

# Order No. 764 Compliance

## Presenters

*Alex Schnell and James Sweeney  
New York Independent System Operator*

## MIWG

*November 1, 2013  
Rensselaer, NY*

# VER Order

## Compliance Requirements

- ◆ **Two main compliance requirements:**
  - ***Variable Energy Resource (VER) data reporting requirements***
    - Order modifies *pro forma* LGIA to include new VER data reporting requirements
  - ***Scheduling external Proxy Generator Buses on a 15 minute basis, with ability to modify schedules intra-hour***

# Order 764 *Pro Forma* LGIA Amendments

- ◆ Three Components
  - *Variable Energy Resource Definition*
  - *Provision of Meteorological Data*
  - *Provision of Forced Outage Data*

# Order 764 VER Definition

- ◆ Order specifies a definition of “Variable Energy Resource” to be included in *pro forma* LGIA
- ◆ NYISO’s Compliance Filing will merge the FERC defined term into the NYISO’s existing defined term “Intermittent Power Resource”
- ◆ Definition will remain in Services Tariff and OATT

# Revised NYISO Definition

- ◆ Intermittent Power Resource: ***A device for the production of electricity that is characterized by an energy source that: (1) is renewable; (2) cannot be stored by the facility owner or operator; and (3) has variability that is beyond the control of the facility owner or operator.*** In New York resources that depend upon wind, solar energy or landfill gas for their fuel have been classified as Intermittent Power Resources. Each Intermittent Power Resource that depends on wind as its fuel shall include all turbines metered at a single scheduling point identifier (PTID).

# Order 764 Meteorological Data

- ◆ Order includes new section of *pro forma* LGIA requiring meteorological data be provided to ISOs
  
- ◆ New Section requires:
  - *Wind Generators to provide:*
    - Site-specific temperature, wind speed, wind direction and atmospheric pressure data
  
  - *Solar Generators to provide:*
    - Site-specific temperature, atmospheric pressure and irradiance data

# NYISO's Wind Energy Forecast

- ◆ Order 764's intent is for data to be provided to the extent necessary for power production forecasts for that class of Variable Energy Resource
- ◆ NYISO already receives data for and utilizes a Wind Energy Forecast
  - *Services Tariff Section 5.8.1 requires Wind Generators to provide wind speed and wind direction data to the NYISO*

# Reporting

## Maximum Available MWs

- ◆ Add a requirement to Services Tariff Section 5.8.1 that Wind Generators provide the NYISO with Maximum Available Megawatt Data
- ◆ Maximum available MWs language in the tariff will be similar to Sections 1.1 and 3.3.1 of the Wind Plant Operator Data Guide



# Solar Energy Forecasting in NY

- ◆ NYISO does not have sufficient levels of solar generation to warrant engaging in power production forecasting for solar resources yet
- ◆ NYISO will prepare solar power production forecast when there is enough solar generation to warrant such a forecast
  - *NYISO will file tariff revisions at that time specifying the data provision requirements for solar resources*
  - *NYISO will likely require production of temperature, pressure and irradiance data, consistent with Order 764's requirements*

# Order 764 Forced Outage Data

- ◆ Order includes new section of *pro forma* LGIA requiring forced outage data be provided to ISOs
- ◆ New Section requires all VERs to provide forced outage data to the extent necessary for power production forecasts
- ◆ NYISO's existing Tariff satisfies the Order

# NYISO's Forced Outage Data Requirements

- ◆ Market Services Tariff Section 3.5.2 requires:
  - *Customers to “inform the ISO ... of the Availability of Generators within the NYCA subject to a Customer’s control by Energy contract, ownership or otherwise.”*
  - *Suppliers to provide data on Generator status and output including maintenance schedules, Generator scheduled return dates (inclusive of return to service from maintenance, forced outages ...)*
- ◆ NYISO is not proposing any changes to the existing Tariff and procedures

# Scheduling at External Proxy Generator Buses

- ◆ Order 764 requires 15 minute scheduling of imports/exports, with ability to change import/export schedules on 20 minutes notice
  - *The Order does not change scheduling or dispatch rules for internal (NYCA) resources*
- ◆ The Commission's OATT modifications are tailored to an Order No. 888 physical reservations system
- ◆ The Order permits requests to continue previously approved variations from *pro forma* OATT scheduling rules, or submission of alternative proposals

# NYISO Compliance

- ◆ NYISO already schedules on a 15 minute basis at its PJM and HQ borders
- ◆ NYISO will start scheduling on 15 minute basis with ISO-NE when CTS becomes effective
  - *Expected Q4, 2015*
- ◆ NYISO and IESO have discussed 15 minute scheduling several times over the past year. IESO has not yet committed to implementing 15 minute scheduling, or to an implementation date

