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March 12, 2009

PLANNING COORDINATION COMMITTEE
TECHNICAL STUDIES SUBCOMMITTEE

Subject: Acceptance of Regional Planning Report for the TANC Transmission Program

On January 4, 2008, the Transmission Agency of Northern California (TANC) notified the Western Electricity Coordinating Council (WECC) that it was initiating the WECC Regional Planning Review Process for the TANC Transmission Program (TTP). The TTP is planned to consist of four Program Elements, as follows:

- Program Element Zeta North which would include:
 - Two 500-kV lines extending from a new 500-kV substation (Raven) located near Ravendale in Northeastern California to the proposed Zeta 1 Substation (near Round Mountain),
 - A 500-kV line from the Zeta 1 Substation to the existing Olinda 500/230-kV Substation, and
 - A 500-kV tie between the Zeta 1 Substation and the existing Round Mountain 500/230-kV Substation.
- Program Element Zeta South which would include a new 500-kV line extending from the Olinda Substation to a new 500/230-kV substation (Tracy 2) in the proximity of the existing Tracy Substation and would include a new 500/230-kV substation (Dillard Road) in the Sacramento area.
- Program Element Alpha which would include:
 - A 500-kV line between the Tracy 2 Substation and a new 500/230-kV substation (Alpha 4) located near Oakdale, CA, and
 - Two double-circuit 230-kV lines that would extend from the Alpha 4 Substation into the service areas of the Modesto Irrigation District and the Turlock Irrigation District.
 - The interconnection of the New Melones hydroelectric project with the Alpha 4 Substation.
- Program Element Delta which would include double-circuit 230-kV facilities extending from the Tracy 2 and Tesla Substations into the San Francisco Bay Area.

Subsequently, TANC formed a Sub-Regional Planning Project Review Group (Review Group) for the TTP. The first meeting of the Review Group was held in March of 2008 and subsequent meetings were held in June, September, October, and December of 2008. There were approximately forty personnel (representing seventeen different entities) on the correspondence list for the Review Group. Review Group-related activities included:

- Coordination of assumptions to be used in the various base cases developed for the Sub-Regional planning studies.
- Preparation of numerous powerflow base cases modeling both pre- and post-TTP conditions.

- Performing technical studies on the above base cases.
- Discussing and concurring with the results of the above studies.
- Developing the pertinent Regional Planning Report.

In addition to the Review Group activities discussed above, TANC has taken several other steps to satisfy the sub-regional planning requirements of the Federal Energy Regulatory Commission (FERC), the WECC, and WestConnect. These have included discussions with the pertinent parties in venues other than the Review Group.

The Regional Planning Project Report was provided to the members of the PCC and the Technical Studies Subcommittee on January 26, 2009. A period of 30 days was provided to solicit comments on the report. During this comment period the PCC members were provided the opportunity to review and comment on the project conformity with the Regional Planning Guidelines. TANC states that they did not receive any comments during this time.

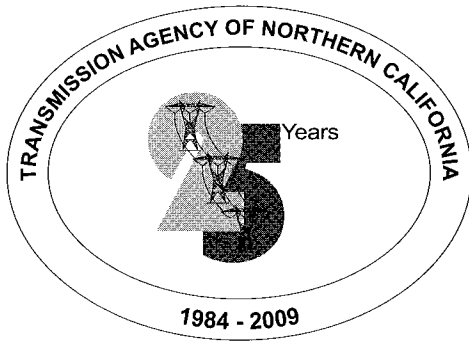
I hereby provide notice of PCC acceptance of the Regional Planning Report for the TANC Transmission Program.

Sincerely,

Brian Silverstein

Brian Silverstein

cc: Kent Bolton, WECC
Tom Green, TSS Chair
Bryan Griess, TANC



TRANSMISSION AGENCY OF NORTHERN CALIFORNIA

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

January 23, 2009

Planning Coordination Committee
Technical Studies Subcommittee

Subject: Regional Planning Project Review – TANC Transmission Program

Attached is a report which documents the steps taken by the Transmission Agency of Northern California (TANC) to conform with the Regional Planning guidelines as described in the Western Electricity Coordinating Council's (WECC) "Overview of Policies and Procedures for Regional Planning Project Review, Project Rating Review, and Progress Reports" (April 2005) and as they relate to the proposed TANC Transmission Program (TTP).

As discussed in the attached report the TTP will consist of four Program Elements, each of which includes several components. These four Program Elements are as follows:

- Program Element Zeta North would include:
 - Two 500-kV lines extending from a new 500-kV substation (Raven) located near Ravendale in Northeastern California to the proposed Zeta 1 Substation (near Round Mountain);
 - A 500-kV line from the Zeta 1 Substation to the existing Olinda 500/230-kV Substation; and
 - A 500-kV tie between the Zeta 1 Substation and the existing Round Mountain 500/230-kV Substation.
- Program Element Zeta South would include a new 500-kV line extending from the Olinda Substation to a new 500/230-kV substation (Tracy 2) in the proximity of the existing Tracy Substation and would include a new 500/230-kV substation in the Sacramento area.

- Program Element Alpha would include:
 - A 500-kV line between the Tracy 2 Substation and a new 500/230-kV substation (Alpha 4) located near Oakdale, CA;
 - Two double-circuit 230-kV lines that would extend from the Alpha 4 Substation into the service areas of the Modesto Irrigation District and the Turlock Irrigation District; and
 - The interconnection of the New Melones hydroelectric project with the Alpha 4 Substation.
- Program Element Delta would include double-circuit 230-kV facilities extending from the Tracy 2 and Tesla Substations into the San Francisco Bay Area.

The regional planning process for the TPP was initiated on January 4, 2008, when TANC notified the Planning Coordination Committee (PCC), the Technical Studies Subcommittee (TSS), and the members of WestConnect of its intent to form a Sub-Regional Planning Project Review Group (Review Group) for the TTP. The first meeting of the Review Group was held in March 2008 and subsequent meetings were held in June, September, October, and December of the same year. As noted in the attached report, there are approximately 40 personnel (representing 17 different entities) on the correspondence list for the Review Group.

In addition to the Review Group activities discussed in the attached report, TANC has taken several other steps to satisfy the sub-regional planning requirements of the Federal Energy Regulatory Commission (FERC), WECC, and WestConnect. Specifically, TANC has:

- Discussed the TTP (and the results of TTP-related studies) with the California ISO, Pacific Gas & Electric, the Western Area Power Administration, the TANC Members, FERC, and the California Energy Commission (CEC) in venues other than the Review Group
- Discussed the TTP (and the results of TTP-related studies) with WestConnect and provided information on the TTP to WestConnect for inclusion in WestConnect's 2007 and 2008 transmission plans and in the WestConnect planning map which depicts the various projects being proposed by the WestConnect members
- Presented information on the TTP to the Renewable Energy Transmission Initiative (RETI) and Regional Integration of Renewables (RIR) work groups in California and worked with both groups to assure that the TTP facilities are included in their analyses

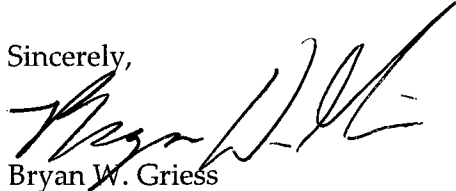
Technical Studies Subcommittee

January 23, 2009

Page 3 of 3

TANC requests that the PCC approve the attached report as provided for in WECC's "Overview of Policies and Procedures for Regional Planning Project Review, Project Rating Review, and Progress Reports."

