

# Securing 100+kV Transmission Facilities in the Market Model

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**Market Issues Working Group**

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# Agenda

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- Add/Remove Facilities Procedure
- February 6, 2018 Market Update
- DA Posting Time Impact
- Facilities List
- Timeline

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# Add/Remove Facilities Procedure

# Final Add/Remove Facilities Procedure

- The final add/remove facilities procedure has been posted to today's meeting materials.
  - The NYISO is currently executing the process to identify facilities using the procedure.

# Add/Remove Facilities Procedure

- **A 20 MW CRM will be applied to facilities implemented prior to completion of the EMS/BMS upgrade project.**
  - For facilities secured after the implementation of the EMS/BMS project, the NYISO will use the applicable CRM and transmission demand curve values determined as part of the Constraint Specific Demand Curve project.

# Add/Remove Facilities Procedure

- **For the mitigation section of the add/remove procedure:**
  - Facilities secured before deployment of the EMS/BMS project will be subject to current mitigation rules.
  - Some facilities may result in market power concerns (NYISO is still studying this concern) not addressed by the current rules in the NYISO tariffs.
    - The NYISO will work with stakeholders over the coming months to augment current market mitigation rules, as needed.

# **Add/Remove Facilities Procedure**

- **As part of a posting in late March, the NYISO will identify which facilities are planned to be added before the EMS/BMS deployment, after the EMS/BMS deployment, or not added.**



# February 6, 2018 Market Update

# Identified Facilities

- **The NYISO has identified four 115kV elements that we anticipate will be modeled as secured in the energy markets starting Q2 2018.**
  - These facilities are the two Browns Falls – Taylorville lines (3/4), as well as the two Taylorville – Boonville (5/6) lines identified in the facilities list at slide 18.
  - Upon securing these facilities, the NYISO will update Outage Scheduling Manual Attachment A with an additional column to indicate that the facility is secured in the energy market model.

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# Additional Pre-EMS/BMS Facilities

- The timing for reflection of any additional facilities in future TCC auctions will be part of ongoing discussions with stakeholders.
- Due to the need for modeling improvements, the NYISO currently does not anticipate securing additional facilities within the energy market model prior to November 1, 2018.
  - Enhancements to the Niagara modeling must be incorporated prior to securing the majority of identified lower kV Western facilities in the market models.
  - Additional network modeling improvements are also needed.

# DAM Posting Time Impact

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- **The NYISO will begin securing a select number of 100+kV facilities in Q2 2018.**
  - Gradually adding facilities will allow for flexibility in understanding the impact to the DA posting time.

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# DAM Posting Time Impact

- The NYISO recommends that the following project be considered for prioritization in 2019:

## Energy Market Software Performance

This effort will consider methods to enhance the performance of the market software algorithm itself, rather than changes to market products or rules. The EMS/BMS Upgrade project has provided an updated platform for the market software. The NYISO has completed a number of market design efforts since the start of the EMS/BMS project, and reviewing methods to increase market software performance will provide more information to the NYISO and its stakeholders about possible benefits.

# Facilities List

# Facilities List

- **The list of the facilities on slide 18 will be subject to the NYISO's process to add lower kV facilities as secured in the market model.**
  - Depending on the outcome of this process, these facilities will be:
    - Added before the EMS/BMS deployment
    - Added after the EMS/BMS deployment, or
    - Not added
  - The NYISO will provide an explanation as to why a facility falls into one of the above categories.



# Facilities List

- **Facilities on the next slide are identified consistent with Outage Scheduling Manual attachment A\***
  - In some cases, there are multiple segments within each of these facilities.
  - When a particular facility is added to the market model, the NYISO intends to secure the most limiting of these segments in the energy market model and TCC market model.
  - The PTIDs on the next slide are associated with only one of the facility segments
    - One of the facility segments will be placed through the process to add new facilities; this segment may or may not correspond to a PTID on the next slide.

\*Link to Outage Scheduling Manual Attachment A:

[http://www.nyiso.com/public/webdocs/markets\\_operations/documents/Manuals\\_and\\_Guides/Manuals/Operations/Child\\_outage\\_sched\\_mnl/M-29\\_Outage%20Scheduling\\_Att%20A.pdf](http://www.nyiso.com/public/webdocs/markets_operations/documents/Manuals_and_Guides/Manuals/Operations/Child_outage_sched_mnl/M-29_Outage%20Scheduling_Att%20A.pdf)

