

TO Responses to LKE LSE comments on use of 90/10 load forecast in TEP

1. Due to the unlikely nature of the extreme weather scenarios actually occurring, a cost-benefit analysis of each capital project intended to mitigate a constraint via shedding of firm load should be performed. The results of the C-B analysis should be reviewed with the potentially impacted Transmission Customers.

A 90/10 load forecast does represent a scenario that can be reasonably anticipated to occur. By definition, load will reach these levels in one out of ten years in the future which is the time frame analyzed in the annual Transmission Expansion Plan. As explained at the stakeholder meeting, the 2014 polar vortex was a recent event that had a lower probability of occurring than ten percent. It is also important to note that mitigating constraints based on the 90/10 load forecast provides not only reliability benefits to customers at those load levels but also at load levels between the 50/50 load forecast (which is the load level currently planned to) and the 90/10 load forecast.

The NERC TPL Reliability Standards and the LG&E/KU Planning Guidelines do not require a cost-benefit analysis for long term transmission planning corrective action plans. Analysis includes selection of least cost solutions to mitigate identified deficiencies and is driven by good engineering practices to ensure system reliability.

2. Due to the unlikely nature of the extreme scenarios actually occurring plus the inherent unknowns/variables/errors in the model inputs – some “deadband” or tolerance should be considered before triggering a capital project to mitigate a constraint. Eg. for a small exceedance of a thermal rating (say 5%) that necessitates a capital project – the 5% exceedance might be considered within the error “deadband” of the model’s inputs and the unlikely occurrence of extreme weather.

A dead band as described to account for modeling errors is not a normal industry practice nor is it considered in NERC reliability standards. LG&E and KU do not agree that a dead band as described would be appropriate for the purposes of long term reliability planning.

3. 90/10 planning must be coordinated with interconnected entities. It should not be assumed that other entities will have resource and transmission capacity available to assist LKE under extreme conditions.

As detailed in the Planning Assessment Report that was made available to stakeholders for review, the TO performs analysis on multiple generation dispatch scenarios and does not rely solely on an import from other entities in its analysis.

4. In a 90/10 scenario where an LSE has also experienced a significant resource contingency, the affected LSE could request an EEA2 as per Attachment 1 of EOP-011-1. Has assistance (resource and/or transmission service) rendered via the EEA process been considered in the resolution of potential transmission constraints?

No, the EEA process is for managing resource constraints in real time operations, not transmission overloads. It is not an appropriate alternative for mitigating deficiencies in long term transmission plans.

5. For a capital project required to mitigate firm load shed in the 90/10 scenario – what other benefits would the project provide? Reduced congestion/losses? Improvements to ATC? Avoidance or delay of other capital projects?

A project identified as a result of the 90/10 load forecast analysis could potentially provide benefits for all of the above.

6. What is the potential cost impact on LG&E transmission rates due to capital projects required to mitigate firm load shed under the 90/10 scenario?

LG&E and KU do not provide estimates of future rates based on individual projects. The OATT Rate Protocols outline the process for requesting rate related information. You can find these Protocols in Exhibit I of Attachment O.