

01/06/2021 ICS Meeting

ICS 2021 White Paper SCOPE (DRAFT)

Examination of Transmission Security Limits* in the IRM Study

Study Purpose and Summary

Due to concerns that arose during the review of 2021 IRM and LCR results regarding inconsistencies between TAN-45 and Alternative LCR results, the NYSRC Executive Council directed that the ICS investigate parameters and method differences between the two analyses that have contributed to significant differences between LCR determinations and TAN-45 results. ~~Both the NYISO method and the tan 45 method seek to establish minimum requirements for the J and K localities. The NYISO method stems from operational concerns~~ a probabilistic optimization of the amount of capacity required in each Locality but also and is based on ~~incorporates a deterministic approach to the minimum amount of capacity that can be allowed in each Locality (the Transmission Security Limit "TCL" based minimum). The tan 45 method is geared toward determining a designed or planning value(s) and is based on a probabilistic approach without the application of any deterministically determined minimum capacity level for a Locality. For example, one area of investigation could be whether or not the current Tan45 method can, or should, implement constraints that are present in LCR analysis, such as transmission security limit.~~

Study Scope

The study will undertake the following four areas of inquiry:

- Investigate the methodology that the NYISO uses in setting the operational locational floors including the assumptions used*. ~~Compare it to the preliminary minimum locational requirements found in the IRM study, inconsistencies resulting from applying TSL in the Optimizer in the NYISO's process to set LCRs and not in the NYSRC's TAN-45 process for setting the IRM~~
- Examine if a minimum operational limit is appropriate for the IRM analysis, and if so, how it could a TSL be incorporated into the setting of the IRM
- Analyze the impacts to the IRM of incorporating the existing TSL into the IRM calculation
- The analysis will also consider whether the Lower Hudson Valley should be included in the IRM setting process if time is available

If the tan 45 method is found lacking in its determination of the IRM due to LCR differences, explore how a TSL method could be incorporated. ~~a~~ For example, if it is found that the interface constraints coming from the operational method are different from the constraints applied in the IRM model, what remedies could be taken. ~~TSL is determined to be appropriate in the IRM Study, investigate the appropriate method of determining the TSL.~~

Study Schedule

This study will be completed by May 2021.

* NYSIO's TSL report identifies operational import constraints into localities and combines that

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those results with the Locality peak load and average EFORD for a Locality to determine the minimum required capacity level. Other factors are used to arrive at the LCR floor.