# CTS with PJM Real-Time Scheduling Improvements

- ◆ At Variably Scheduled Proxy Generator Buses NYISO will permit MPs to submit import and export (im/ex) transaction offers with different bid curves and different MW amounts for each quarter-hour of an upcoming hour
  - *Bids must still be submitted 75 minutes in advance of the real-time operating hour*
- ◆ NYISO will begin evaluating im/ex offers 30 minutes before real-time operations and issue schedule 15 minutes before real-time; a 15 minute improvement
- ◆ These improvements are expected to take effect at PJM and HQ in Q4, 2014, and with ISO-NE in Q4, 2015

# Ability to change schedules intra-hour

- ◆ When the CTS with PJM improvements take effect at Variably Scheduled Proxy Generator Buses:
  - *MPs will be able to vary im/ex schedules intra-hour; and*
  - *Im/ex schedules will not have to start at the top of the hour*

# Changing Schedules on 20 Minutes Notice

- ◆ NYISO's Real-Time Commitment (RTC) performs a multi-period, look-ahead economic commitment/dispatch that optimizes resource commitment over a 2.5 hour window
- ◆ The Commission has previously determined that NYISO's simultaneous, co-optimized evaluation of im/ex offers and offers by NYCA resources is consistent with or superior to the pro forma OATT
- ◆ Allowing MPs with scheduled im/ex to direct schedule changes that are not consistent with their accepted offers/bids after market close would impose significant new risks on NYCA loads



# Cancelled Export

- ◆ When an MP submits a Bid to export energy from New York that appears economic, RTC may commit (or not de-commit) resources, in order to serve the anticipated export on a least-cost basis
- ◆ If the MP exercises a Tariff right to cancel its scheduled export 20 minutes before the schedule is expected to commence, the additional costs NYISO incurred to support the scheduled export would be paid by NYCA loads
- ◆ Additional costs could include
  - *Higher energy costs (LBMPs)*
  - *Higher reserve costs*
  - *BPCG paid to uneconomically committed/retained generators*

# Cancelled Import

- ◆ **When an MP submits an offer to import energy to New York that appears economic, RTC may rely on the import when developing its co-optimized, multi-period least production cost solution**
- ◆ **If the MP exercises a Tariff right to cancel its scheduled import 20 minutes before the schedule is expected to commence, the resources available to replace the cancelled import will be limited to ramp on NYCA generators that is available within the relevant timeframe, or committing 10 minute resources (primarily, CTs)**
  - *Could significantly increase NYCA reserve costs, LBMPs or uplift paid to 10 minute resources*
  - *Again, NYCA loads would pick up the tab*

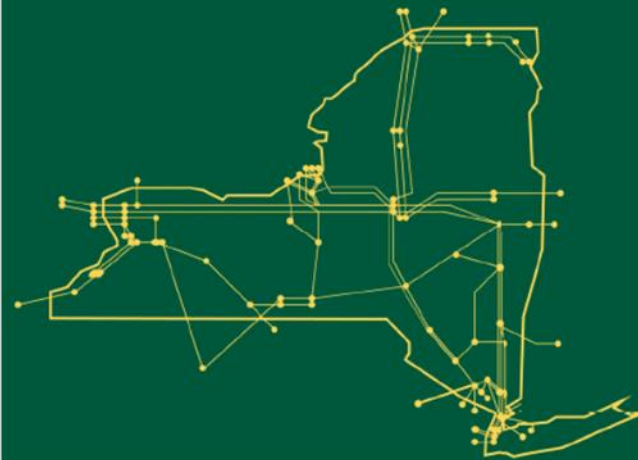
# Market Power

- ◆ **The NYISO's Financial Impact Charge exists to deter External Transaction schedule failures that occur for reasons within the scheduling MP's control**
- ◆ **Giving importers or exporters a Tariff right to cancel their scheduled transactions on 20 minutes notice to the NYISO would present a new opportunity to exercise market power in the markets the NYISO administers**

# NYISO Needs Your Support

- ◆ The NYISO's co-optimized markets are uniquely affected by the Commission's rule change
- ◆ Implementing MP-directed im/ex schedule changes on 20 minutes notice would require frequent out-of-market actions to manage reliability; undermining the efficiency of the markets that NYISO and its stakeholders have developed
- ◆ The tariff revisions that NYISO plans to propose in its CTS with PJM filing will:
  - *Enhance the scheduling flexibility afforded to importers and exporters;*
  - *Preserve the efficiency benefits of the NYISO's forward-looking multi-period economic optimization; and*
  - *Avoid exposing NYCA loads to significant new risks*

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



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