



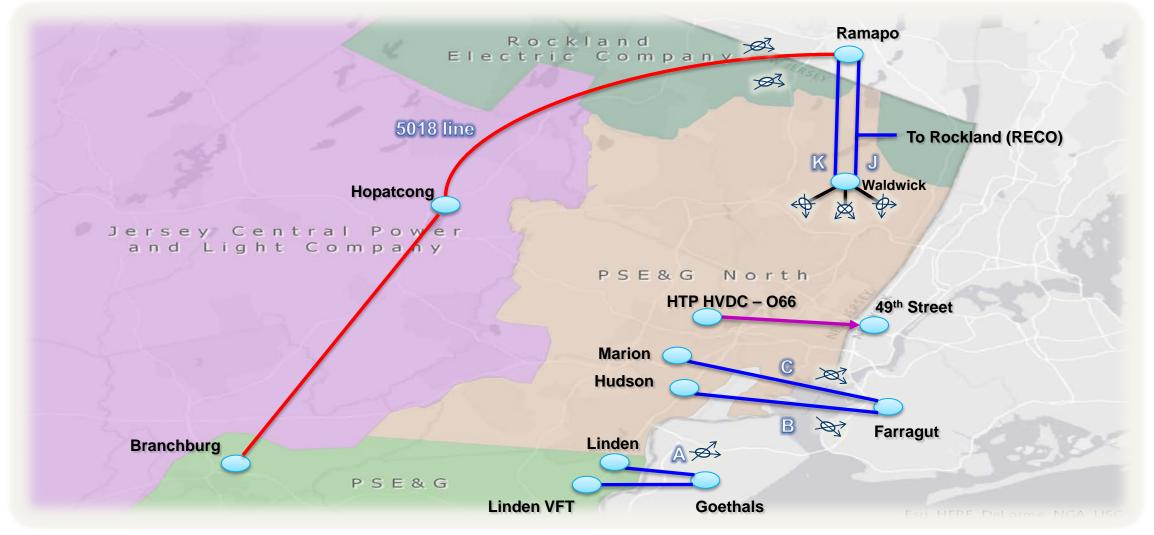
Notice to Eliminate 400 MW OBF

Phil D'Antonio
Manager, Interregional Market
Operations
Joint PJM/NYISO Meeting
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PJM/NYISO PAR Coordination





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PJM/NYISO PAR Coordination



- PJM/NYISO PAR Coordination process replaced the PSE&G/ConEd Wheel on May 1, 2017
- PAR Coordination process includes the following:
 - An Operational Base Flow (OBF) as a starting point 400 MW
 - An AC Interchange percentage distribution:
 - 5018: 32%
 - JK: 15%
 - ABC: 21%
 - RECO Load:
 - 80% applied to the 5018 Target Flow
 - 20% considered to flow over Western ties



Operational Base Flow (OBF)



- OBF shall mean an equal and opposite MW offset of power flows over the Waldwick PARs and ABC PARs to account for natural system flows over the JK Interface and the ABC Interface in order to facilitate the reliable operation of the NYISO and/or PJM transmission systems
- The OBF was implemented as a short term solution designed to provide PJM and NYISO operators with additional operational flexibility as they coordinate the PAR Coordination process
- Only applied to the JK and ABC interfaces

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PJM/NYISO PAR Coordination Interfaces