Sincerely,

A handwritten signature in black ink, appearing to read "Bryan W. Griess", written over a horizontal line.

Bryan W. Griess

Assistant General Manager

Enclosure

**TRANSMISSION AGENCY
OF NORTHERN CALIFORNIA**

**TANC TRANSMISSION PROGRAM
WECC REGIONAL PLANNING REPORT**

**FINAL REPORT
JANUARY 21, 2009**

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EXECUTIVE SUMMARY

In the fall of 2005 the Transmission Agency of Northern California (TANC) initiated discussions with various stakeholders regarding the development of new transmission facilities in Northern California which would, among other things, enhance the operational reliability and flexibility of the electric system in Northern California while providing increased access to potential renewable resources. As a result of these discussions (and related technical and environmental assessments) TANC has identified proposed facilities (the TANC Transmission Program or TTP) which would meet the above goals. These facilities consist of four Program Elements, each of which includes several components. These four Program Elements are as follows:

- Program Element Zeta North which would include:
 - Two 500-kV lines extending from a new 500-kV substation (Raven) located near Ravendale in Northeastern California to the proposed Zeta 1 Substation (near Round Mountain),
 - A 500-kV line¹ from the Zeta 1 Substation to the existing Olinda 500/230-kV Substation, and
 - A 500-kV tie between the Zeta 1 Substation and the existing Round Mountain 500/230-kV Substation.
- Program Element Zeta South which would include a new 500-kV line¹ extending from the Olinda Substation to a new 500/230-kV substation (Tracy 2) in the proximity of the existing Tracy Substation and would include a new 500/230-kV substation (Dillard Road) in the Sacramento area.
- Program Element Alpha which would include:
 - A 500-kV line¹ between the Tracy 2 Substation and a new 500/230-kV substation (Alpha 4) located near Oakdale, CA, and
 - Two double-circuit 230-kV lines that would extend from the Alpha 4 Substation into the service areas of the Modesto Irrigation District and the Turlock Irrigation District.
- Program Element Delta which would include a double-circuit 230-kV line extending from the Tracy 2 Substation into the San Francisco Bay Area.

Subsequently, in January of 2008, TANC notified the members of the Western Electricity Coordinating Council (WECC) and the members of WestConnect of its intent to form a Sub-Regional Planning Project Review Group (Review Group) for the

¹ TANC will attempt to obtain the necessary permits to allow at least portions of these lines to be developed as double-circuit facilities.

TTP (refer to Appendix A). The first meeting of the Review Group was held in March of 2008 and subsequent meetings were held in June, September, October, and December of 2008. At the present time there are approximately forty personnel (representing seventeen different entities) on the correspondence list for the Review Group (refer to Appendix B). Review Group-related activities have included:

- Preparation of a study plan for the studies to be undertaken.
- Coordination of assumptions to be used in the various base cases developed for the Sub-Regional planning studies.
- Preparation of “reference” powerflow base cases modeling both pre- and post-TTP conditions.
- Preparation of “sensitivity” powerflow base cases modeling both pre- and post-TTP conditions with:
 - Three additional levels of renewable generation in the California ISO’s (CaISO) interconnection queue for which interconnection agreements have not yet been signed.
 - The proposed Central California Clean Energy Transmission Project (C3ETP).
 - A potential “joint project” consisting of certain elements of the TTP and of the Canada/Pacific Northwest-N. California Transmission Project (CNC) being proposed by Pacific Gas & Electric (PG&E).
- Performing technical studies on the above base cases.
- Discussing and concurring with the results of the above studies.

In addition to the above, TANC has worked with NV Energy to develop powerflow cases modeling an interconnection between the TTP and the NV Energy system in the proximity of the proposed Raven substation. Studies on these cases have been initiated and will be discussed with NV Energy and the balance of the Review Group when they are completed.

In addition to the Review Group activities discussed above, TANC has taken several other steps to satisfy the sub-regional planning requirements of the Federal Energy Regulatory Commission (FERC), the WECC, and WestConnect. Specifically TANC has:

- Discussed the TTP (and the results of TTP-related studies) with the CaISO, Pacific Gas & Electric, the Western Area Power Administration, the TANC Members, the FERC, and the California Energy Commission (CEC) in venues other than the Review Group.
- Discussed the TTP (and the results of TTP-related studies) with WestConnect and provided information on the TTP to WestConnect such that it could be included in WestConnect’s 2007 and 2008 transmission plans and in the WestConnect planning

map which depicts the various projects being proposed by the WestConnect members.

- Presented information on the TTP to the Renewable Energy Transmission Initiative (RETI) and Regional Integration of Renewables (RIR) work groups in California and worked with both groups to assure that the TTP facilities are included in their analyses.

OBJECTIVES

TANC's objectives in forming the TTP Review Group included meeting the sub-regional planning requirements of the FERC, WECC, and WestConnect. This was accomplished by:

- Taking neighboring utility plans into account.
- Coordinating with others to identify regional or sub-regional opportunities, benefits, and impacts.
- Considering the joint use of transmission corridor uses and other potential efficiencies.
- Considering approaches to use in improving access to existing/planned resources while minimizing impacts on existing system.
- Developing facilities that, as a minimum, do not increase physical and operational constraints on the system.

The purpose of this report is to discuss TANC's sub-regional planning activities related to the TTP and to describe how these activities satisfy the necessary components of the WECC's Regional Planning ("Phase 0") requirements and the objectives of FERC's Order 890.

