07/15/2016

Subject: Local Generator requirements in the Day-Ahead Demand Response Program

The purpose of this technical bulletin is to provide Market Participants with both the enrollment requirements for Local Generators in the Day-Ahead Demand Response Program, and the hourly interval meter data reporting requirements applicable to all Demand Side Resources enrolled in the Day-Ahead Demand Response Program.

Details:

The Day-Ahead Demand Response Program (DADRP) allows Market Participants to offer Demand Reduction from Demand Side Resources into the NYISO's Energy market. Demand Reduction can either be Load curtailment or the operation of a Local Generator[1] to reduce Load from the New York State Transmission System and/or the distribution system at the direction of the NYISO.

This technical bulletin describes the technical qualifications and measurement and verification requirements applicable to all Local Generators that will be operated by Demand Side Resources participating in the DADRP.

This technical bulletin also describes the hourly interval meter data reporting requirements applicable to all Demand Side Resources participating in the DADRP (regardless of whether the Demand Side Resource operates a Local Generator to reduce Load from the New York State Transmission System and/or distribution system at the direction of the NYISO).

Market Participants that offer Demand Side Resources with Local Generators in the DADRP must provide the NYISO with specific information, outlined below, on the Local Generator to complete enrollment in the DADRP. The information is required regardless of whether the Market Participant (and/or Demand Side Resource) intends to use the Local Generator to achieve Load reduction and shall be provided at enrollment. The information is required to be provided to the NYISO via the DADRP Resource Registration Packet located on the NYISO website at:
http://www.nyiso.com/public/markets_operations/market_data/demand_response/index.jsp

Local Generator Information

~This information must be submitted via the DADRP Resource Registration Packet

For each Demand Side Resource with a Local Generator, the Market Participant is required to provide the following Local Generator information for participation in the DADRP.

- **Generator Type**
  - Internal Combustion Engine
  - Combustion Turbines

[1] A "Local Generator" is a "resource operated by or on behalf of a Load that is either: (i) not synchronized to a local distribution system; or (ii) synchronized to a local distribution system solely in order to support a Load that is equal to or in excess of the resource's Capacity. Local Generators supply Energy only to the Load they are being operated to serve and do not supply energy to the distribution system." NYISO Market Administration and Control Area Services Tariff § 2.12.

- Steam Engines and Cogeneration units (including Combined Heat and Power units)
- Others – must specify supply source if not provided in the list above

- **Generator Fuel Type** (Primary Fuel used)
  - Coal
  - Diesel
  - Natural Gas
  - Oil
  - Gasoline
  - Kerosene
  - Propane
  - Wood
  - Landfill Gases and Waste Products
  - Other, must specify fuel type

- **Generator Specifications**
  - Manufacturer name
  - Model number
  - Generator Nameplate Capacity, kW nominal name plate
  - Generator Engine Horsepower, if applicable
  - Year generator was built, as stated on nameplate
    - If generator was retrofitted for emission control equipment, specify year of retrofit
  - Generator Location (the physical address of the Local Generator)

Local Generator Regulatory Compliance Requirements

Local Generators operated by Demand Side Resources to facilitate Demand Reduction in the DADRP must possess a valid permit from the New York State Department of Environmental Conservation (NYSDEC) authorizing the Local Generator to operate during non-emergency conditions.[2] Local Generators that are only permitted by the NYSDEC to operate during emergency conditions cannot participate in the DADRP.[3]

The Market Participant must submit NYSDEC permits to the NYISO upon request. By enrolling a Demand Side Resource in the DADRP (and continuing the Resource's enrollment in subsequent months), the Market Participant represents that the Local Generator complies with all applicable permits, including any emissions, run-time limits, or other constraints on the plant operation that be imposed by federal, state, or local laws and regulatory requirements, required to reduce Load from the New York State Transmission System and/or distribution system at the direction of the NYISO.

Metering Requirements

~This information must be submitted via DADRP Resource Registration Packet

Market Participants enrolling Demand Side Resources with Local Generators in the DADRP are responsible to provide the appropriate metering infrastructure for the Demand Side Resource it has enrolled to participate in the DADRP.

For Demand Side Resources that have a Local Generator, both a Net Load Meter and Local Generator Meter are required for participation in the DADRP.

[2] The Local Generator must have a valid NYSDEC Title V Federal Air Permit or NYSDEC Air State Facility Permit or NYSDEC Minor Facility Registration.

[3] *See* 6 NYCRR § 201-3 ("Permit Exempt and Trivial Activities") (defining the limited circumstances in which the resources may operate).

