

**TANC COMMENTS**  
**ON THE CAISO'S DRAFT 2015-2016 TRANSMISSION PLAN**

The Transmission Agency of Northern California (TANC) appreciates this opportunity to provide comments on the California Independent System Operator's (CAISO) 2015-2016 Draft Transmission Plan. This plan was published on February 1, 2016 with a subsequent stakeholder meeting held February 18, 2016. TANC's primary comment/issue is that the California-Oregon Intertie (COI) and/or full system is not being modeled to reflect the realities that continue to occur and are likely to continue on the high-voltage grid in the evolving marketplace. Specifically, TANC has three key issues:

1. Historic congestion on the COI leads to market inefficiencies and costs California consumers tens of millions of dollars annually. The evolving operating procedures for the COI indicates that transfer capability between California and the Pacific Northwest may be further eroded in the future.
2. Previously approved upgrades on PG&E's transmission system are being delayed, including projects that have a direct impact on the transfer capability of the COI.
3. CAISO sponsored benefit studies related to PacifiCorp joining as a Participating Transmission Owner (PTO) indicate that one of the limiting factors to additional benefits is the lack of transfer capability between the CAISO and PacifiCorp. Currently, the only interconnection is at COI, therefore efforts to maximize and/or enhance COI transfer capability should be paramount to insure the benefits modelled by the CAISO are actually attainable.

**Economic Studies**

The table below provides actual congestion on the CAISO portion of the COI and this data far exceeds the *de minimus* congestion cost forecast for Path 66 in the Draft Plan.

	<b>Congestion Costs ISO COI (\$mil)</b>	<b># of Hours<sup>1</sup></b>	<b>% of Hours<sup>2</sup></b>
<b>2009</b>	49.9	438	5%
<b>2010</b>	41.2	964	11%
<b>2011</b>	49.5	1,139	13%
<b>2012</b>	84.7	3,689	42%
<b>2013</b>	34.0	1,844	21%
<b>2014</b>	88.7	2,190	25%
<b>2015</b>	37.7	2303	26%
<b>Total</b>	385.7	12,576	21%

TANC commented on this issue in prior stakeholder meetings and the CAISO responded to those comments with a table indicating the modeling of transmission outages in less than 1.5% of the hours. The table below indicates that operational reality of the COI is much different with limitations 60-90% of the time.

	<b>COI Transfer Limits (MW)</b>		
	<b>% of Hours</b>		
	<b>4800</b>	<b>&gt; 4000</b>	<b>&gt; 3200</b>
<b>2009</b>	3.3%	39.5%	74.6%
<b>2010</b>	8.0%	50.2%	91.0%
<b>2011</b>	13.5%	59.6%	89.7%
<b>2012</b>	13.3%	35.1%	63.2%
<b>2013</b>	22.2%	50.7%	93.7%
<b>2014</b>	31.4%	49.7%	79.6%
<b>2015</b>	38.1%	75.9%	90.3%

TANC believes that CAISO’s economic studies could be improved in future study cycles to better reflect operational realities that cost Californians millions of dollars annually in congestion costs. TANC strongly supports the CAISO’s consideration of a sensitivity study to model congestion (and potential remedies) for COI transfer capability based upon historic and future expected operating realities on Path 66/COI.

**South of Palermo 115-kV Reinforcement Project Delays**

The South of Palermo 115-kV Reinforcement Project was approved by the CAISO for PG&E in the 2010-11 Transmission Plan with an estimated in-service date of May, 2014. Since then its in-service date has been extended three times in subsequent transmission plans. The latest plan shows an in-service date of May 2022, which is three years from the most recent update.<sup>1</sup>

This project is of particular concern to TANC as it is needed to mitigate the PGE Blk-T-24 thermal overload in the PGE bulk system reliability study. The option in the interim is to limit COI transfer capability per the COI nomogram.<sup>2</sup> Delay of this project prohibits the bulk electric transmission system from optimal performance and efficiency. This delay will come three years after the January 1, 2019 projected start date for PacifiCorp to join the CAISO as a PTO, and could limit the benefits that would accrue from this merger.

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<sup>1</sup> The project was extended out to May 2017 in the 2012-13 Transmission Plan and out to May 2019 in the 2013-14 Transmission Plan.

<sup>2</sup> This project is also instrumental to mitigating several other reliability issues found by the CAISO.

TANC would also note that PG&E has extended the in-service dates of a large number of their CAISO approved projects. TANC is concerned that the delays, or otherwise overly optimistic initial in-service dates, are impacting the COI transfer capabilities and may not allow the CAISO to model the bulk electric transmission system accurately in subsequent planning cycles. TANC is pleased that the CAISO reviews and comments upon PG&E proposed projects and hope those that continue to be found needed are completed in a timely manner.

### **Potential COI Impacts on the Benefits of PacifiCorp Joining as a PTO**

The Technical Appendix to the PacifiCorp Benefits Study uses the full 982 MW transfer capability between PacifiCorp into the CAISO to develop benefits. However, this is unlikely to be the case much of the time which limits potential benefits. On page 2 of the report it states that "...coordinated transmission planning could significantly increase transfer capability between an integrated PacifiCorp-ISO system, which could increase the level of incremental benefits in this report." Additionally on page 8 "The quantity of capacity savings from peak load diversity depends on three factors...(2) transfer limits between ISO and PacifiCorp that constrain the maximum amount of capacity savings..."

TANC's understanding is that in order to achieve the benefits modelled in the CAISO's report (and potentially more benefits) robust transfers across the COI must occur. Therefore, we struggle to understand why the TPP and CAISO seem to disregard historic congestion, lowering operating capability due to the evolving operating procedures and the fact that the CAISO would cite limitations on the COI as a mitigation action in no less than seven contingencies found in Appendix C – PGE-Blk-12, 17 (2), 18, 19, 20, 24.

TANC remains committed to work with the CAISO and the other owners of the COI to develop options and alternatives to maximize the transfer capability of the COI. TANC encourages the CAISO to work with the COI owners to focus on those issues limiting COI transfer capability, and develop solutions that address this significant issue for California consumers and the expansion of the CAISO's market.