



California ISO
Your Link to Power

California Independent
System Operator Corporation

Transmission Planning Need Assessments: Methods and Issues

Prepared by

David Withrow

Sr. Market & Product Economist

Market Surveillance Committee Meeting

May 31, 2006

Problem Statement

Some transmission facilities that are necessary for renewable generation may not be constructed.

- **Upgrades that are not “network facilities” are not justifiable for reliability or economic reasons**
- **Thus, renewable generators must pay for transmission into remote regions**
- **Potential barrier for wind and solar resources**
- **Potential impact on 20% RPS target**

Recent Regulatory Developments

- **2005 SCE petition to FERC for declaratory order related to Tehachapi wind projects**
 - Sought creation of a new transmission category that would allow rolled-in rate treatment
 - FERC denied request and maintained traditional cost recovery treatment for generation-tie facilities.

- **CPUC approval for cost recovery of transmission needed to meet RPS goals.**



How to promote transmission facilities that are necessary for renewable generation?

- **CAISO is exploring new evaluation criteria for certain transmission projects that currently are not considered “network” facilities or, while network facilities, do not necessarily fall under the traditional reliability and economic justifications for transmission upgrades.**
- **Possible new “third category” of transmission for upgrades needed for renewable energy supply.**
- **CAISO to seek policy guidance from FERC through a petition for a declaratory order.**

Issues to resolve for a third category of transmission targeted toward renewables

- **High-voltage facilities, expected to be placed under CAISO operational control – how to define non-network facilities?**
- **Built in an area with significant potential for renewable resources – how to determine?**
- **Transmission that provides significant benefits throughout the CAISO grid as a trunk line – how to measure?**
- **Cost Recovery / allocation mechanism – who pays?**

Request for MSC Opinion and Guidance:

- **How to evaluate and justify transmission facilities needed for renewables?**
 - remote areas
 - significant potential for development of renewables

- **What cost recovery mechanism might apply to these transmission facilities needed for renewables?**
 - Costs for network facilities justified by economically supporting development of renewable energy resources (traditional network facilities are rolled-in to the wholesale rates through the CAISO-wide “Transmission Access Charge” (TAC))
 - Costs for high voltage trunk lines that interconnect renewable resource development areas with the grid (traditional generation interconnection costs are paid by the generator)