BACKGROUND

In the fall of 2005 TANC initiated discussions with various stakeholders regarding the development of new transmission facilities in Northern California which would:

- Enhance the operational reliability of the overall electric system in Northern California,
- Increase potential imports/exports among neighboring utilities,
- Increase the operational reliability of the Sacramento Municipal Utility District (SMUD) Balancing Authority (BA) and the Turlock Irrigation District (TID) BA,
- Provide increased access to potential renewable resources,
- Allow for non-CaISO loads and resources which are presently interconnected with transmission facilities controlled by the CaISO to be interconnected directly with the SMUD BA,

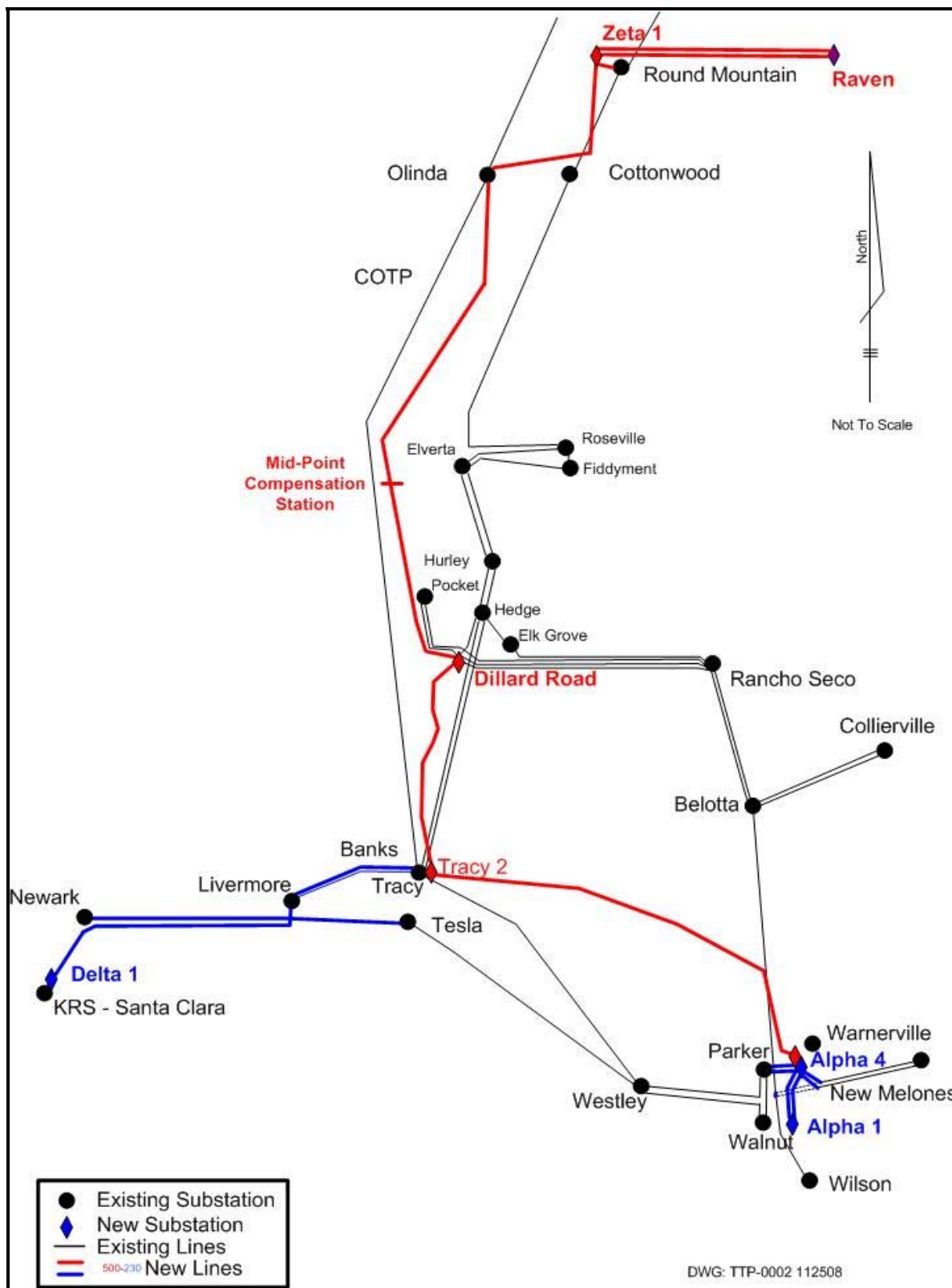
- Reduce the transmission-related costs for the TANC Members, and
- Increase the load serving capability of the TANC Member systems.

As a result of these discussions (and related technical and environmental assessments) TANC and its participating Members have identified proposed facilities (the TANC Transmission Program or TTP) which would meet the above goals and which would contain four Program Elements, as follows:

- Program Element Zeta North which would include:
 - Two 500-kV lines extending from Northeastern California (near Ravendale) to the proposed Zeta 1 Substation (near Round Mountain),
 - A 500-kV line from the Zeta 1 Substation to the existing Olinda 500/230-kV Substation, and
 - A 500-kV tie between the Zeta 1 Substation and the existing Round Mountain 500/230-kV Substation.
- Program Element Zeta South which would include a new 500-kV line extending from the Olinda Substation to a new 500/230-kV substation (Tracy 2) in the proximity of the existing Tracy Substation and would include a new 500/230-kV substation (Dillard Road) in the Sacramento area.
- Program Element Alpha which would include:
 - A 500-kV line between the Tracy 2 Substation and a new 500/230-kV substation (Alpha 4) located near Oakdale, CA, and
 - Two double-circuit 230-kV lines that would extend from the Alpha 4 Substation into the service areas of the Modesto Irrigation District and the Turlock Irrigation District.
- Program Element Delta which would include 230-kV facilities extending from the Tracy 2 Substation into the San Francisco Bay Area.

These facilities are depicted in Figure 1.

**FIGURE 1
TANC TRANSMISSION PROGRAM**



Subsequently, in January of 2008, TANC formed a Sub-Regional Planning Project Review Group (Review Group) for the TTP. The first meeting of the Review Group was held in Sacramento in March and subsequent meetings were held in June, September, October, and December of 2008. Parties that have been actively participating in the Review Group activities include:

- The participating TANC Members, as follows:
 - Modesto Irrigation District (MID),
 - The City of Redding (Redding),
 - SMUD,
 - Silicon Valley Power (SVP), and
 - TID
- Bonneville Power Administration (BPA)
- Western Area Power Administration (Western)
- PG&E
- CaISO
- NV Energy (Sierra Pacific Power)
- United States Bureau of Reclamation (USBR)
- California Department of Water Resources (CDWR)
- The Bay Area Municipal Utilities (including Palo Alto, Alameda, and the City and County of San Francisco)

Specific Review Group-related activities have included:

- Preparing a study plan for the Review Group activities and updating it to reflect interactions with the Group.
- Corresponding with the members of the Review Group regarding the assumptions used in the various base cases that were developed for the Sub-Regional planning effort.
- Preparing the following base cases:
 - Pre- and post-TTP base cases which model 2014 summer peak loads and the CaISO-queued renewable generation for which interconnection agreements have been signed.²

² So as to stress the system these powerflow cases modeled COI transfers at 4,800 MW; northern California hydro generation at 87% of installed capacity; and Path 26 transfers at 4,000 MW. All of these values are higher than the amounts permitted by existing operating nomograms. Additional studies based on existing nomograms will be performed to more fully demonstrate project benefits.

- Pre- and post-TTP cases modeling three additional levels of CaISO-queued renewable generation for which interconnection agreements have not yet been signed.²
- Pre- and post-TTP cases modeling the proposed C3ETP.³
- Potential “joint project” cases modeling certain elements of the TTP and PG&E’s proposed CNC project.²
- Performing technical studies on the above base cases.
- Discussing and concurring with the results of the above studies.

