Securing 100+kV Transmission Facilities in the Market Model: Timeline Update

Targeted Date	Event
February/ March 2018	Began securing two Browns Falls-Taylorville (3/4) and two Taylorville-Boonville (5/6) facilities in the Spring 2018 TCC auction.
June13, 2018 2018	Presented proposed mitigation measures to stakeholders.
By May 5, 2018	Began securing two Browns Falls-Taylorville (3/4) and two Taylorville-Boonville (5/6) facilities in the energy market model.
By August 7, 2018	Provide update confirming the facilities that will be secured starting November 2018 in the Autumn TCC market auction and the NYISO energy market.
September 12, 2018	Securing 100+kV Transmission Facilities in the Market Model: Market Design Complete BIC presentation.
By November 30, 2018	Targeting to begin securing four facilities identified for November 2018 in the energy market models.
By December 31, 2018^	Targeting to begin securing eighteen facilities identified for December 2018 in the energy market models.

^Niagara modeling enhancements under development may delay securing these facilities in the market models by the targeted deadline.

Overview

The NYISO has posted the initial list of future 100+kV facilities to model as secured in the market software. The timeline and descriptions within this update are intended to provide a further update to the information that was posted with the February 21, 2018 MIWG materials for the Securing 100+kV Transmission Facilities in the Market Model project.

Niagara Modeling Enhancements

Facilities impacted by the Niagara modeling updates are currently targeted to be secured in the energy market by December 31, 2018. The NYISO provided further information regarding the Niagara Modeling Enhancements at the July 24, 2018 MIWG.

Breaker Modeling Enhancements

The modeling of some facilities is impacted by breakers that are modeled as normally open; a topology change is needed to split the bus in these instances. The NYISO will seek to minimize inconsistencies between the Energy market and the TCC market when modeling these facilities. The NYISO will confirm for MPs in early August, no later than August 7, 2018 if the NYISO will secure these facilities in the Energy Market and Autumn 2018 Centralized TCC auction starting in November 2018.

Facilities "Not Proposed to Add at this Time"

Network topology solutions, such as load switching and line sectionalization, cannot currently be modeled in the market software, and software upgrades that would be required to effectuate this solution would necessitate a

prioritized project effort to implement. This would require the use of an outside vendor, and could not be implemented until after the EMS/BMS Upgrade project. Stakeholders should let the NYISO know if they would like a project included within the project prioritization process to allow the NYISO to secure facilities that require network topology solutions. A switching solution is in place by the Transmission Owner to secure the 141 Dunkirk-Gardenville, 142 Dunkirk-Gardenville, 1 Albany- Greenbush and 2 Albany-Greenbush facilities. However, for the 1 Albany- Greenbush and 2 Albany-Greenbush facilities, a transmission upgrade by the local Transmission Owner planned to take place by summer 2019 means that the Albany-Greenbush circuits are not expected to require continued out of market actions in the future.

Constraint Reliability Margin

As the NYISO continues to consider inclusion of certain 115 kV facilities with lower thermal ratings (relative to 230 kV and higher facilities) into its dispatch, a 20 MW CRM can often represent a significant percentage of the facility limits. The NYISO presented a proposed tariff update that would permit the use of a non-zero constraint reliability margin (CRM) that is less than 20 MW at the June 13, 2018 and July 18, 2018 MIWG meetings. The ability to apply a CRM value less than 20 MW will facilitate the continued pricing of smaller 115 kV facility constraints.

Mitigation Rule Enhancements

The NYISO presented proposed 100+kV mitigation rules to stakeholders at the June 13, 2018 MIWG meeting, concluding that mitigation rules tied to the 100+kV project are not worthwhile to pursue at this time.[1] Market simulations conducted by the NYISO's Market Monitoring and Analysis department identified three areas of possible concern: Reliability Committed Resources, Traditional Load Pockets, and Uneconomic Over-production.

Reliability Committed Resources

Reliability committed resources not in a Constrained Area are currently subject to a mitigation threshold of $10 or 10%, which is assessed by the NYISO after the market software determines prices and schedules. After 115kV lines are secured, certain resources could become pivotal suppliers, and have the ability to set the price of new local 115kV constraints. The NYISO would need to modify MST Section 23.3.1.2.3.3 and to develop necessary software improvements to ensure that generators committed for reliability outside the NYISO's economic merit order selection process would be mitigated according to reference prices before prices and schedules are established by the market software.

Only two lines of the 30 originally identified (Gardenville/ Cloverbank, 141/142), would require the described mitigation rule enhancements in order to be secured. Because Gardenville/ Cloverbank, 141/142 are secured by line sectionalization by the local TO, which cannot be accurately represented in the NYISO's market model, the NYISO does not plan to secure these facilities in the market model at this time.

Traditional Load Pockets

Securing the Gardenville/Cloverbank facilities could also create load pocket concerns. Given that only these two facilities were identified as potential contributors to load pocket concerns, and given that these facilities are not proposed to be modeled at this time, the NYISO proposes not to pursue mitigation rule changes for load pockets. Instead, the NYISO proposes to monitor load pocket concerns, and pursue related mitigation rule changes if additional facilities in the future are unable to be modeled in the absence of mitigation rule changes.

Uneconomic Over-production

Uneconomic over-production occurs when a resource's output is increased to levels that would otherwise be uneconomic in order to cause, and obtain benefits from, a transmission constraint. I Instead of pursuing uneconomic over-production rule changes as part of the 100+kV project, the NYISO will begin discussions with stakeholders later in 2018 to address uneconomic over-production more broadly.

[1] Link to the June 13, 2018 presentation:
http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials/2018-06-13/115_market_power_vFINAL.pdf