



TRANSMISSION AGENCY OF NORTHERN CALIFORNIA

P.O. Box 15129, Sacramento, CA 95851-0129 (916) 852-1673

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Office of Electricity Delivery
and Energy Reliability
Room 8H-033
U.S. Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

The Transmission Agency of Northern California (TANC) is pleased to submit its comments to the United States Department of Energy (DOE) related to its West-Wide Corridor Programmatic Environmental Impact Study, Preliminary Draft Map of Potential Energy Corridors on Federal Land. TANC participated in DOE's public scoping meeting held in Sacramento, California, on November 1, 2005, and submitted initial comments on November 28, 2005. We look forward to continuing to participate in this process in the future to identify needed energy corridors in the West. If there are any questions with respect to these comments, please do not hesitate to contact me at (916) 852-1673.

Sincerely,

A handwritten signature in black ink that reads "Bryan W. Griess". The signature is written in a cursive style.

Bryan W. Griess
Assistant Executive Director

Enclosure

**COMMENTS OF THE
TRANSMISSION AGENCY OF NORTHERN CALIFORNIA
ON THE AGENCIES'
PRELIMINARY DRAFT ENERGY CORRIDOR MAP**

The Transmission Agency of Northern California (TANC) has reviewed the U.S. Department of Energy's, Department of Interior's, Department of Agriculture's and Department of Defense's (collectively, "the Agencies") Preliminary Draft Energy Corridor Map (Draft Corridor Map) and submits the following comments on the Draft Corridor Map.

TANC strongly believes that it is critical for the Agencies to adhere to Section 368(d) of the Energy Policy Act of 2005 that clearly delineates that the need for new/upgraded electric transmission and distribution facilities will:

1. improve reliability;
2. relieve congestion; and
3. enhance the electric delivery capabilities of the national grid.

Therefore, TANC believes that the Agencies should re-examine the need for a Northern California to Eastern Nevada energy corridor, which was previously proposed by TANC and several other parties in our earlier comments. A site map showing a general corridor routing has been included as Attachment 1. TANC believes that such a northern California-Nevada corridor accomplishes the Energy Policy Act's three specific objectives, whereas other alternatives that were shown on the Agencies' Draft Corridor Map are either not feasible or do not meet the three objectives.

Objective 1 – Improve Reliability

The western United States and California energy crises of 2000 and 2001 were caused by a lack of sufficient generation and transmission infrastructure, among other market problems. Despite significant electric generation additions within the state over the past five years, California's electricity needs have continued to grow and new power plants within California are not keeping up with load growth. In addition, old, inefficient, gas-fired generation has been kept operational to help California maintain grid reliability.

California is heavily dependent upon the import of electricity from both the Pacific Northwest (PNW) and the desert Southwest (DSW). As the western transmission corridors have developed over time, the PNW energy is primarily delivered into northern California over three 500-kV transmission lines known as the California-Oregon Intertie (COI). The COI can optimally deliver 4,800 MW of capacity and associated energy to northern California. During winter months, the flow does shift and California supplies capacity and energy to the winter needs of the PNW. Additionally, a fourth high voltage line, known as the Alturas Project line connects the PNW with central western Nevada. The line is predominantly used to deliver PNW energy to the Reno region; however, no primary cross tie transmission corridors extend between the Reno region and central California. A very similar arrangement exists between southern California and the DSW. Additionally, a Point-to-Point High Voltage Direct Current (DC) line connects the PNW with southern California.

California's ability to reliably meet its electric needs is completely dependent on these transmission corridors being fully functional throughout the year since generation internal to the state cannot meet the peak demands. As the state and its electricity requirement continue to grow, the demand on the existing transmission interties has also continued to grow. Unfortunately, new high voltage transmission interties have not been built to keep up with California's growing electricity demand. Instead, the utilities have implemented various sophisticated procedures, known as nomograms, to optimize import capacity within accepted regional reliability standards.

In its previous comments, TANC attempted to address the need for additional high-voltage transmission corridors in northern California to ensure future reliable delivery of electricity to energy consumers in California and the West. The Draft Corridor Map does not provide a viable new corridor into Northern California to help improve reliability. The only corridors shown on the Draft Corridor Map into Northern California are the existing Alturas Project Corridor and what appears to be a corridor paralleling Interstate 80. TANC believes that both of these proposed corridors will have find difficulty meeting the objectives of improving the reliability of the California and Western energy systems. The problems with the Alturas Corridor are discussed in the next section, and the proposed Interstate 80 Corridor, while potentially providing reliability advantages, has previously proven to have numerous engineering, environmental, and other siting challenges. Therefore, TANC encourages the Agencies to reconsider a trans-Sierra corridor through northeastern California as was recommended by TANC and several other parties and included in the DOE Western Regional Corridor Study of 1986. (Please see suggested corridor routing map – Attachment 1.)

Relieve Congestion

One of the problems plaguing the electrical system in the western United States is transmission congestion. There are several locations or "paths" within the grid where additional transfers cannot occur because of congestion. A major path for providing electrical energy transfers between California and the Pacific Northwest is at the California-Oregon Border (COB).