In addition to the above, TANC has worked with NV Energy to develop powerflow cases² modeling an interconnection between the TTP and the NV Energy system in the proximity of the proposed Raven substation. Studies on these cases have been initiated and will be discussed with NV Energy and the balance of the Review Group when they are completed.

COMPLIANCE WITH REGIONAL PLANNING GUIDELINES

This section provides information in response to each of the WECC Regional Planning Guidelines with respect to the TTP. The Regional Planning Guidelines themselves are presented in bold, italic text and are followed by information on how TANC has addressed each Guideline.

1. *Take multiple project needs and plans into account, including identified utilities’ and non-utilities’ future needs, environmental and other stakeholder interests.*

The State of California has enacted renewable portfolio standards which require that all utilities, including the TANC Members, satisfy at least 20% of their load with energy generated from renewable resources by the year 2010. The 2005 Energy Action Plan recommended a goal of 33% by 2020 and, in November of 2008, Governor Schwarzenegger signed Executive Order S-14-08 which required that all utilities in the State meet the “33% by 2020” goal. In addition, California has enacted legislation that would reduce green house gas emissions.

The TTP will provide the TANC Members (and other participating parties) with increased access to incremental renewable resources in Northeastern California and, potentially, in Northern Nevada and the Pacific Northwest. The potential for renewable resources in Northeastern California and Northern Nevada is significant. For example:

³ These cases modeled high south-to-north flows on Paths 15 and 26.

- The CEC has forecasted that the technical potential for renewable resources (wind, geothermal, and solar) in Northeastern California could approach 11,000 MW while the potential for wind and geothermal resources in Northwestern Nevada could approach 2,200 MW.⁴
- The RETI Phase 1B report has identified the potential for approximately 4,700 MW of wind, geothermal, and solar resources in the Lassen and Round Mountain CREZ in Northeastern California.⁵
- The NV Energy generation interconnection queue dated January 16, 2009 lists approximately 1,900 MW of wind and geothermal resources in Lassen County, CA and Washoe County, NV.

In addition to providing access to the above renewable resources the addition of the TTP would:

- Increase the capacity of the 500-kV system in Northern California and thereby reduce the need for curtailments of resources (PG&E hydro, CDWR hydro, other Northern California generation and Pacific Northwest imports) delivered over CaISO-controlled transmission facilities.
- Reduce the potential for curtailments or redispatch for hydro and transmission services marketed by Western's and users of the California-Oregon Transmission Project (COTP).
- Increase the import capability of the transmission facilities extending into the greater San Francisco Bay Area which would also reduce transmission congestion costs and improve reliability of service to load served in this the Bay Area.
- Increase the load serving capability of the TANC Member systems.

By increasing the ability of the existing facilities to simultaneously deliver increased amounts of Northern California hydro generation and Pacific Northwest imports, the TTP enhances the operating flexibility of the system and permits greater utilization of environmentally preferred resources. Increasing the operating flexibility reduces environmental impacts by allowing greater potential for emissions based dispatch.

The TTP does not conflict with or reduce the potential environmental benefits of other projects or preclude other entities from pursuing other currently proposed projects or plans which have been publicly announced or which have been brought to TANC's attention during the Review Group process. While it appears as though there are potential

⁴ Refer to information package for RIR Stakeholder Meeting #5 (October 10, 2008) – pages 27, 28, and 29.

efficiencies that might be achieved through the development of certain “joint” projects, there is on-going discussion regarding joint ownership and development issues which need to be resolved.

2. Cooperate with others to look beyond specific end points of the sponsors’ Project to identify broader regional and sub regional needs or opportunities.

Because the TTP would be integrated with the existing transmission grid in Northern California, it will increase the overall reliability and usability of the grid. As discussed above, the addition of the TTP also reduces potential congestion on the California-Oregon Interties (COI) and provides for increased imports into the Greater San Francisco Bay Area.

As part of the Sub-Regional Planning effort, TANC has taken into account the future loads and resource needs of other parties, potential resource development opportunities, and transmission projects being proposed by other parties. These efforts have included performing powerflow studies which:

- Modeled approximately 2,200 MW of renewable generation that was in the CaISO interconnection queue and demonstrated how the TTP improved the ability of the system to deliver portions of these resources to load centers.
- Assessed the potential system impacts and benefits associated with the development of a “joint project” which incorporated certain elements of the TTP and PG&E’s CNC Project. These powerflow studies which, as discussed below are on-going, have indicated that the development of such facilities could potentially allow for the delivery of at least 4,000 MW of incremental resources from Northeastern California and/or the Pacific Northwest/Canada to load centers in Northern California.
- Assessed the potential interactions between the TTP and the proposed C3ETP and the degree to which an interconnection between them could increase system transfer capabilities. These preliminary studies have indicated that the development of tie between the TTP Alpha 4 Substation and a C3ETP termination at the Gregg Substation and the construction of a second 500-kV line⁶ between Alpha 4 and the Tracy/Tesla Substations could increase the amounts of power that could be delivered northward over Path 15 (including the C3ETP) by several

⁵ Refer to Table 4-5 in RETI report.

⁶ TANC will attempt to obtain the necessary permits to allow the Alpha Element 500-kV line to be built as a double-circuit line which would facilitate the development of this potential line.

hundred MW. At the suggestion of PG&E, these studies have been suspended until such time as the project scope for the C3ETP has been better defined.

Through the Sub-Regional Planning effort, TANC has made information associated with the TTP available to all Review Group members.

In addition, during the Sub-Regional Planning effort TANC has received expressions of interest from members of the Review Group about the potential interconnection of existing generation and loads with the TTP. Specifically:

- Western has expressed interest in interconnecting its New Melones hydroelectric powerplant with the proposed Alpha 4 Substation.
- The USBR has expressed interest in extending a 230-kV line from the TTP to interconnect USBR pumping loads and generation in the Los Banos area with the TTP.

Discussions are continuing with both Western and USBR on the above.

3. Address the efficient use of transmission corridors (e.g., rights-of-ways, new projects, optimal line voltage, upgrades, etc.).

TANC, Western, and PG&E continue to discuss and analyze potential “joint” project options which would include elements of the TTP and PG&E’s CNC Project and which would minimize the requirements for new rights-of-way. In addition:

- TANC and Western have had discussions with third parties concerning the development of a 230-kV line from the Tesla Substation into the Bay Area which could share towers with the Livermore-Newark segment of Program Element Delta.
- In its studies related to Program Element Delta, TANC assessed the potential benefits of upgrading certain of PG&E’s Bay Area 115-kV facilities for operation at 230-kV.

