



Smart Wires, Inc. Comments on the TEAM Methodology and Stakeholder Meeting November 16, 2016

Submitted By:	Company:	Date Submitted:
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Comments

Smart Wires, Inc. (“Smart Wires”) appreciates the opportunity to participate in the annual Transmission Planning Process (TPP) stakeholder process. Smart Wires submits these comments on the Transmission Economic Assessment Methodology (TEAM) and the topics discussed at the Stakeholder Meeting on November 16, 2016. Smart Wires commends the CAISO for their work to ensure a robust stakeholder process and for its thoughtful consideration of new grid resources. Smart Wires looks forward to continued dialogue on this process.

CAISO Should Ensure the TEAM Methodology Includes Advanced Transmission Technologies

We encourage the CAISO to ensure that the TEAM methodology includes advanced transmission technologies, such as modular power flow control, dynamic line rating, and energy storage technologies in the analysis of transmission solutions to identified economic¹ needs.

At the November 16 Stakeholder Meeting, CAISO noted in the presentation that it was considering resource alternatives to transmission expansion (page 18). CAISO also responded verbally that advanced transmission technologies will be included in the TEAM methodology; Smart Wires encourages CAISO to verify it has the necessary models and information to do so.

Advanced transmission technologies are often more cost-effective and more flexible than traditional solutions, such as reconductoring or phase-shifting transformers. Therefore, it is important that CAISO is

¹ CAISO Open Access Transmission Tariff §24.4.6.7 **Economic Studies and Mitigation Solutions**. Smart Wires technologies would fall into first category, *other transmission solutions* (below).

“The CAISO, in determining whether a particular solution is needed, shall also consider the comparative costs and benefits of viable alternatives to the particular transmission solution, including: (1) other potential transmission solutions, ...; (2) acceleration or expansion of any transmission solution ..., and (3) non-transmission solutions, including demand-side management.”

able to evaluate these technologies to find economic projects with ratepayer savings and a benefit to cost ratio of greater than 1.0.

There are a number of initial steps that the CAISO could consider, such as:

- **Verify that advanced power flow control can be appropriately modeled in technical and economic studies.** There is a bare minimum amount of information that one needs to model a transmission solution²; the CAISO should verify that it has all this information to minimally represent advanced power flow control technologies such as Smart Wires PowerLine Guardian®, Power Guardian™ and Power Router™. Additionally, advanced power flow control technologies are more easily dispatched, have greater granularity and accuracy in dispatch, and allow for more intelligent control than traditional power flow control technologies. These details matter when evaluating two similar, but different technologies. We would ask that CAISO verify that these differences can be appropriately represented, or approximated, in models and software.
- **Verify that advanced power flow control is included in the set of transmission solutions,** along with the traditional upgrade options. CAISO is required to “*consider the comparative costs and benefits of viable alternatives to the particular transmission solutions.*”³ We are asking CAISO to consider advanced power flow control in the evaluation and selection of transmission alternatives to best meet California’s future transmission needs.

We appreciate CAISO’s consideration of these comments; if you wish to discuss please do not hesitate to contact Todd Ryan at 617.784.5342, or Todd.Ryan@SmartWires.com.



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² *Id.* §24.4.7 **Description of Transmission Solutions**
³ *Id.* §24.4.6.7 **Economic Studies and Mitigation Solutions**