

**Comments of the Natural Resources Defense Council
On the May 7, 2013 Siting Lead Commissioner Workshop
2013 Integrated Energy Policy Report (IEPR)
Docket # 13-IEP-1
Submitted May 21, 2013**

The Natural Resources Defense Council (NRDC) is a national non-profit organization of lawyers, scientists and environmental specialists dedicated to protecting public health and the environment. Founded in 1970, NRDC serves more than a million members supporters and environmental activists with offices in New York, Washington, D.C, Los Angeles, San Francisco, Chicago and Beijing. More than 200,000 NRDC members reside in California.

These comments are supplemented by joint comments we filed with The Nature Conservancy.

Discussion of Environmental/Land Use Data for Scenarios/ Transmission Planning and Renewable Energy Project Database Issues

NRDC is a national leader in pioneering the use of geospatial environmental, land use and cultural resources data for renewable energy and transmission planning purposes. We helped develop the methodologies for the pioneering California Renewable Energy Transmission Initiative (RETI), Western Governors Association's Western Renewable Energy Zone (WREZ) process, and the Western Electricity Coordinating Council's (WECC) Regional Transmission Expansion Project (RTEP). We developed, in association with the National Audubon Society, a Google Earth application to assist planners and renewable energy and transmission developers in identifying and avoiding environmental resource conflicts across the Western U.S. We are members of a task force convened by the Western Governors Association to improve state permitting and siting policies to help close the gap between renewable project development timelines and transmission availability. We have advised and worked with the Department of Energy on Power Marketing Administration transmission issues, and the White House-initiated Rapid Response Team for Transmission's pre-application development process. We have supported efforts to solve generation and transmission siting challenges related to the BLM Solar Programmatic Environmental Impact Statement and the Desert Renewable Energy Conservation Plan.

Attached is a white paper on renewable energy project and transmission siting issues produced as part of a larger project to identify policies needed to realize an 80% penetration of renewable energy into the nation's grid by 2050. The report was developed in response to the National Renewable Energy Laboratory's 2012 report: *Renewable Electricity Futures Study*. The attached chapter was written by NRDC's Director of Western Transmission, Carl Zichella, and Johnathan Hladik of the Center for Rural Affairs in Nebraska. This chapter goes into great detail on many of the issues raised in the May 7, 2013 IEPR workshop.

NRDC's position on renewable project and transmission siting issues is that the early use of geospatial data to identify and avoid the risk of and environmental and cultural resource conflicts is essential for the rapid deployment of renewable energy resources and associated transmission. This rapid deployment is critical to state and national efforts to mitigate the effects of climate change on California

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reduce the costs and timeline of reliably integrating renewable energy into the grid, reduce the footprint of needed infrastructure improvements, and preserve adaptation options for biological resources by coupling development planning with large scale conservation: mitigation that matters.

Responses to questions posed at the workshop follow.

Q1: What type of environmental and land use data would be useful for the Energy Commission to continue gathering?

Discussion: The Energy Commission (CEC) has developed an enormous database of geospatial information on California protected landscapes and wildlife habitat. The wildlife data are still in need of more comprehensive collection and analysis, and a process employed for regular updating. The WECC-established Environmental Data Task Force (EDTF) has initiated, and WECC's Transmission Expansion Planning and Policy Committee have approved, a biennial "open season" process specifically to update and keep current environmental and cultural resources datasets. This process is intended to provide the best quality information possible for use in transmission planning studies and scenarios for both 10 and 20 year planning horizons. A newer area of analysis includes establishing the ability to prioritize locations for generation procurement based on their value to the system. Specifically, procurement of generation with variability that is uncorrelated with the variability of other resources in our portfolio (both in-state and out-of-state) can reduce the integration challenge on our system, reduce or in some cases eliminate the need for back-up balancing resources, saving consumers money, decreasing the cost of renewable energy and transmission and reducing the footprint for generation and transmission infrastructure. This is primarily accomplished through ensuring that resources procured are geographically diverse, which as experience in other parts of the country have shown, have enormous operational and financial benefits and reduce both renewable integration challenges and costs (especially as demonstrated in the Midwest Independent System Operator's service territory – see attached).