4. Cooperate with Regional Planning Review Group members in determining the benefits and impacts due to the Project

By the formation of the TTP Sub-Regional Planning Project Review Group, TANC has provided Western Interconnected entities, along with other stakeholders, a significant opportunity to provide input and identify benefits and impacts due to the addition of the TTP. The studies done by TANC as part of the Review Group process reflect the

input of the members of the Review Group and have been thoroughly reviewed with the members of the Review Group.

5. Identify transmission physical and operational constraints resulting from the Project or that are removed by the Project.

TANC's analyses, which were performed as part of the Review Group activities, did not identify any new physical or operational constraints on existing transmission paths resulting from the addition of the TTP. In fact, these analyses, which have been performed in coordination with the Review Group and have been reviewed by members of the Review Group, have shown that the addition of the TTP would:

- Allow for increased imports into the Greater San Francisco Bay Area and thereby improve the reliability of service to this Area.
- Reduce the potential for congestion on the COI by reducing some of the COI operating nomogram impacts.
- Allow for the delivery of at least 1,600 MW of new resources to load centers in Northern California.
- Increase the amounts of queued renewable resources located in Northern California that could be delivered to load centers in Northern California.

6. Coordinate project plans with and seek input from all interested members, sub regional planning group, power pools, and region-wide planning group(s).

As discussed above, TANC sought input from all WECC and WestConnect members when it notified them of its intent to form a Sub-Regional Planning Project Review Group for the TTP. TANC has actively coordinated TTP-related technical studies with the Review Group and has discussed these studies with the Review Group during the meetings listed in Appendix C. TANC has also:

- Discussed the TTP with the CaISO, PG&E, Western, the TANC Members, the FERC, and the CEC in venues other than the Review Group.
- Presented and provided information on the TTP to WestConnect and has included information relative to the TTP in WestConnect's 2007 and 2008 transmission plans and in the WestConnect planning map.
- Presented information on the TTP to the RETI work group in California and has worked with the RETI group in modeling the TTP facilities in its analysis.
- Shared information relative to the TTP with the RIR work group in California and has worked with the RIR group to model the TTP facilities in its analysis.
- Presented information on the TTP to parties involved in the CEC's Public Interest

Energy Research (PIER) program.

7. *Coordinate project plans with and seek input from other stakeholders including utilities, independent power producers, environmental and land use groups, regulators, and other stakeholders that may have an interest.*

As noted previously, TANC coordinated with its Members (including SMUD, MID, TID, SVP, and Redding) and other stakeholders during the identification of the proposed TTP facilities and has kept numerous other stakeholders (including utilities, power producers, and regulators) advised on the status of the TTP.

In addition, TANC, through the formation of the TTP Review Group and the other activities discussed in Guideline 6, has solicited information and interest in the TTP among numerous stakeholders and has relied on information gathered from these various stakeholders in its assessments. In addition to the regulatory and utility contacts discussed in the response to Guideline 6, in May 2008 TANC issued a Request for Information (RFI) which was sent to approximately twenty renewable project developers in Northern California and Northern Nevada. This RFI (which is included as Appendix D) noted that TANC:

- Was sponsoring the development of a new high voltage transmission project (“Project”) which is intended to expand access to renewable energy resources in the Northern California/Nevada border area for delivery to the TANC Members and other load centers in California.
- Desired to provide potential transmission customers and other stakeholders with a meaningful opportunity to participate in planning for this new Project.
- Was seeking input from renewable energy developers in planning the final configuration for and the development of the Project.

TANC received responses from eight interested resource developers who provided information on their proposed resources.

8. *Review the possibility of using the existing system, upgrades or reasonable alternatives to the Project to meet the need (including non-transmission alternatives where appropriate).*

As part of its efforts, TANC identified various resource development scenarios and assessed the degree to which the current transmission system could support these scenarios. TANC concluded the existing system is not adequate to accommodate the

delivery of significant amounts of incremental renewable and conventional resources to load centers in Northern California. The studies conducted by TANC modeled various system upgrades to the CalISO-controlled grid which have been approved by the CalISO. It is possible that there are other portions of the existing system which could be upgraded and thereby allow for the delivery of limited amounts of incremental resources. Such alternatives will be evaluated in subsequent TTP development activities. In addition, and as discussed above:

- TANC and Western have had discussions with third parties concerning the development of a 230-kV line from the Tesla Substation into the Bay Area which could share towers with the Livermore-Newark segment of Program Element Delta.
- In its studies related to Program Element Delta, TANC assessed the potential benefits of upgrading certain PG&E Bay Area 115-kV facilities for operation at 230-kV.

As discussed previously, the RETI Phase 1B report identified the potential for approximately 4,900 MW of wind, geothermal, and solar resources in Northeastern California which would be accessible via the TTP. This report also identified:

- Approximately 900 MW of potential wind resources in Solano County.
- Approximately 18,400 MW of “non-CREZ” renewable resources in Northern California; a majority of which are small (20 MW) PV solar “proxy” projects.
- Approximately 6,400 MW of renewable resources in the Central Coast area of California (generally located southwest of the Gates Substation).
- Approximately 82,000 MW of renewable resources in Southern California.

The potential resources in the Central Coast area and southern California are remote from the TANC Member load centers and significant additions to the transmission system between these resource areas and the area of the Tracy Substation would be required to allow these resources to be economically delivered to the TANC Members.

9. *Indicate that the sponsor's evaluation of the Project has taken into account costs and benefits of the Project compared with reasonable alternatives.*

As discussed previously the TTP facilities will meet the following goals for new transmission facilities in Northern California:

- Enhance the operational reliability of the overall electric system in Northern California,
- Increase potential imports/exports among neighboring utilities,

- Increase the operational reliability of the SMUD BA and the TID BA,
- Provide increased access to potential renewable resources,
- Allow for loads and resources which are presently interconnected with transmission facilities controlled by the CaISO to be interconnected directly with the SMUD BA, and
- Reduce the transmission-related costs of those TANC Members which are presently interconnected with the transmission facilities controlled by the CaISO.

To date no reasonable alternatives to the TTP which would meet the above goals have been identified. However, opportunities to potentially share facilities or rights-of-way (and thereby minimize impacts and costs) are being aggressively pursued.

10. Coordinate with potentially parallel or competing projects and consolidate projects where practicable.

As discussed above, TANC coordinated with its Members (including SMUD, MID, TID, SVP, and Redding) during the identification of the proposed TTP facilities and these Members are actively involved in the activities of the TTP Review Group. Other transmission owners and operators in the region, including the Bonneville Power Administration, the Western Area Power Administration, Pacific Gas & Electric, NV Energy, and the California ISO have all been participants in the TTP Review Group. As part of the Review Group activities the potential for the development of joint projects (including some elements of the TTP) have been discussed and such discussions are continuing. At this time, TANC believes that the development of the TTP as proposed is the preferred option for TANC and that the TTP can accommodate the reasonable interests of other parties.

