

**Testimony of Commissioner Rachelle Chong of the  
California Public Utilities Commission  
Before the Subcommittee on Energy and Mineral Resources  
“Solar Energy Development on Federal Lands: The Road to Consensus”  
Palm Desert  
May 11, 2009**

I want to thank Chairman Costa and the members of the Subcommittee for the kind invitation to testify before you. At the California Public Utilities Commission (CPUC), we have been working hard since 2002 on implementing the state’s renewable energy goals. Our role is to establish rules governing the renewables portfolio standard (RPS) program for our regulated-utilities and to review contracts that our regulated utilities enter into for obtaining renewable energy. We also have the authority to permit new transmission lines, which are necessary to deliver this energy from the remote areas where renewable resources are often located.

California has set one of the most ambitious greenhouse gas and renewables goals in the country. The California investor-owned utilities are already mandated to provide 20% of their electricity from renewable energy sources by 2010. The Governor recently has adopted a further goal of 33% renewables by 2020. Our Air Resources Board has also identified 33% by 2020 as a key strategy for achieving California’s landmark goal of reducing statewide greenhouse gas emissions to 1990 levels by the year 2020. This is part of the State’s 2006 Global Warming Solutions Act, commonly referred to as AB 32.

Since our renewable program’s inception in 2002, and through 2008, the CPUC has approved 111 contracts for a total of 6,672 megawatts (MW) of all types of renewable energy (including solar). Of that amount, 13 of those approved contracts are for the delivery of at least 2,500 MW of solar thermal and centralized photovoltaic projects. In terms of *actual delivered* renewable energy, from 2003 through 2008, 870 MW of new renewable energy were installed and came online. Unfortunately, none of this *new* renewable energy that is being delivered comes from solar. We have not had a new commercial solar thermal plant built in California in 18 years, but the energy associated with the solar contracts that we have approved are targeted to be online and generating power within the next three years.

Solar energy is particularly valuable as a contributor to our renewable energy and greenhouse gas reduction goals, given its peaking capacity and ability to provide clean power to California on our hottest, sunniest days. We expect solar generation technologies to be significant contributors to our 33% renewables goal. In addition to the approved solar contracts, another 2,000 MW-worth of solar contracts are currently pending CPUC approval.

For these reasons, the CPUC views solar development, including on federal land, as critical to the achievement of California’s ambitious renewable energy and greenhouse gas reduction goals. California’s Renewable Energy Transmission Initiative (RETI)

identified over 90,000 MW of near-term solar potential in the state, much of it on federal lands. Delays or barriers in the permitting of solar generation facilities have real implications for California's ability to achieve its greenhouse gas goals. One analysis estimates that California's utilities might require 6,800 MW of in-state solar thermal power and 3,200 MW of new photovoltaic power to achieve our target of 33% renewables in 2020. To put this in perspective, only 354 MW of solar thermal generation are operating today in California, with only an additional 114 MW operating anywhere else in the world. If our estimates are correct, California has only 10 years in which to permit, finance, build, and fully operate the equivalent of **19 times** the state's current solar thermal generating capacity (and **15 times** the current worldwide solar thermal generating capacity).

The permitting, financing, and building of these solar projects is a complex process that requires substantial coordination among various agencies. As the agency responsible for permitting transmission infrastructure in California, we are acutely aware of the need for concurrent development of the transmission infrastructure needed to deliver that clean energy to customers. As you know, renewable resources are often located in areas that are far from the grid and load centers, and thus transmission lines are required to be built or upgraded.

At the CPUC, we recently approved the Sunrise Powerlink, which is expected to access at least 1,000 MW of renewable energy capacity in California's Imperial Valley. We also approved the first segments of the Tehachapi Renewable Transmission Project in 2007, and are now reviewing the later segments of that project, which would deliver approximately 4,500 MW of capacity from the wind-rich Tehachapi resource area into the Los Angeles basin. We look forward to working closely with BLM and other federal agencies on the development of these and other facilities located on federal land.

We understand that a lack of human and financial resources has contributed to federal permitting delays in recent years. We are encouraged, therefore, by recent announcements indicating a renewed fiscal commitment to renewable development, as expressed by the March 11th Secretarial Order from the Department of Interior establishing the development of renewable energy as a top priority. We are also pleased to see that there will be federal stimulus funds available to support streamlined environmental review in California. I applaud the Administration and Congress for their responsiveness in addressing delays in the permitting process. We are hopeful, too, that the resources will allow for timely and efficient collaboration between BLM and CPUC staff on joint state/federal environmental review of the transmission lines critical for renewables.

I would like now to sound a note of caution. Although a very valuable resource of clean energy, utility-scale solar power has environmental impacts, including large land requirements and potentially significant water usage. If we are to develop public lands with large-scale infrastructure – renewable or not – we should ensure that those lands are used in the most efficient and environmentally sensitive way possible.

We suggest, therefore, that BLM and other federal agencies work with the CPUC, the California Energy Commission, and publicly-owned utilities to determine how best to develop such lands. We should carefully consider whether and how such development might be concentrated in relatively small areas that maximize use of existing and planned transmission, contain high proportions of disturbed lands, and minimize cumulative environmental impacts.

This hearing is aptly sub-titled “The Road to Consensus,” and I want to stress the importance of involving local stakeholders in all of these decisions. I believe California’s Renewable Energy Transmission Initiative (RETI) may be useful to others as a model.

RETI was initiated primarily by the CPUC and the California Energy Commission, to address the need for more statewide planning in pursuit of our renewables goals. RETI is a consensus-based stakeholder process to identify the transmission needed to achieve California’s renewable energy and greenhouse gas reduction goals. RETI has engaged a diverse group of stakeholders and benefited greatly from the involvement to date of the BLM, the U.S. Forest Service, and the U.S. Armed Forces. Phase 1 of RETI was completed in December 2008 and focused on identifying zones in California that are expected to provide cost-competitive and environmentally preferable renewable resources. We are now in Phase 2A of RETI, which is focused on updated estimates of the generation potential in renewable zones throughout the state and a conceptual statewide transmission plan. A report on Phase 2A is expected to be complete early this summer. We hope that you will consider the work that RETI has done, as it may be useful for future designations of renewable energy zones. We look forward to the continued engagement of federal agencies in the RETI process.

We look forward to partnering with federal agencies to address the challenges and tremendous opportunities presented by solar development on federal lands in California. Thank you again for inviting me here. I am happy to answer any questions from Members of the Committee.