Recommendation: The CEC should periodically update and incorporate new datasets that become available into its environmental and cultural resource and provide for the opportunity of private entities to submit information that, meeting agency data quality standards, could be used to strengthen and refine the analytical value of the agencies geospatial information.

Recommendation: Incorporate information on generation shapes into environmental and land use data to identify areas with uncorrelated variability to resources already in the state's portfolio.

Q1.b. What enhancements to CEC data tracking and environmental reporting to CPUC would be helpful for scenario planning?

Discussion: Cultural resources data are not yet included in the scope of the IEPR, though cultural resources conflicts can slow or even stop generation and transmission projects. The Genesis project's \$825 million loan guarantee was put in jeopardy by a failure to identify cultural resource conflicts last year. The risk of encountering these conflicts needs to be part of the tracking process. As mentioned above, the geographic diversity benefits in and out of state should be tracked so that procurement

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decisions can take into account the generation value of resources with uncorrelated variability to resources in the portfolio.

Recommendation: Add cultural resources data to tracking and reporting. These may need to be represented in such a way to both provide a meaningful representation of the potential risk of conflict while protecting the locational confidentiality of sites that may be vulnerable to looting or vandalism.

Recommendation: Geographic diversity and variability data (based on weather forecasting and actual performance and meteorological data), both in-state and regional, should be included in scenario planning to anticipate system needs and avoid procuring unnecessary reserve capacity .

Q2: What sources of out-of-state renewable project data are available for the CEC's use?

- a. How can we access them?*
- b. What are some of the issues in working with other states' datasets (and renewable energy datasets in general)?*

Discussion: NRDC uses information from a variety of sources, but mainly from publicly available databases such as BLM's project development database, national laboratories such as NREL and LBNL, the WECC project Portal, which details information about all serious transmission projects in development; WECC environmental and cultural information are available on the WECC RTEP website, and a data reader being developed to aid with the interface. We also utilize work produced at universities including the University of Wyoming, University of California and Stanford University as well as industry publications such as SNL, Bloomberg and others. These generally have either narrative information or searchable databases that can be accessed by users. We do use some proprietary data as well. Some, like SNL are subscription services. Others, like wildlife data from NatureServe are available on a license basis.

Wildlife datasets being developed by the Western Governors Wildlife Council – the Crucial Habitat Assessment Tool (CHAT) – would be useful for understanding wildlife implications for out of state projects. These data are being integrated into the WECC environmental datasets as they are completed. Eventually data across the entire West will be included to create a regional decision support system that seeks to harmonize wildlife and habitat management across state borders.

Finally, cultural resource data will eventually be incorporated into the WECC EDTF datasets. Data quality, consistency and confidentiality issues are being considered and a transmission alternative comparison method is being produced. We expect this to be completed by the end of 2013.

Recommendation: Assess and where appropriate utilize WECC EDTF datasets to evaluate out of state generation and transmission projects, for both environmental and cultural resource conflicts.

Q3: What type of renewable energy metrics/reports are used and/or reported by your organization?

Discussion: NRDC tracks metric related to transitioning the economy to clean fuels as quickly as we can, consequently we track progress based on an analysis of:

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- Projects in development (generation and transmission)
 - By type and location
 - Development status
 - Procurement status
- Capacity approved
- Capacity installed
 - Large scale and distributed renewables
- Coal plant retirements
- Regional generation shape diversity
- Cultural resource types and locations (generally described locations)
- RPS compliance
- Transmission transfer capacity
- Miles of transmission approved or electrified
- Demand side resources (energy efficiency, demand response , etc.) made available
 - Capacity
 - Location

These data are compiled from both public and private sources, including CEC licensing and status sources, CPUC procurement decisions, WECC/EDTF dataset updates, State Historic Preservation Offices and associated federal and tribal agencies, as well as subscription services like SNL Financial and others.

Thank you for considering these comments for more information, please contact Carl Zichella, Director of Western Transmission, (916) 837-7127, czichella@nrdc.org

Respectfully submitted May 21, 2013

A handwritten signature in blue ink, reading "Carl Zichella". The signature is fluid and cursive, with the first name "Carl" and last name "Zichella" clearly distinguishable.

Carl Zichella
Director of Western Transmission