SUB-REGIONAL STUDY COORDINATION

As discussed above TANC's Sub-Regional Study Coordination activities have included:

- Inviting all WECC and WestConnect members to participate in a Sub-Regional Planning Project Review Group (Review Group) for the TTP.
- Performing numerous technical studies to address matters raised by the members of the Review Group and thoroughly discussing these studies with the members of the Review Group.
- Discussing the TTP with the CaISO, PG&E, Western, the TANC Members, the FERC, and the CEC in venues other than the Review Group.
- Presenting information on the TTP to WestConnect and providing WestConnect with

the data required to include the TTP in its 2007 and 2008 transmission plans.

- Presenting and providing information on the TTP to the RETI and RIR work groups.

COORDINATION GOALS


TANC's goals in future WECC Project Rating Review Process activities will be to coordinate its activities with the involved entities in the Western Interconnection and to seek input from additional stakeholders, including but not limited to independent power producers, environmental and land use groups, state regulators, and others. Reasonable alternatives to the TTP will be considered and evaluated, including non-transmission alternatives, while evaluating costs and benefits so long as such alternatives meet the goals and objectives applied in the development of the TTP and provide equal or greater benefits to the TANC Members and the pertinent BA's as would the TTP. TANC will also continue to use the WestConnect forum to maximize the TTP's exposure to the entities and stakeholders within the Western Interconnection to help assure public awareness. In addition, TANC will continue to coordinate with the on-going RETI and RIR processes in California.

APPENDIX A
SUB-REGIONAL PLANNING LETTER

January 21, 2009

"Kent Bolton"
<Kent@wecc.biz>
01/04/2008 12:15 PM

To "PCCSTR" <PCCSTR@wecc.biz>, "PCCSTRCOR"
<PCCSTRCOR@wecc.biz>, "WECCPCC"
<WECCPCC@wecc.biz>, "WECCPCCR"
cc
bcc Dave Larsen/NCI
Subject Information Only - TANC Transmission Program

History:  This message has been forwarded.

PLANNING COORDINATION COMMITTEE
TECHNICAL STUDIES SUBCOMMITTEE

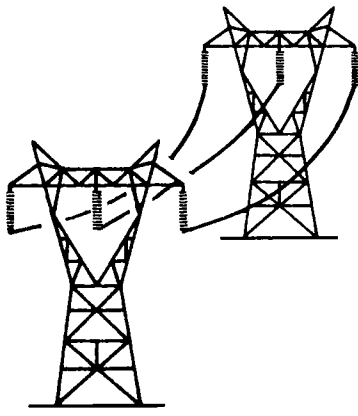
Please see the attached letter from the Transmission Agency of Northern California (TANC) concerning the letter that was distributed on 12/04/07 requesting interest in development of the TANC Transmission Program. Please refer all questions and comments to Mr. Bryan Griess at (916) 852-1673.

Thank you.

[Kirha J. Quick](#)
[Engineering Assistant](#)
[WECC](#)
[801-582-0353](#)



L-TTP SRPPRG 12-21-07.pdf



TRANSMISSION AGENCY OF NORTHERN CALIFORNIA

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

December 21, 2007

VIA E-MAIL

To: Interested Parties

Subject: TANC Transmission Program - Sub-Regional Planning Project Review Solicitation of Interest

On November 30, 2007 the Transmission Agency of Northern California (TANC) sent a letter to the members of WestConnect and the Western Electricity Coordinating Council announcing the organization of a Sub-Regional Planning Project Review Group for the TANC Transmission Program (TTP) and soliciting interested parties to participate in the development of the TTP. As noted in our November 30, 2007 letter the TTP elements in Northern California include:

- 500-kV facilities extending from Northeastern California, south through the Round Mountain area, and extending further south to the Tracy Substation with potential intermediate substations in the Sacramento and Lodi areas (Project Zeta);
- A series of new 230-kV lines that will extend from the Lodi area to new substations in the Modesto/Turlock area (Project Alpha); and
- 230-kV facilities extending from the Tracy Substation to Santa Clara area in the southern portion of the San Francisco Bay Area (Project Delta).
- These facilities will be operated within the SMUD/Western Balancing Authority.

TANC does not presently envision the need to undertake the WECC rating process for the TTP; however, TANC does want to reach out to other parties that are not members of WestConnect to notify them of the TTP and to solicit their potential interest in the planning effort. In the event that the TTP final plan of service would require application of the WECC rating process, TANC intends that the proposed planning effort satisfy the WECC Phase 0 Criteria. Therefore, TANC also sent the November 30, 2007 letter to the WECC members.

We trust that the above will clear up some apparent misconceptions that some parties may have had regarding our letter of November 30, 2007.

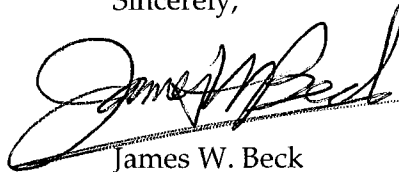
Interested Parties
December 21, 2007
Page Two

In the November 30, 2007 letter TANC requested that an Expression of Interest form for the proposed Sub-Regional Planning Project Review Group (Attachment A to the letter) be completed and returned by December 18, 2007. Because of the apparent misconceptions noted above, TANC is extending this deadline to December 31, 2007. A copy of the Expression of Interest form is attached for your use. If you have already submitted an Expression of Interest form, it is not necessary for you to submit a second one.

Also, please be advised that TANC is planning to hold the initial meeting of the TTP Sub-Regional Planning Project Review Group in late January 2008, in Sacramento, CA. In early January details relative to this meeting will be sent to those parties expressing an interest in participating in the Review Group.

If you have any questions on the above, please contact Mr. Bryan Griess, TANC Assistant General Manager at (916) 852-1673.

Sincerely,

A handwritten signature in black ink, appearing to read "James W. Beck", written over a horizontal dotted line.

James W. Beck
General Manager

Enclosure

ATTACHMENT A

EXPRESSION OF INTEREST

**Sub Regional Transmission Planning Project Review Group
TANC Transmission Program**

Contact Person Name

Company_____

Telephone_____

Fax_____

E-mail Address_____

Mailing Address_____

Overnight Delivery Address

Alternate Contact Person Name

Company_____

Telephone_____

Fax_____

E-mail Address_____

Mailing Address_____

Overnight Delivery Address

- We are interested in participating in the Sub-Regional Transmission Planning Project Review Group for the TANC Transmission Program
- We are only interested in keeping informed of the progress of the TANC Transmission Program.

