



NYISO Process for Determining Secured Facilities in the Market Models

Consistent with the NYISO's responsibility to ensure reliable operation and efficient market outcomes, the following process is utilized to identify and evaluate facilities that should be secured in the Business Management System (BMS) Day-Ahead and real time market models. The NYISO is the Transmission Operator (TOP) responsible for operating and securing the transmission system 230kV and above, which is typically done in the market models. The NYISO has worked with Con Ed and LIPA to include their respective 138 kV facilities in the BMS market models to facilitate congestion management improvements in those franchise areas. The NYISO expects there may be additional congestion management opportunities to modeling other 100+ kV facilities throughout the state for those facilities that often require manual action to secure.

- 1) Identify candidate transmission facilities to be secured including expected contingencies
 - a. The NYISO shall evaluate all transmission facility thermal constraints that require out of market actions to operate reliably such as DARU/SRE/Out of Merit operation of a NYCA generating resource, Applications of Reliability Rules (ARRs), modification of external TTC limits, Phase Angle Regulator (PAR) adjustments, or interchange transaction contract curtailments.
 - b. The NYISO shall review with the local Transmission Operator (TOP) the facility constraints to be secured in the BMS market models. The NYISO and local TOP will determine whether additional operating actions are used to secure the facility (e.g. load switching, station bus sectionalizing, phase angle regulator action, etc.).
 - i. If the actions that the local TOP will take to secure the facility cannot be adequately represented in the BMS market models, then the facility under consideration shall not be secured in the BMS market models until such actions can be adequately represented
 - c. Before considering a facility to be modeled as secured in the market models, the NYISO shall verify that facility constraint flow development in the BMS market models is consistent with expected EMS actual constraint power flows. This step shall ensure that the market models accurately reflect expected power flows over the transmission facilities to be secured (e.g. market model flows are expected to be within 5% of EMS flows).
 - i. If constraint flow development in the BMS market models is not consistent with EMS actual constraint power flows, then the facility under consideration shall not be secured in the BMS market models until such constraint flows can be adequately represented

- 2) Confirm efficient solution options are expected to be available to the BMS market models to secure the thermal constraints in the market model.
 - a. The NYISO shall verify that NYCA resources are available with a greater than or equal to 5% generator shift factor on the constraint, and that those resources, are capable of establishing an appropriate shadow price in the SCUC/RTC/RTD market models.
 - i. A generation shift factor of 5% is consistent with the North American Electric Reliability Corporation (NERC) Transmission Loading Relief (TLR) procedure that is used for interchange transaction contract curtailments and is considered by the NYISO to provide effective relief of a constraint
 - b. The NYISO shall evaluate whether any NYCA resources necessary to solve the facility constraint could result in an exercise of market power if the facility is implemented in the BMS market models. If so, the NYISO shall determine if there are existing mitigation rules in place to effectively address the market power issues. If there are no effective mitigation rules in place, the facility will continue to be secured using local TOP operating actions and be subject to the NYISO's existing market power mitigation rules (e.g. Rest-of-State Reliability Mitigation Rules).
 - i. If existing mitigation rules are not in place to address such market power issues, then the facility under consideration shall not be secured in the BMS market models until further mitigation rules are developed
- 3) Identify system changes that could trigger the removal of a facility as secured in the market models
 - a. The NYISO shall consider topology changes that make it no longer necessary to secure a given facility within the market models. No longer securing a facility in the market models in these instances ensures that solve times are kept within acceptable limits while ensuring that the most important facilities are included.
 - i. For example, the frequent OOMs that originally triggered securing of the facility in the market models could be resolved by transmission facility or generator upgrades.
- 4) Communicate to stakeholders that the transmission facility thermal constraints are now being secured, or is no longer secured, within the BMS market models.
 - a. The NYISO shall include an additional column within Attachment A of the Outage Scheduling Manual to indicate that a given facility is secured within the market models
 - b. Future TCC auctions shall normally represent the facility as ISO Secured after the facility is modeled as secured in the Day-Ahead Market.

Appendix: Initial List of Facilities to be considered for Securing in the Market Models

Zone	PTID	Limiting Facility - lower kV	Example(s) of Typical Contingency Event(s) that would cause a Limiting Facility to Bind	Secured before or after EMS/BMS Project Deployment
West	25267	101 Niagara-Lockport	NR2 Niagara-Rochester or SR1-39 Kintigh-Rochester	
West	25103	102 Niagara-Lockport	NR2 Niagara-Rochester or SR1-39 Kintigh-Rochester	
West	25104	180 Niagara-Gardenville	TWR Packard 77/78 (Packard Sawyer)	
West	25075	191 Niagara Packard	192 Niagara-Packard	
West	25099	192 Niagara Packard	TWR Niagara 61 & 191	
West	25100	193 Niagara Packard	SCB 1414 Niagara (BK T2 & 195)	
West	25101	194 Niagara Packard	SCB 1414 Niagara (BK T2 & 195)	
West	25102	195 Niagara Packard	193 Niagara-Packard or 194 Niagara-Packard	
West	25409	Niagara BK T1	TWR Packard 77/78 (Packard Sawyer)	
West	25410	Niagara BK T2	TWR Packard 77/78 (Packard Sawyer)	
West	26059	130 Packard-Huntley	base case	
West	25906	129 Packard-Walck Rd	base case	
West	26055	181 Packard- Erie St	TWR Packard 77/78 (Packard Sawyer)	
West	26056	182 Packard-Gardenville	TWR Packard 77/78 (Packard Sawyer)	
West	25414	Packard BK3	NR2 Niagara-Rochester or SR1-39 Kintigh-Rochester	
West	26153	133 Huntley Zimmerman	TWR Packard 77/78 (Packard Sawyer)	
West	26047	38 Huntley-Gardenville	TWR Packard 77/78 (Packard Sawyer)	
West	26044	39 Huntley-Gardenville	TWR Packard 77/78 (Packard Sawyer)	
West	26038	141 Dunkirk-Gardenville	TWR 73 & 74 Dunkirk-Gardenville	
West	26037	142 Dunkirk-Gardenville	TWR 73 & 74 Dunkirk-Gardenville	
Genesee	25096	24 Mortimer-Pannell	RP1 Rochester-Pannell or RP2 Rochester-Pannell	
Genesee	25095	25 Mortimer-Pannell	RP1 Rochester-Pannell or RP2 Rochester-Pannell	
Central	25080	977 Farmington-Border City	1 Pannell-Clay or 2 Pannell-Clay	
North	26076	3 Browns Falls-Taylorville	7040 Chat-Massena & MSU1 Massena-Marcy or 4 Browns Falls-Taylorville or TWR Moses MA1/MA2	
North	26077	4 Browns Falls-Taylorville	7040 Chat-Massena & MSU1 Massena-Marcy or 3 Browns Falls-Taylorville or TWR Moses MA1/MA2	
North	26075	5 Taylorville-Boonville	6 Taylorville-Boonville	
North	26070	6 Taylorville-Boonville	5 Taylorville-Boonville	
Capital	25860	1 Albany -Greenbush	2 Albany -Greenbush	
Capital	25868	2 Albany -Greenbush	1 Albany -Greenbush	
Capital	26122	15 Mohican-Battenkill	1 Spier Falls-Rotterdam or 2 Spier Falls-Rotterdam	