energy "loading order" in which all cost-effective energy efficiency and demand response is pursued as the highest priority. This intense focus on energy efficiency has not only kept per capita use of electricity in California flat over three decades but it reduces

dramatically the overall demand for large-scale generation, including renewables, and transmission lines.[2]

Large scale development of renewables and associated transmission lines is very costly – totaling billions of dollars now and likely to total trillions of dollars shortly. Even with careful mitigation measures, this development will cause significant environmental impacts, not the least of which will be increased demand for limited water resources, particularly in the West, as well as major impacts on wildlife and biological resources.

Prioritizing energy efficiency, demand response, and use of small scale renewable resources close to load centers, such as California's Million Solar Roof Initiative, must be part of the larger effort in moving our nation towards a clean energy future. We must not jump into massive development of large-scale renewable and transmission projects without first ensuring we are minimizing the need for, cost and impact of these large-scale projects by prioritizing use of energy efficiency, demand response, and smaller scale, community based renewable resources.

California's Renewable Energy Transmission Initiative (RETI) Is a Successful Planning Model

The California Renewable Energy Transmission Initiative (RETI) is a proactive, consensus-based stakeholder process launched two years ago to identify the best areas (or zones) for renewable development in the state and the new transmission needed to access those zones. It is a joint effort of the CPUC, the CEC, and the California Independent System Operator (CAISO), along with the state's municipal utilities.

RETI work is organized into three phases:

Phase 1:	Identification, Characterization and ranking of Competitive Renewable Energy Zones (CREZ) in California and neighboring regions;
Phase 2:	Development of a statewide conceptual transmission plan to access priority CREZ , based on more detailed analysis of CREZ; and
Phase 3:	Development of detailed plans of service for priority components of the statewide transmission plan.

Phase 1 work was completed in 2008. In August, 2009, RETI finalized its Phase 2 Report, the development of a statewide conceptual transmission plan, designed to meet the goal of obtaining 33 percent of California's electricity from renewable resources by 2020, while avoiding development of duplicative transmission lines. The Phase 2 Report reflects the results of a consensus-driven, transparent, and objective methodology for evaluating transmission lines to carry renewables.

[2] The energy efficiency programs funded by ratepayers of California's investor-owned utilities offset a large major powerplant (500 MW) annually; the state's building and appliance standards produce equally large savings.

We are now in the Phase 3 process, using RETI's work as an input into a variety of formal state energy planning, permitting, and other related activities, including the CPUC's transmission permitting cases and utility procurement decisions, the CAISO transmission planning process, and the CEC's energy policy reports and renewable siting cases.

There are two aspects of RETI in particular that have been very successful and I urge be included in any federally supported efforts for renewable and transmission development. They are:

a) RETI is a collaborative, stakeholder process, using several mechanisms to ensure open and transparent decision-making.

b) RETI analyzes development based on both economic and environmental screening criteria.

a) RETI Uses Procedural Mechanisms to Ensure a Collaborative Stakeholder Process

RETI involves renewable generation developers, environmental groups, transmission owners, consumers, local, state and federal agencies, tribal representatives, utilities, and others. This broad and diverse stakeholder engagement, ranging far beyond utilities and renewable/transmission developers, is critical. RETI is committed to ensuring that its process is open and transparent, and that recommendations are based on the best publicly available information. Most of us involved in RETI have concluded that engagement of stakeholders is RETI's greatest value, and its greatest contribution to the transmission planning process.

We have found that public meetings in the areas most likely to be affected by generation and transmission development have been key to getting input from stakeholders, educating stakeholders about what RETI is trying to do, and building support for RETI's work. By honestly listening, by responding to peoples' concerns and by incorporating their input into its reports, RETI has built goodwill and – more importantly – ended up with a better product. Going forward, we expect outreach of this sort to be increasingly important but it is exceedingly challenging, given limited state financial and staff resources.

We have also found the use of technical working groups to be an effective means of involving dozens of stakeholders in RETI's analysis. For example, an Environmental Working Group open to any interested stakeholder developed the screens and ranking process used to identify and rank CREZs and transmission segments by environmental concern. These recommendations were later adopted by consensus of the Stakeholder Steering Committee.

RETI has also benefited greatly from the direction of a small Coordinating Committee comprised of the entities with responsibility for transmission planning and permitting in California. RETI's Coordinating Committee ensures that RETI's work is objective and transparent, is coordinated with other state processes, and remains on track to produce results useful to processes such as CPUC's transmission siting process.

In addition, RETI has employed neutral facilitators/coordinators who have been critical to making these large and diverse stakeholder efforts work. The use of facilitators with detailed subject knowledge and dedication to RETI's goals has been essential to the process's continued success at building consensus.

RETI has also relied on an independent engineering firm – Black & Veatch – for its CREZ assessment and other technical analysis. This has decreased the burden on stakeholders to perform analyses themselves, while reducing the danger of bias in the methodology and results. Direct engagement between the engineering firm and stakeholders has been critical in ensuring that the methodology and analysis is transparent, accurate, and well-understood.

b) RETI Analyzes Development Based on Both Economic and Environmental Criteria.

The second aspect of RETI that has made its work successful with a broad range of stakeholders, in addition to the procedural aspects listed above, is its use of both economic and environmental screening criteria, done on a transparent basis.

