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| NPRR Number | [1070](http://www.ercot.com/mktrules/issues/NPRR1070) | NPRR Title | Planning Criteria for GTC Exit Solutions |
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| Comments |

EDF Renewables (EDFR) appreciates the opportunity to file comments and responses on Nodal Protocol Revision Request (NPRR) 1070, Planning Criteria for GTC Exit Solutions. The sponsors look forward to further discussion with stakeholders for the relevant issues.

The goal of this NPRR is to best align planning assumptions with operational practices and ensure that the benefit to cost comparison is capturing the appropriate impacts to society and customers as allowed by the Public Utility Commission of Texas (PUCT).

In response to Calpine’s filed comments and questions, there are some points EDFR would like to clarify. Answers are focusing on the comments that are most relevant to this NPRR, as some other points raised are outside the issue of aligning planning assumptions with Operations and of assessing any incremental value of transmission improvements that relieve Generic Transmission Constraints (GTCs). The following answers are provided to specific comments as shown below:

* “*The NPRR authors include no additional cost criteria in their proposed language but seek to bias economic transmission analysis with additional ’benefit’ criteria.*”

The sponsors seek to remove bias, not create it by aligning GTC-related planning assumptions with operational practices and by identifying the cost and benefits of GTC exit solutions.

* “*Moreover, there should be a conservative bias toward the costs of transmission project that are not justified under reliability criteria since once built, the costs of transmission are very certain; however, the benefits may be less than expected.*”

The sponsors do not agree that there should be a conservative bias towards costs. The cost/benefit analysis should be fair and unbiased, reflecting the impact as can be best estimated. Benefits may be less certain than costs (although costs estimates do have some uncertainty) but benefits may be more than expected, rather than less than expected. Example: An SPP back cast evaluating the benefit of upgrades using operational data showed “estimated benefits of production cost savings are significant and higher than planning model projections.” The report notes that Brattle Group has observed that “planners and policy makers do not consider the full range of benefits that transmission investments can provide and thus understate the expected value of such projects.”

https://www.spp.org/documents/35297/the%20value%20of%20transmission%20report.pdf

* *“Can screening studies be reformed to provide better information to developers?”*

The sponsors agree that better information further in advance is needed. That is a separate issue than how to evaluate solutions for existing issues. This question points to the need to support and modify NPRR1056, Market Impact Generic Transmission Constraint (GTC) Notification.

* *“Is ERCOT implementing dynamic tools that will mitigate the impact of Generic Transmission Constraints (GTCs) such as Voltage Security Assessment Tool enhancements?”*

The sponsors expect some slight changes in operational and forecast GTC limits, but that does not mitigate the impact or reduce the need for improved planning processes. In other words, the planning study assumptions will take into account any changes to the GTC limits from the implementation of VSAT.

* *“Is it practical for ERCOT to model future outages based on past outages?”*

There are several approaches that can be used for modeling future outages. Past outages can either inform sample year sensitivities or they can inform the statistical evaluation of outage rates and durations to generalize outage impacts. We suggest using the observed outage rates to create an expected limit reduction for the base scenario, and adding sensitivities with explicit outage patterns where appropriate. The NPRR leaves flexibility for ERCOT to determine the best approach for implementing grid outages in the GTC evaluation.

* *“ERCOT’s planning model include about 9200 different contingencies which are an alias to transmission outages?”*

Contingencies and Outages are not aliases. Outages are actual lines out of service which change system topology and shift factors. Contingencies are hypothetical potential future outages that affect Security-Constrained Economic Dispatch (SCED) at all times whether there are any actual outages or not. Operations must constantly enforce contingencies that create reserve margins on transmission lines to cover the risk that another line might go out of service suddenly, and planning models reflect these necessary constraints. In contrast, actual line outages intermittently impact system topology, change the set of contingencies, and reduce the limits of GTCs.

* *“Many of the long term outages in WEST zone (responsible for past derates to Panhandle GTC) were necessary to complete transmission upgrades to increase transfer capabilities of GTCs. Should this past data be used to justify derates to GTCs in the future?”*

The recent extensive long term outages impacting the Panhandle were due to repairs rather than upgrades. These types of outages should be considered in the overall rate of outages for lines, with an appropriate accounting of the probability for long term frequency. Outages due to upgrades are also real impacts and will occur in the future, so those should also factor into the overall expectation. The probability of outages related to grid upgrades or grid repairs is materially lower than grid-maintenance outages. Overall, this item is about having a realistic expectation of what grid outages are likely to occur on a typical year and ultimately what limits will most likely be experienced (and therefore would be avoided if a GTC were relieved).

* *“In practice how would ERCOT determine the avoided cost of reliability projects?”*

The sponsors also request an outline of ERCOT’s approach to evaluating avoided reliability projects.

* *“Are there revisions to the firm Load shed process that can mitigate the impact of GTCs if Load shed occurs?”*

This appears to be under discussion and any changes in Load shed processes should be included in the evaluation of the impact to generation availability and Load shed, but does not reduce the need to include the resulting impact.