



2017-2018 Transmission Planning Process

Submitted by	Company	Date Submitted
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September 21-22, 2017 Transmission Planning Process Stakeholder Meeting Comments

Smart Wires Inc. (*a.k.a.*, “Smart Wires”) would like to commend CAISO on another year worth of in-depth, meticulous, and thorough analysis communicated clearly over a two day period. The actual task of planning for such a large and complex area as California is a herculean feat in itself. The added difficulty of then synthesizing all of that analysis into a prudent plan for Californians is not lost on Smart Wires. As a Californian company, we greatly appreciate the opportunity to comment into the Transmission Planning Process (TPP) as well as all of the work you do to keep the lights on.

Alternatives

Smart Wires would like to commend CAISO on a small but important change to the provided stakeholder materials: the addition of *alternatives* for each proposed project (*see* Figure 1 below, emphasis added with an orange box). While this may seem like a small change or even trivial change, Smart Wires believes it is an important datum to help stakeholders understand what options are available. Smart Wires knows how committed CAISO is to providing transparency whenever it is appropriate and can help lead to better decisions; this is a perfect example of such commitment.

‘Why’ in addition to ‘What’

While providing *what* alternatives were considered is very helpful, it would be even more helpful if CAISO and the PTO’s could provide additional details as to *why* the presented solution is preferred over the alternatives. The presented solution is, inherently by the fact that it is being presented, the default or preferred solution. Given no other data, stakeholders can only say ‘*yes, we like this project*’, or ‘*no, we don’t like this project because...*’ Giving stakeholders more information as to the *pros* and *cons* of the presented project as well as one or two feasible alternatives allows for a deeper discussion of the solutions and will ultimately lead to better decision on behalf of Californians.

Metcalfe-Evergreen 115 kV Line Reconductoring is a perfect example of where a little explanation of the *why* could prove tremendously valuable to stakeholders.

Could the CAISO please provide stakeholders more information on the advantages and disadvantages of the two feasible options: line reconductoring and power flow control?

Metcalfe-Evergreen 115 kV Line Reconductoring

- Original need
 - 2001 TPP: NERC Category P1 thermal overload.
- Reliability Assessment Need
 - NERC Categories P2 and P6 thermal overloads in multiple sensitivity scenarios including two peak-shift sensitivities.
- Mitigation still required (or not)
 - Mitigation required for reliability
 - Also needed in the Bay Area for LCR in San Jose sub-area.
- Review of current project to meet need
 - Current scope of approved project mitigates identified thermal overloads. Under review for potential alternative solutions.
- Alternatives
 - Power flow control device
- Preliminary Conclusion
 - Original scope of reconductoring Metcalfe-Evergreen 115 kV lines.

California ISO Slide 11

Figure 1. This slide is an example of a transmission project presented in the CAISO September 21-22 Transmission Planning Process Stakeholder Meeting. Note that the slide includes what alternatives were considered to solve this reliability problem. This list of alternatives was provided for most, if not all, of the presented projects. To our knowledge, this was not the case for previous years. The addition of this datum provides stakeholders with a better understanding of from what options California has to choose.

Conclusion

Smart Wires would like to thank CAISO for all of your hard work and your commitment to providing a fair and transparent planning process. We would also like to encourage you to continue to expand this transparency by providing not only *what* alternatives are being considered, but *why* one solution is a better solution for California over all the others.

Sincerely,

Todd Ryan

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Smart Wires Inc.

About Smart Wires

Based on the San Francisco Bay Area, with offices in the United States, the United Kingdom, Ireland and Australia, Smart Wires is the leader in grid optimization solutions that leverage its patented modular power flow control technology. Smart Wires solutions are quickly deployable, enabling utilities to react quickly and address emergency problems. This flexible technology is also easily redeployable, providing a robust investment to solve short duration need windows and hedge against the uncertain nature of their systems' future needs. Driven by a world-class leadership team with extensive experience delivering innovative solutions, Smart Wires partners with utilities around the globe to address the unique challenges of the rapidly evolving electric system. Smart Wires' technology was developed by utilities for utilities, led by a consortium of large U.S. utilities at the National Electric Energy Testing Research and Applications Center (NEETRAC). This core group of utilities, which included Southern Company and Tennessee Valley Authority (TVA), defined the vision for the original modular power flow control solution. PG&E, EirGrid (Ireland), Minnesota Power, Central Hudson, and Western Power (Australia) are some of the other utilities leveraging Smart Wires power flow control solutions.

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