As previously noted, there are three major (500-kV) transmission lines and related facilities (the COI) running from COB into California and the PNW. At key times these transmission facilities are fully loaded and no additional energy is able to flow into California along this path. While TANC is actively pursuing a 300 MW upgrade of these facilities, additional, new transmission facilities are needed to allow for increased imports into California, which is why TANC continues to strongly advocate an east-west transmission corridor between California-Nevada and beyond (discussed in greater detail below).

The Draft Corridor Map suggests the Alturas Corridor from the Reno, Nevada area to the COB as a potential corridor. Unfortunately, this corridor **will not** provide any benefit to the growing energy requirements of California. In fact, it is highly unlikely that additional electric transmission facilities would be added within this corridor because of the current congestion occurring at the COB. It is critical that new electric

transmission be added to the western grid that relieves congestion and promotes the development of additional generation resources. TANC believes that this can best be accomplished with a new east-west transmission corridor between northern California and northern Nevada (and potentially beyond to Idaho/Wyoming) that interconnects to the California grid south of COB.

Enhance Delivery Capabilities of the National Grid

Currently, there is a tremendous amount of discussion within the western United States regarding the opportunities for significant renewable energy (wind and geothermal) and clean coal projects in Nevada, Montana, Utah, and Wyoming. California is a leader in state mandates for renewable portfolio standards. It would be convenient if the demand for these unlocked natural resources were located near the energy supplies. Unfortunately, that is not the case and the electric need or demand is primarily located on the West Coast (mainly California), while untapped renewable resources exist in Nevada and states further east. Therefore, infrastructure, such as high-voltage transmission facilities, must be developed and constructed that allows for the transfer of renewable energy from where it is produced to the demand centers in California where it is needed. This provides for the efficient use and development of the nation's electrical grid, but more importantly provides for the growth and prosperity of the American economy.

However, the renewable and clean-coal projects that show great promise in the interior West will not be developed if the electricity cannot be sent to the customers in California. Therefore, TANC again implores the Agencies to designate a workable east-west corridor between Northern California and Northern Nevada and beyond.

Northern Sierra Corridor

As discussed above, an east-west corridor between California and Nevada and the interior West will improve the reliability of the western grid by allowing more energy to flow into California; relieve existing (and head-off future) congestion by creating a new transmission "path" into California rather than further congesting the path at the COB; and enhance the delivery capability of the national grid by providing for the interconnection of planned or identified wind, geothermal, and clean-coal generation projects with the California load centers.

TANC has identified a Northern Sierra Corridor that would provide this critical east-west interconnection. TANC understands that this or any corridor will require a fair amount of flexibility to avoid and engineer around environmental and urban constraints. TANC has participated in the public comment forums hosted by the Bureau of Land Management in Northern California. Along with comments at the BLM public meetings, TANC will be providing BLM with written comments to the draft Resource Management Plans (RMP) of Eagle Lake, Alturas, and Surprise Offices that will address the same comments provided herein. TANC found the BLM public meetings a very useful forum to help develop an understanding of the need for an additional east-west corridor in addition to the existing north-south Alturas Project. TANC, as the lead agency for the development of a 339-mile transmission corridor from the California-Oregon border to central California, is very familiar with working with federal and state agencies in the development of needed transmission corridors. We look forward to

working with the Agencies on the corridor designation and the programmatic environmental impact study.

More importantly TANC is moving forward with its plans to develop new high voltage transmission facilities between California and the interior West. Transmission facilities that will be critical for meeting the energy needs of California consumers, increasing the reliability of the western electric grid, relieving congestion, and enhancing the development of diverse (renewable and clean-coal) energy sources must be built. As a not-for-profit agency, TANC strives to serve the needs of its member cities, irrigation districts and public utility districts.

TANC Overview

TANC is a California joint exercise of powers agency that provides electric transmission facilities and services to its Members: the California Cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Redding, Roseville, Santa Clara, and Ukiah; the Sacramento Municipal Utility District; the Modesto Irrigation District; and the Turlock Irrigation District. The Plumas-Sierra Rural Electric Cooperative is an associate member of TANC. TANC is the largest Participant in, and the Project Manager of, the California-Oregon Transmission Project (COTP), a \$430 million, 339 mile, 500-kV transmission project extending from just north of the California-Oregon border to central California.

In addition, TANC also has an allocation of 300 MW of firm bi-directional service from the Pacific Gas and Electric Company (PG&E) pursuant to the Principles for Tesla-Midway Transmission Service reflected in PG&E FERC Rate Schedule No. 143 (SOTP). TANC receives 300 MW of transmission service across California's Path 15 under the SOTP. TANC has previously explored additional transmission projects, including a Path 15 upgrade project. The Western Area Power Administration, in developing and constructing its Path 15 Upgrade Project, capitalized on environmental activities previously undertaken by TANC for Path 15.

Attachment 1 – Northern California Transmission Corridor map

TANC's Proposed
Transmission Corridor

EIKO

Reno

Carson City

Sacramento

San Francisco