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Zone	PTID	Equipment Name	From Bus Name	To Bus Name	Limiting Facility - lower kV	Example(s) of Typical Contingency Event(s) that would cause a Limiting Facility to Bind
West	25267	101	NIAGARA	LOCKPORT	101 NIAGARA-LOCKPORT	NR2 Niagara-Rochester or SR1-39 Kintigh-Rochester
West	25103	102	NIAGARA	LOCKPORT	102 NIAGARA-LOCKPORT	NR2 Niagara-Rochester or SR1-39 Kintigh-Rochester
West	25104	180	NIAGARA	GARDENVILLE	180 NIAGARA-GARDENVILLE	TWR Packard 77/78 (Packard Sawyer)
West	25075	191	NIAGARA	PACKARD	191 NIAGARA-PACKARD	192 Niagara-Packard
West	25099	192	NIAGARA	PACKARD	192 NIAGARA-PACKARD	TWR Niagara 61 & 191
West	25100	193	NIAGARA	PACKARD	193 NIAGARA-PACKARD	SCB 1414 Niagara (BK T2 & 195)
West	25101	194	NIAGARA	PACKARD	194 NIAGARA-PACKARD	SCB 1414 Niagara (BK T2 & 195)
West	25102	195	NIAGARA	PACKARD	195 NIAGARA-PACKARD	193 Niagara-Packard or 194 Niagara-Packard
West	25409	AT1	NIAGARA	NIAGARA	AT1 NIAGARA-NIAGARA	TWR Packard 77/78 (Packard Sawyer)
West	25410	AT2	NIAGARA	NIAGARA	AT2 NIAGARA-NIAGARA	TWR Packard 77/78 (Packard Sawyer)
West	26059	130	PACKARD	HUNTLEY	130 PACKARD-HUNTLEY	base case
West	25906	129	PACKARD	WALCK RD	129 PACKARD-WALCK RD	base case
West	26055	181-922	PACKARD	ERIE ST.	181-922 PACKARD-ERIE ST.	TWR Packard 77/78 (Packard Sawyer)
West	26056	182	PACKARD	GARDENVILLE	182 PACKARD-GARDENVILLE	TWR Packard 77/78 (Packard Sawyer)
West	25414	BK 3	PACKARD	PACKARD	BK 3 PACKARD-PACKARD	NR2 Niagara-Rochester or SR1-39 Kintigh-Rochester
West	26153	133	WALCK RD	HUNTLEY	133 WALCK RD-HUNTLEY	TWR Packard 77/78 (Packard Sawyer)
West	26047	38	HUNTLEY	GARDENVILLE	38 HUNTLEY-GARDENVILLE	TWR Packard 77/78 (Packard Sawyer)
West	26044	39	HUNTLEY	GARDENVILLE	39 HUNTLEY-GARDENVILLE	TWR Packard 77/78 (Packard Sawyer)
West	26038	141	GARDENVILLE	DUNKIRK	141 GARDENVILLE-DUNKIRK	TWR 73 & 74 Dunkirk-Gardenville
West	26037	142	GARDENVILLE	DUNKIRK	142 GARDENVILLE-DUNKIRK	TWR 73 & 74 Dunkirk-Gardenville
Genesee	25096	24	MORTIMER	STA 122	24 MORTIMER-STA 122	RP1 Rochester-Pannell or RP2 Rochester-Pannell
Genesee	25095	25	MORTIMER	STA 122	25 MORTIMER-STA 122	RP1 Rochester-Pannell or RP2 Rochester-Pannell
Central	25080	4-977	STA 122	BORDER CITY	4-977 STA 122-BORDER CITY	1 Pannell-Clay or 2 Pannell-Clay
North	26076	3	BROWNS FALLS	TAYLORVILLE	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	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	5 TAYLORVILLE-BOONVILLE	6 Taylorville-Boonville
North	26070	6	TAYLORVILLE	BOONVILLE	6 TAYLORVILLE-BOONVILLE	5 Taylorville-Boonville
Capital	25860	1	ALBANY	GREENBUSH	1 ALBANY-GREENBUSH	2 Albany -Greenbush
Capital	25868	2	ALBANY	GREENBUSH	2 ALBANY-GREENBUSH	1 Albany -Greenbush
Capital	26122	15	MOHICAN	BATTENKILL	15 MOHICAN-BATTENKILL	1 Spier Falls-Rotterdam or 2 Spier Falls-Rotterdam

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# Timeline

# Tentative Timeline

- **March 2018**
  - Identify initial set of facilities to be secured before EMS/BMS project deployment and after EMS/BMS project deployment.
- **February/ March 2018**
  - Spring 2018 auction for:
    - Two Year TCCs effective from 5/1/2018 to 4/30/2020
    - One Year TCCs effective from 5/1/2018 to 4/30/2019
    - Six Month TCCs effective from 5/1/2018 to 10/31/2018
- **April 2018/ June 2018**
  - Present proposed mitigation measures to stakeholders.
  - Present draft tariff language to stakeholders.
- **Q2 2018**
  - Begin securing two Browns Falls-Taylorville (3/4) and two Taylorville-Boonville (5/6) in the energy market model.
- **Q3 2018**
  - Vote to approve the market design and tariff language for “Securing 100+kV Transmission Facilities in the Market Model” project.
- **Not before November 1, 2018**
  - Secure remaining applicable pre-EMS/BMS upgrade facilities.
- **2019**
  - Deploy EMS/BMS system upgrades.
- **After 2019 EMS/BMS Project Deployment**
  - Implement Constraint Specific Demand Curves.\*
  - Secure remaining applicable 100+kV Transmission Facilities in the Market Model.\*

\*Subject to Stakeholder, NYISO Board of Directors, and FERC approval

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# The Mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public interest and provide benefits to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policy makers, stakeholders and investors in the power system



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