Please E-mail, Fax or Mail by December 31, 2007 to:

Bryan W. Griess
Assistant General Manager
Transmission Agency of No. California

bgriess@navigantconsulting.com
(916) 631-3200 (telephone)
(916) 852-1073 (fax)

P.O. Box 15129
Sacramento, CA 95851-0129

APPENDIX B
MEMBERS OF TTP SUB-REGIONAL PLANNING
PROJECT REVIEW GROUP

COMPANY	CONTACT NAME
Modesto Irrigation District	Spencer Tacke
	Steve Hill
	David Olivares
City of Redding	Tim Nichols
Sacramento Municipal Utility District	Dick Buckingham
	Joe Tarantino
	Dilip Mahendra
	Craig Cameron
Silicon Valley Power	Jim Lauth
Turlock Irrigation District	Larry Gilbertson
Bonneville Power Administration	Rebecca Berdahl
	Karl Schneider
Columbia Grid	Jeff Miller
	Marv Landauer
Western Area Power Administration	Phil Sanchez
	Larry Tobias
	Bob Easton
	Kurt Sornborger
Pacific Gas & Electric Company	Chifong Thomas
	Ben Morris
	Robert Jenkins
	Kang-Ling Ching
Powerex	Gordon Dobson-Mack
	Glen Tang
California ISO	Robert Sparks
Calpine	Vincent Yang
NV Energy (SPPC)	Jim McMorran
	Marty Hostler
	Paul Schmidt
US Bureau of Reclamation	Barry Mortimeyer
CA Department of Water Resources	Rick Buckingham
	Barry Mahoney
Bay Area Municipal Utilities	Barry Flynn
	Ed Chang
	Pushkar Wagle
PacifiCorp	Tom Tjoelker

APPENDIX C
TTP SUB-REGIONAL REVIEW GROUP MEETINGS

<u>Meeting Date</u>	<u>Meeting Location</u>
March 14, 2008	Sacramento, CA
June 12, 2008	Sacramento, CA
September 18, 2008	Rancho Cordova, CA
October 23, 2008	Rancho Cordova, CA
December 18, 2008	Rancho Cordova, CA

January 21, 2009

APPENDIX D
TANC'S MAY 2008
REQUEST FOR INFORMATION

January 21, 2009

Transmission Agency of Northern
California (TANC)

**Request for Information
From Renewable Energy Project
Developers**

Related to TANC's New High Voltage
Electric Transmission System Expansion
in Northern California



May 9, 2008

Introduction

California has the most aggressive renewable energy goals of any state in the Nation, yet faces challenges in meeting these goals due to a considerable lack of transmission capability to access and deliver renewable energy to California's load centers. Particulars of renewable transmission - economic, locational and technological - tend to create a chicken-and-egg problem: New renewable resources are not developed due to a lack of transmission, and new transmission is not developed due to a lack of committed resources to utilize the transmission resource.

The Transmission Agency of Northern California (TANC) is sponsoring development of a new high voltage transmission project (Project) intended to expand access to renewable energy resources in the Northern California/Nevada border area for delivery to our Members and other load centers in California.

TANC desires to provide potential transmission customers and other stakeholders with a meaningful opportunity to participate in planning for this new Project and is seeking input from renewable energy developers in planning the final configuration and development of Project.

TANC has prepared this Request for Information (RFI) in order to determine the viability and potential of new high voltage electric transmission lines and related facilities that would allow access to renewable energy resources proposed or under development in the northern California-Nevada border area.

Overview

Who is TANC

TANC is a California Joint Powers Agency formed in 1984. We were formed to assist our publicly owned utility Members in providing cost-effective energy supplies to their customers through long-term ownership of essential high-voltage transmission lines within California and the Western United States.

The Member utilities of TANC are the cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Redding, Roseville, Santa Clara, and Ukiah; the Sacramento Municipal Utility District (SMUD); the Modesto Irrigation District (MID); the Turlock Irrigation District (TID); and the Plumas-Sierra Rural Electric Cooperative. TANC Members serve a load of approximately 23,000 GWh per year and represent over one million customers.

TANC currently owns approximately 87 percent of the California-Oregon Transmission Project (COTP), a 1,600 MW high voltage line from the Pacific Northwest to Northern California, and has additional transmission rights contracted from the Pacific Gas and Electric Company. TANC is a member of WestConnect, wesTTrans and the WECC and

is registered at NERC as a Transmission Owner, Transmission Provider and a Transmission Service Provider.

TANC, as a California Joint Powers Agency created pursuant to California Government Code, conducts all business consistent with the requirements of California's Fair Political Practices Commission as well as other applicable statutes and regulations. All TANC meetings are noticed and administered consistent with the provisions of the Ralph M. Brown Act, which governs meetings of local legislative bodies.

TANC, as a transmission agency, does not procure energy on behalf of its members. However, TANC Members are committed to helping California meet its clean energy goals through considerable investment and contracting in renewable projects.

New Transmission Program Component (Currently named Project Zeta)

TANC is investigating the feasibility of constructing one or several high voltage transmission options in Northern California. One such option would be to build two high voltage (500 kV) lines from Shasta County to Eastern-Central Lassen County that would connect with a new high voltage line extending from Shasta County down to the Tracy area with one or more 500/230-kV substations in the Sacramento/Lodi/Tracy areas. The primary purpose of the lines into Lassen County would be to allow renewable resources that may be developed in far Northeastern California and Northwestern Nevada access to the large California energy market.

The line construction would be completed around the 2012-2015 timeframe and would allow access to resources in Lassen, Modoc, Plumas and parts of neighboring counties in California and Washoe and neighboring counties in Nevada.

Attachment A is a map showing the general area of interest. The area in brown would be the primary area of interest for the location of potential renewable generation projects. The green hatched area represents the general area of interest for the potential layout of the TANC Transmission Program. Respondents are encouraged to respond with any information on potential renewable projects they think would help TANC determine the best paths and terminal points for the transmission lines in the Northeastern part of the State of California. TANC will also consider potential renewable projects located outside the areas labeled 'Potential Renewable Generation'.

Purpose of the RFI

The feasibility of the new transmission lines is largely dependent on the amount of utilization the lines would get from renewable resources. For TANC, this RFI is an attempt to gather more firm information on who may be developing or considering projects in the affected area, the type and size of such projects, the timing, and optionally the energy price of potential projects. In addition to using the information to examine the feasibility of the new transmission lines, the information will also provide useful input for

the analysis of the potential configuration and layout of the TANC Transmission Program. As TANC does not procure energy itself, this RFI is not an offer to enter into negotiations with TANC. However, per FERC Order 890, TANC wishes to involve all potential transmission customers in the planning of the TANC Transmission Program configuration as the transmission lines would provide such customers greater access to the California market.

The other purpose of the RFI is to communicate a potential transmission option that is currently being considered to renewable energy project developers, since at the present time such options are limited in the Northern California-Nevada border region. This will afford developers the opportunity to investigate new potential renewable energy project development with more definitive options for delivery to load within the State of California. In the interest of information exchange, TANC is taking this opportunity to proactively expand outreach to other stakeholders beyond those who may be actively involved in TANC’s regional transmission planning process.

Information Requested

Respondents are asked to use Attachment B to respond to this RFI. TANC does not expect information to be as detailed as it would be for an RFO, but is only seeking survey type information at this time. Respondents may also include additional information that they feel may be of interest to TANC or that may be relevant in planning for this transmission project. Please use one form per project you wish to discuss. Individual respondents will be contacted upon receipt of a response by TANC.

