



Comments of NRDC to the CAISO 2010-2011 Transmission Plan  
May 18, 2011  
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Introduction:

NRDC is a national environmental advocacy organization with approximately 1.3 million members and on-line activists, some 250,000 of whom live in California. NRDC has a long history of efforts to protect and conserve the nation's natural resources, including in particular the nation's air, water and lands and resources managed by federal agencies. NRDC also actively promotes the increased use of energy efficiency and renewable energy sources to meet America's energy needs both at the national level and in various states, including California. And because we also recognize that some new transmission will be needed in order to significantly increase our use of renewable energy, we have engaged in transmission planning and policy making over the last several years. For example, we participated intensively in California's trail blazing Renewable Energy Transmission Initiative which developed the first renewable energy zone and transmission plan to incorporate environmental and economic values concurrently. NRDC staff has participated as stakeholders in the Western Governors Association's Western Renewable Energy Zone Process, California Transmission Planning Group, and currently are engaged in the Western Electricity Coordinating Council's (WECC) Regional Transmission Expansion Planning process. Our director of western transmission serves as environmental stakeholder on WECC's Transmission Expansion Planning and Policy Committee (TEPPC). We also participate in regional transmission planning in the Eastern Interconnection.

NRDC believes that the goals of increased reliance on renewables and protection of our nation's unique and sensitive places are not necessarily in conflict and that prudent transmission policy should consider environmental issues early in the planning process.

Comment: A Central Valley transmission upgrade would open disturbed lands and bolster reliability and reduce fossil back-up needs for renewables across the CAISO balancing area authorities (BAAs). Given environmental, reliability and avoided fossil back-up benefits (cost savings and avoided air pollution from peaking facilities); such a line (Midway-Gregg or a similar configuration) should be considered a high priority improvement. The ISO Draft 2011 transmission plan recognizes the environmental importance of this line in terms of opening disturbed lands capable of rapid permitting and development as well as reducing land use conflicts for large scale developments proposed for more sensitive areas, but defers consideration of this line to a future planning cycle. But delaying the analysis of this line could hinder the development of projects proposed throughout the Central Valley.

In addition, the approach taken by CAISO to identify category 1 and category 2 lines was basically sound but appears to have undervalued the reliability and balancing advantages to the

overall grid of a Central Valley transmission line opening selenium- contaminated and/or retired agricultural disturbed lands. These improvements were rated category 2 rather than category 1, in part because of a perceived lack of demonstrated commercial interest in these areas. In the last few months or so this situation has significantly changed, with commercial interest being shown by generation and development companies of more than 1500 Megawatts of nameplate capacity (Westlands Solar Park and Maricopa Sun projects) as well as at least two load serving entities (LSEs) in purchasing some of the power from this area. One generator, Agile Energy, has submitted a 600 Mw interconnection request to CAISO. Another has been submitted for an additional 200 Mw. In addition, the Sacramento Municipal Utilities District (SMUD), though not a CAISO BAA, has expressed formal support for a Central Valley solar development at the proposed Westlands Solar Park and interest in future purchases. As some SMUD transmission facilities are jointly controlled with CAISO now, the added benefit of balancing generation across investor and public load serving entities could conceivably be expanded, with substantial reliability benefits for California customers in both BAAs being recognized. The lack of balancing capability between public and investor-owned LSEs is a major reliability and environmental weakness in the state's transmission system. This failure has led to situations where investor-owned utilities could not be assisted by neighboring public BAAs in emergency situations (as in the case of the 2003 San Diego County fires) and in duplicative transmission being proposed or constructed, with proportionately magnified environmental impacts and unnecessary ratepayer costs. As the RETI analysis showed, proposed transmission upgrades in the Imperial County CREZ suffered worse environmental and economic scores because of this duplication. CAISO plans should acknowledge duplication is a problem and avoid it where possible. Even though CAISO will not plan facilities in non-CAISO BAAs, the advantage of improvements that could foster voluntary inter-BAA coordination should be included and appropriately valued. This is especially true when considering the Integration of variable renewable energy resources, the purpose of which is to reduce carbon dioxide emissions from the electricity sector. Avoiding new – even very efficient – fossil generation for balancing is a significant climate mitigation benefit in line with achieving state goals.

Finally, as the conceptual plan stated regarding Central Valley upgrades:

*Another area where the ISO expects upgrades to be needed is the San Joaquin Valley area. Integration of intermittent resources into the ISO BAA operations is likely to drive increased utilization of the existing pumped storage facilities in California. The largest of these is the Helms pumped storage facility located in the Fresno area. However, transmission constraints in the San Joaquin Valley area transmission system limit the availability of the Helms facility primarily due to south to north transmission flow constraints. The ISO is currently performing renewable integration studies that could confirm the need to increase the utilization of Helms, and this is likely to drive a need for transmission improvements in this area. The need for transmission solutions to support Helms pumped storage availability is also part of this conceptual statewide plan.*

This statement acknowledges the value of the Helms pumped storage facility to integration of variable renewable resources. Another consideration should be the ability of using these upgrades to balance Central Valley solar resources with Tehachapi wind, Imperial geothermal and Mojave solar, as well as with Helms; further reducing the need for fossil backup. NRDC believes that this larger balancing function has not been adequately valued in the plan.

For all the above reasons NRDC respectfully requests that the statewide plan study Central Valley transmission upgrades from as soon as possible and include them as high priorities in the current plan. NRDC also commends improvements to the CAISO system envisioned to access out-of state renewables, Imperial County renewable generation, and which would make Tehachapi wind resources available to the Los Angeles Department of Water and Power. These are steps in the right direction to broadening the ability of CAISO BAAs to balance more effectively with their public power neighbors

Thank you for your consideration of these comments.

