

PGRR Comments

PGRR Number	031	PGRR Title	Implement 95% Facility Rating Limit in the Planning Criteria
--------------------	------------	-------------------	---

Date	February 3, 2014
-------------	------------------

Submitter's Information	
Name	Randy Jones
E-mail Address	rajones@calpine.com
Company	Calpine
Phone Number	713.830.8846
Cell Number	832.385.3322
Market Segment	Independent Generator

Comments

Calpine recommends the Board of Directors insist on a more compelling case be offered prior to the adoption of PGRR031. This PGRR would establish a criteria of 95% of a facility's rating for transmission project planning. This 5% deduct would be applied after all other conservative measures are used to plan a project six years out rather than looking for more accurate ways to account for planning uncertainty.

At the January 28th 2014 Technical Advisory Committee (TAC) meeting, ERCOT Staff presented an overview of the Operations and Planning Synchronization Task Force (OPSTF) work and thought processes that went into PGRR031's development by OPSTF members. Of particular interest was slide #3 provided below of the presentation "Response to TAC Questions on PGRR031:"

Why 95%? (see Appendix 1 for details)

Issue	% Loading Variance	In 2012 ERCOT conducted an analysis to determine the impact of a 90% or 95% criterion on the 2012 Five-Year Transmission Plan 2015 case
Construction Delays	~2%-5%	
Typical wide-area generation unavailability	~4%	
Dynamic ratings on hot days	~3%	
Long-term load forecast error	?	
Transmission outages	Large variation	
Total	?	

Criterion	# Elements
Loaded between 90% and 100%	155
Loaded between 95% and 100%	40

Numbers reference	#
Total Projects in 2013 Regional Transmission Plan	105
Total Future Projects in November 2013 TPIT	621
Total Elements in 2012 Five-Year Transmission Plan 2015 case	~7000

TAC members were told that due to the "Issues" in the left column the OPSTF membership were mostly in favor of making the criteria 95% of the facility's rating but many members favored a 90% criteria. Although there may be some overlap of these factors for any given project or set of projects, stakeholders are expected to see the

PGRR Comments

case for a 5% deduction as compelling despite the fact that these issues could add up to more than a 10% deduction for some projects. ERCOT informed TAC that 95% was chosen, but OPSTF members were split over 90% or 95%.

To the casual observer the choice made by the OPSTF, ratified by ROS and barely passed by TAC was an extremely arbitrary choice that is stacked on top of a number of planning measures already in place to ensure that the transmission customer's investment is used and useful.

One additional point we would like stakeholders to consider is the very conservative approach already being used by Transmission Operators (TOs) in their selection of line ratings in the Steady State Working Group (SSWG) Base Cases.

In transmission congestion analysis, Rating A (Normal Rating) is used for base case violations, and Rating B (Emergency or 2-hour Rating) is used for N-1 violations. Most planning transmission constraints are bound by an N-1 violation, which is by Rating B.

For some time we have noticed ERCOT planning cases using the same Rating A (Normal Rating) and Rating B (Emergency or 2-hour Rating). Logically, normal ratings should always be lower or equal to the Emergency ratings.

We checked the ERCOT SSWG planning power flow case (13DSA_2014_WIN1_TPIT_Final_10152013.raw) as a test and found the following:

Line Voltage (kV)	69	138	345
# of lines whose Rating A \neq Rating B	362	1044	108
# of lines whose Rating A = Rating B	1485	3181	466
Total Number of lines	1847	4225	574
% of lines with same Rating A & B	80.4%	75.3%	81.2%
For lines where Rating A \neq Rating B, average % of Rating B higher than Rating A	34.8%	20.3%	18.4%

This data indicates that there is already significant substitution occurring in the studies where the A Rating is being used instead of the B Rating, for whatever reason, resulting in a very conservative outcome in the studies. To layer on top of this factor another 5% reduction in the line ratings for planning purposes begs the question where these conservative biases should stop.

Revised Cover Page Language

None proposed at this time.

Revised Proposed Guide Language

None proposed at this time.