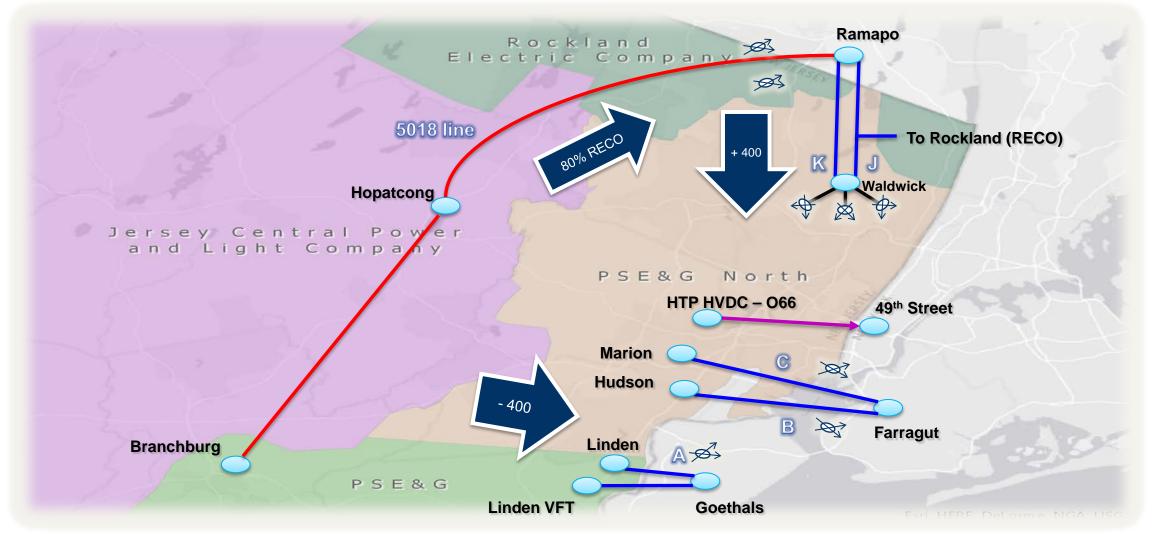
PAR Coordination Interfaces:

- 5018 Interface: Hopatcong Ramapo 500 kV line
- J & K Interface:
 - Waldwick South Mahwah Ramapo 345 kV lines
 - Waldwick Hawthorne E-2257
 - Waldwick Hillsdale F-2258
 - Waldwick Fairlawn O-2267
- ABC Interface:
 - A: Linden Goethals 230 kV line
 - B: Hudson Farragut 345 kV line
 - C: Marion Farragut 345 kV line



PJM/NYISO PAR Coordination





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AC Interchange/OBF Target Flow Example



Assumptions:

- Net AC interchange to NYISO = 1,000 MW
- RECO load = 300 MW
- RECO load treatment:
 - 80% applied to 5018
 - 20% flows over western PJM/NYISO ties
- Operational Base Flow: 400 MW
- Applied Interface percentages:
 - 5018 32%
 - JK 15%
 - ABC 21%
- Western Ties: 32% of net AC Interchange



AC Interchange/OBF Target Flow Example



- 5018 = 560 MW to NYISO 32% of AC Interchange plus 80% RECO load
- JK = 250 MW to PJM
 15% of AC Interchange minus 400
 MW OBF
- ABC = 610 MW to NYISO
 21% of AC Interchange plus 400
 MW OBF
- Western Ties = 380 MW
 32% of AC Interchange plus 20%
 RECO load

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Elimination of OBF



- Bergen Linden Corridor (BLC) 345 kV project was developed in 2013 through PJM's RTEP process to address short circuit issues in northern New Jersey
 - PJM December 11, 2013 Whitepaper details need for the BLC project: http://pjm.com/-/media/committees-groups/committees/teac/20131211/20131211-december-2013-pjm-board-approval-of-rtep-whitepaper.ashx
- 2021 Planning studies performed during 2016 indicated that the OBF would not be needed
 - Due in part to the BLC project
- BLC project scheduled for completion on June 1, 2018



Notice to Eliminate 400 MW OBF



- The PJM/NYISO JOA allows for the OBF to be modified no sooner than two years after mutual agreement
 - September 8, 2017: PJM submitted a request to take the OBF to zero
 - September 29, 2017: NYISO agreed to reduce the OBF to zero in coordination with PJM
 - PJM and NYISO have mutually agreed to reduce the OBF to zero on October 31, 2019



AC Interchange Target Flow Example



Assumptions:

- Net AC interchange to NYISO = 1,000 MW
- RECO load = 300 MW
- RECO load treatment:
 - 80% applied to 5018
 - 20% flows over western PJM/NYISO ties
- Operational Base Flow: 0 MW
- Applied Interface percentages:
 - 5018 32%
 - JK 15%
 - ABC 21%
- Western Ties: 32% of net AC Interchange



AC Interchange Target Flow Example



- 5018 = 560 MW to NYISO
 32% of AC Interchange +
 80% RECO load
- JK = 150 MW to NYISO
 15% of AC Interchange
- ABC = 210 MW to NYISO
 21% of AC Interchange
- Western Ties = 380 MW to NYISO
 32% of AC Interchange + 20% RECO load