RETI began its work by identifying Competitive Renewable Energy Zones (CREZ) that offered potential development of renewable resources. Many resources were screened out early because of poor economics or unacceptable environmental impacts. The resources that remained were grouped into CREZs according to geography, shared transmission constraints and other factors, and these CREZs were then ranked against each other, again on economic and environmental grounds. Phase 2 of RETI developed a statewide conceptual transmission plan to access these CREZ, and segments of the transmission plan were compared to each other again, based on their economics and environmental concerns. We believe this to be a first-of-its kind effort to consider environmental concerns of generation development on par with economic ones, and it is critical to building public support for transmission lines.

Many stakeholders are increasingly concerned about the overall cost, both economic and environment, of investment in utility-scale projects and extensive new transmission lines. California is responding by using the proactive RETI process to identify the most cost-competitive and least environmentally-harmful renewable generation and transmission. Beyond the obvious benefits such a strategy provides to the state and ratepayers, it also reduces the risk of opposition and costly litigation in transmission and renewable siting cases.

RETI has demonstrated that broad-based, consensus-driven processes are very effective at generating high quality work products, even in the extremely complex and contentious area of renewables and transmission planning

Broader Planning Efforts – Such as WREZ and the Upcoming Federally Supported Interconnection-Wide Process – Are Critical But Should Build Upon and Support State-Level Work

In May 2008, the Western Governors' Association (WGA) initiated the WREZ project, with DOE funding support, to assist stakeholders to facilitate the construction of new, utility scale renewable energy facilities and needed transmission to deliver that energy across the Western Interconnection. In June 2009, the WGA adopted the WREZ Phase 1 report describing work focused on mapping concentrated, high quality resources. The report combines the WREZ's state-specific "hubs" and displays graphical representations of regional utility-scale renewable resource potential, as defined by WREZ assumptions. The WREZ work confirmed earlier studies that the West has an abundance of renewable resources. The difficult questions ahead are deciding which renewable resources to build, that can be done for the least-cost both environmentally and economically, in a reasonable timeframe, and selecting among competing transmission proposals or identifying new proposals.

Earlier this summer, DOE released the ARRA supported Funding Opportunity Announcement (FOA) for interconnection-level analysis and planning. The goal is to strengthen the capabilities in each of the three U.S. interconnections to analyze transmission requirements under a broad range of alternative futures and to develop long-term interconnection-wide transmission expansion plans. ARRA provides the financial support to ensure that regional transmission planning will increase significantly in the next few years, including further steps in the WREZ process.

The CPUC, our Governor's office, and others in California have been extremely active in working with the Western Electricity Coordinating Council (WECC) and WGA in responding to the FOA. We strongly support the increased funding and participation by the federal government. But let me emphasize that it is essential that these broader regional and interconnection planning efforts build upon and defer to state planning and permitting initiatives, particularly those such as RETI that are stakeholder driver, collaborative, and use open and transparent processes. These federally supported efforts must also account for state environmental concerns, particularly with regard to wildlife and habitat protection.

As noted above, transmission planning must not only consider but prioritize demand-side options, including energy efficiency, demand response, and distributed generation. Broad consideration of demand-side resources in transmission planning will greatly reduce the possibility of unnecessary transmission infrastructure and stranded investments. In our work with WECC and WGA, California has requested that a Demand-Side Working Group be established as part of the new DOE ARRA process to provide input into the expanded transmission planning process.

Transmission planning supported at the federal level must also include full analysis of the GHG emissions that would occur under various scenarios analyzed, including fossil generation used to firm or shape intermittent renewable resources. California must understand how regionally developed approaches are consistent with its efforts on AB 32. Similar knowledge is needed by all states as well as the federal government and stakeholders, in order to make intelligent decisions going forward.

The Federal Land Use Agency Role in Renewable and Transmission Development is Critical and Enhanced State-Federal Cooperation Must Continue

In my Congressional testimony earlier this year, I pointed out that in my experience, federal government agencies have often been a primary reason for significant delay in processing transmission line permits. It is almost impossible to build a line in the Western Interconnection without crossing federal land, often triggering the need for review under the National Environmental Policy Act – NEPA. It these circumstances, it is the CPUC's standard practice to sign memorandums of understanding (MOUs) with the federal agency that shares joint permitting responsibility. These MOUs include commitments to a detailed schedule of events. Nevertheless, in the past the federal agencies have routinely failed to meet these deadlines by multiple months, in one case causing an 18 month delay in the construction of a renewable resource transmission project.

To that end, I am encouraged by the issuance last week of the MOU among the nine federal agencies regarding transmission siting on federal lands. This is a major step forward and the designation of a single federal land use agency for transmission permitting purposes is very important. But I am concerned about at least one provision – the section that allows federal agencies 13 months as a normal timeframe to issue a decision after close of comments on draft environmental impact statements. This timeframe is three to four times longer than the standard we use at the CPUC. I hope there will be close consultation with states on the actual implementation of the MOU so modifications can be made if needed.

The State of California and the Bureau of Land Management (BLM) have also signed an MOU to jointly process solar power plant applications and California state agencies are working with BLM and the U.S. Fish and Wildlife Service (USFWS) to facilitate renewable energy development, while at the same time ensuring protection of California's unique desert ecosystems. We are establishing increasingly close and productive working relationships. But, given California's goal of 33% RPS, it will be extremely challenging to issue decisions on all projects in the permitting process, given the December 1, 2010 ARRA deadline.

Other significant challenges remain. At the CPUC, we have streamlined our transmission siting process, with significant emphasis on pre-application activities to ensure applications are complete when filed and our staff is familiar with the project. We encourage the federal land use agencies to continue to work with us in order to ensure permitting cases remain on schedule with full communication at all levels between state and federal permitting agencies.

Conclusion

Thank you for the opportunity to provide these comments. I look forward to further discussion of these issues.