

COMMENTS OF THE CALIFORNIA WIND ENERGY ASSOCIATION ON PROPOSED PTO PER-UNIT TRANSMISSION CONSTRUCTION COSTS

March 12th, 2009

The California Wind Energy Association (“CalWEA”) appreciates the opportunity to comment on the Participating Transmission Owner (“PTO”) on the standard per-unit transmission construction costs (“PTO Costs”) presented at the February 26th stakeholder meeting.

CalWEA welcomes these efforts to provide standard cost estimates to the public in the context of the CAISO’s Generator Interconnection Process Reform (“GIPR”). These PTO Costs will meet two critical needs under the GIPR framework, allowing generation developers to:

- ***Roughly estimate interconnection costs before submitting Interconnection Requests*** (“IRs”) – an important function because of the more-stringent IR financial commitments required under the GIPR; and
- ***Validate cost estimates from the Interconnection Studies under the GIPR.*** While those costs may differ from those estimated using the PTO Costs, the differences must be explained; this will raise the confidence of developers that their interconnection costs were determined in a fair and non-discriminatory manner.

While we appreciate the PTO efforts to develop the information presented thus far, we fear that, if not supplemented and modified, it will not accomplish the purposes listed above. The information is incomplete and inconsistent between PTOs, and the costs appear far higher than elsewhere in many respects.

The CAISO said at the February 26th meeting that it would not address completeness, consistency, or reasonableness of the proposed PTO Costs stakeholders raise those issues; thus, we are raising them here. Specifically, the CAISO should take responsibility for ensuring that published PTO Costs are complete, consistent between PTOs, and reasonable overall.

For example, generators that would interconnect at voltages where costs were not provided will have no information at all, and one could argue that such an incomplete PTO showing does not satisfy ISO Tariff requirements or FERC directives in this area. Similarly, cost estimates that are different between PTOs by orders of magnitude, with no effort to reconcile or explain these differences, certainly are not in the spirit of the Tariff or FERC directives and will not meet the needs of developers in the interconnection process.

Lack of Consistency

A. New transmission lines

The only voltage category for which all three PTOs submitted cost estimates was 230 kV. However, while PG&E estimates \$1.1 million in costs for single circuit 230 kV steel pole transmission, SCE estimates \$5 million and SDG&E estimates \$4.9 million for the same facilities. It is not clear why these costs should be so different; steel poles neither cost significantly more to buy nor to install in Southern California than in Northern California.

B. Adjustment factors

Each PTO included factors for terrain and location. However, PG&E and SCE used rural costs as their baseline, with suburban and urban costs progressively higher, whereas SDG&E used urban costs as its baseline, with suburban and rural costs progressively higher. These two approaches appear to be fundamentally contradictory, e.g., it is not clear how rural costs could be both higher and lower than urban costs.

Lack of Reasonableness

A. PTO cost estimates are significantly higher than estimates by other ISOs/RTOs

For example:

- The Midwest Independent System Operator (MISO) estimated the cost of single-circuit 500 kV lines at \$1.4 million/mile¹; and
- The Southwest Power Pool estimated the cost of double-circuit 345 kV at approximately \$2.6 million/mile².

Both single-circuit 500 kV and double-circuit 345 kV lines require more expensive structures than single-circuit 230 kV lines.

The CAISO should validate the reasonableness of submitted PTO Costs by benchmarking them against public information on the cost of similar facilities of other Independent System Operators (ISO) and Regional Transmission Organizations (RTO), as well as those of publicly-owned utilities in California; significant differences should be explained before the PTO Costs are finalized. Unreasonable posted PTO Costs could discourage developers from submitting IRs for viable projects, impeding achievement of California's ambitious RPS goals.

B. 2008 cost estimates may no longer be valid

Short-term spikes in fuel and commodity costs in 2008 caused cost estimates to rise temporarily. However, given the return of both commodity prices and electrical equipment to historically consistent levels, these cost estimates may not be valid for long-term planning purposes.

C. Removal costs should reflect salvage value

The salvage value of the structures and the conductors, particularly steel and copper, can be significant; these should be estimated and offset against the cost of their removal.

¹ See p.108 of MISO's 2008 transmission expansion plan report, dated December 4, 2008
http://www.midwestiso.org/publish/Document/279a04_11db4d152b9_-7d8d0a48324a/2008-11_MTEP08_Report.pdf?action=download&_property=Attachment

² See p.81 of the SPP 2008 transmission expansion plan report, dated February 23, 2009; \$4.5 billion / 1,700 miles = \$2.6 million/mile. http://www.spp.org/publications/2008_Approved_STEP_Report_Redacted.pdf

Lack of Data

A. Voltage levels

Each PTO should provide cost estimates for all transmission voltage levels (60 kV and higher) of facilities it is likely to build for GIPR-related transmission projects. Specifically, each PTO should provide cost estimates for the 60-70 kV, 110-138 kV, 220-230 kV, and 500 kV voltage levels.

B. Structures

Each PTO should provide both lattice tower and steel pole costs for both the 110-138 kV and 220-230 kV voltage classes, especially given the potentially significant difference in costs. Cost estimates should be provided for both single- and double-circuit costs in all voltage classes, for the applicable types of structures.