Timeline

Release of TANC Request for Information (RFI)		May 9, 2008
Informational Meeting/Call	2 weeks	2 PM PPT, May 23, 2008
Responses Due	4 weeks	COB June 6, 2008

An informational call will be held on May 23 at 2:00 PM PPT to give more detail on the Transmission Project and to answer questions. To join the call:

Dial In: 866/855-1402
 Conference Code: 4568741567

Confidentiality

Submitted responses may include proprietary and/or confidential information. Respondents are advised that Section 6253 of the California Public Records Act provides that any person may receive a copy of any identifiable public record that is not exempt from disclosure under other provisions of the Act. TANC will disclose such documents unless (1) the data submitted in response to this RFO is stamped "Proprietary/Confidential Materials;" or (2) the respondent(s) provides a brief explanation of the basis for confidentiality under the Public Records Act. TANC reserves the right to release such information to its members for purposes of evaluating the transmission project. In the event that such release to members is made, members will be bound to the same standard of care with respect to disclosure as TANC.

Aggregated, non-specific information may be made more widely available, including potentially being posted on the TANC website (<http://www.tanc.us>). Summaries of the RFI responses will be prepared, but individual responses and the identity of respondents will be maintained as confidential information, unless release of such information is consented to by the respondent.

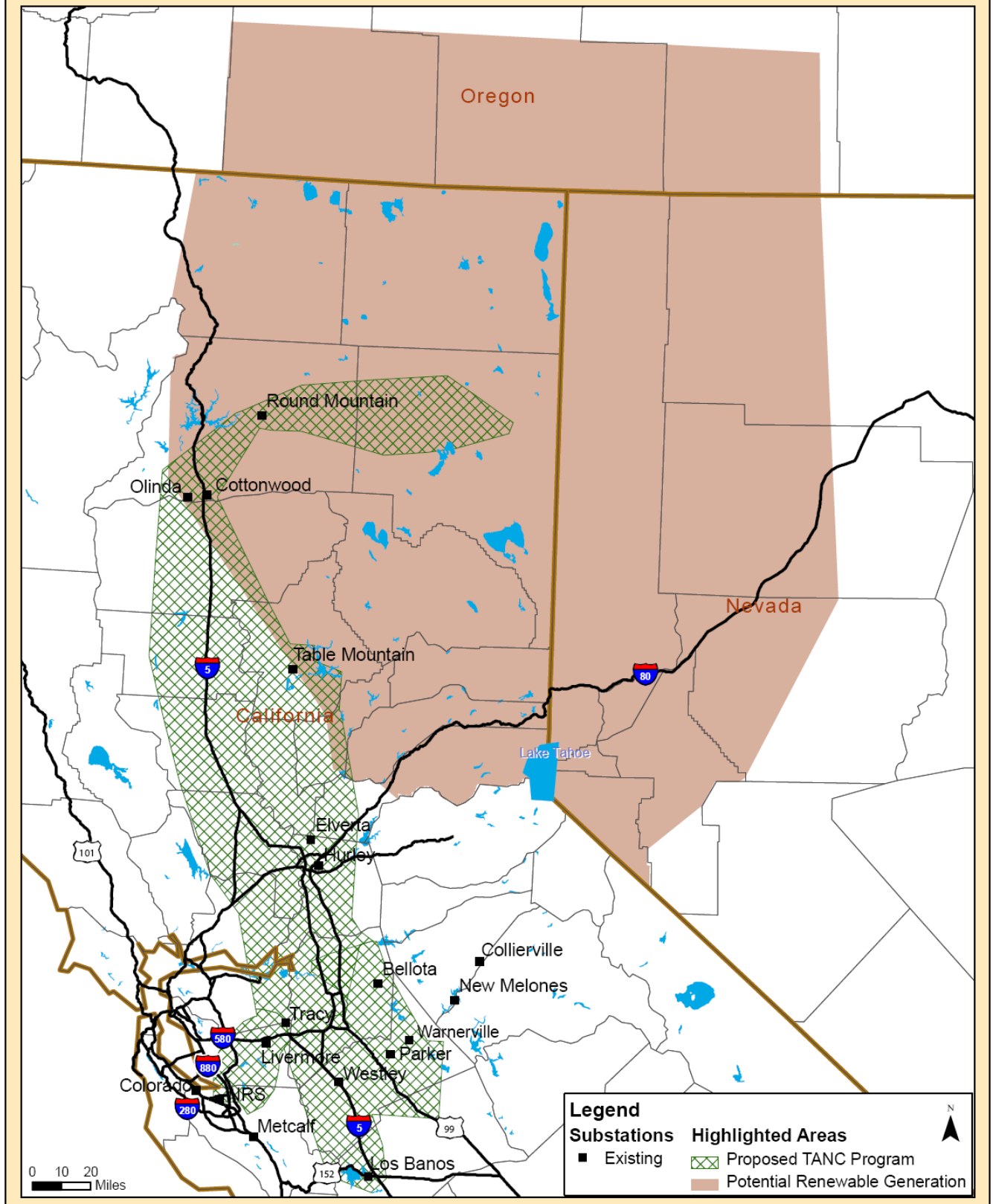
Contacts

For more information you may contact the following:

John Dalessi
3100 Zinfandel Dr.
Suite 600
Rancho Cordova, CA 95670
Tel: 916.852.1673
Fax: 916.852.1073
Email: info@tanc.us

Information is also available at the TANC website <http://www.tanc.us>

Appendix A: Proposed TANC Program and Area of Potential Renewable Generation



Attachment B
Transmission Agency of Northern California (TANC)
Request for Information Response Form

Company: _____
Address: _____
City: _____, State: _____ Zip: _____
Contact Name: _____ Phone: _____
Email: _____
Website (if available): _____

Technology

Wind
 Geothermal
 Biomass
 Solar
 Small Hydro (less than 30 MW)
 Other _____

Additional Technology Information:

Location

California Counties:

Butte Modoc Sierra Yuba
 Lassen Plumas Siskiyou
 Nevada Shasta Tehama

Nevada Counties:

Carson City Humboldt Storey
 Churchill Lyon Washoe
 Douglas Pershing

Oregon Counties:

Harney Klamath Lake

Other Location _____

Additional Location Information:

Approximate Capacity: _____
Approximate Annual Energy (GWh): _____
Approximate Online Year: _____
(Optional) Approximate Cost (\$/MWh): _____

Delivery

____ Baseload ____ On-Peak ____ Off-Peak ____ Intermittent

Please outline, briefly, how far into the development process this project is:

Additional Information:

Would you like this information shared with individual TANC members?

___ Yes ___ No

Return, along with any other information you wish to include, to:

TANC Renewable RFI
3100 Zinfandel Dr.
Suite 600
Rancho Cordova, CA 95670

Or email a .PDF or .DOC to
info@tanc.us

Confirmation of receipt will be sent via email.