- Net Load Meter: A New York Public Service Commission (NYSPSC)-approved revenue-grade hourly interval meter that measures the net Load of the Demand Side Resource is required for participation in DADRP. This net Load meter data must be used by the NYSPSC-approved Meter Data Service Provider for the purposes of calculating the Customer Baseline Load (CBL) and for submitting data to the NYISO for settlement purposes.

- Local Generator Meter: An hourly interval meter that measures the total output of the Local Generator of the Demand Side Resource within a 2% accuracy threshold. This metering data will be required for all Demand Side Resources that are enrolled to participate in the DADRP and have a Local Generator, regardless of whether the resource plans at the time of enrollment to operate its Local Generator to provide Demand Reduction in the DADRP. The NYISO will use this Local Generator meter data solely for monitoring purposes.

- The metering accuracy shall be in accordance with requirements of the "as-left meter test criteria," described in the New York Department of Public Service 16 NYCRR Part 92 Operating Manual

- The Market Participant is required to maintain meter installation documentation and must be submitted to the NYISO upon request. Detailed information on the documentation required may be found in Section 24.4 of the Attachment R of the NYISO OATT; Market Participants should be able to provide, at a minimum:
  - Interval Metering installation date
  - Interval Metering installation individual and company
    - Name, license number, and company information
  - Meter Equipment Type
    - Make and Model of Interval Meter
    - Interval Metering accuracy
    - For CTs or PTs: Type Designation and Ratio

Measurement, Verification, and Reporting Requirements

When a Market Participant registers a Demand Side Resource to participate in the DADRP, the Market Participant is required to provide hourly interval metering data for ALL Demand Side Resources in order to validate performance.

A DADRP Resource's baseline load helps to verify compliance with the Resource's scheduled curtailment. The NYISO measures a DADRP Resource's actual Load reduction in comparison to an estimated baseline of Load for that Demand Side Resource. The NYISO uses the "High 5 of 10" CBL methodology to determine Energy payments: the five highest Load levels in comparable time periods as DADRP Resource's scheduled hours over a ten day period beginning with the day that is two days before the Load reduction is scheduled.

Market Participants are required to report data to establish two separate baselines for Demand Side Resources with Local Generators participating in the DADRP.

- **CBL for Energy Payments**
- **CBL for Local Generator – Incremental Output – used solely for monitoring purposes**

- **CBL for Energy Payments**

~This information must be submitted by the Meter Data Service Provider via Settlements Data Exchange in accordance with the time periods specified in Section 3 of the Accounting and Billing Manual.

- For requirements see DADRP Manual Section **5.0 -** *Calculating Customer Baseline Load for DADRP* and Section **6.0** *Reporting and Verifying Customer Baseline Load and Meter Data*

- **CBL for Local Generator – Incremental Output**
  - This is used to determine the baseline for the incremental output of the Local Generator.
  - The incremental output of the Local Generator is the difference between the Local Generator's metered output and the CBL of that Local Generator.
  - The data is used by the NYISO solely for monitoring purposes, not used for billing purposes.
  - The meter data used to determine the Local Generator CBL must come from the Local Generator output meter only.
  - The CBL for the Local Generator is calculated using the following procedure:
    - Sum the Local Generator output (in MWh) for each day over a 10 weekday period, beginning two days prior to the scheduled hours and excluding days where the Demand Side Resource curtailed Load in response to a NYISO direction in the EDRP/SCR Program or DADRP
    - Select the 5 days out of the 10 days selected above with the lowest values of daily Local Generator output
    - Calculate the CBL for each hour as the average of the five hourly MWh's corresponding with the scheduled hours
  - See the Section 5.2.4 of the Emergency Demand Response Program Manual for an example of how the CBL for Local Generators can be calculated.

- **Additional Meter Data Requirement**
  - Additional data may be requested by the NYISO as necessary to verify the Demand Side Resource's participation in the DADRP or to comply with Section 3.4 of the Market Administration and Control Area Services Tariff
  - The following data may be requested:
    - Load data history for Pre and Post Validation, Edit and Estimation (VEE)
    - Historical Load Data (provide a minimum of up to three months hourly interval metering data, as requested, when registering new DADRP resources)
    - New and Existing Metering Documentation
    - Time Check – time clock within +/- two minutes of true time (NIST)
    - Sum Check – the sum of the intervals when compared to the totalized load over the same period must agree within +/- 2%
    - High/Low Check – minimum and maximum expected values for the facility
    - Zero Value Check – identification and verification of hours with "0" values

Historical Hourly Interval Meter Data Documentation – This requirement applies to all Demand Side Resources participating in the DADRP regardless of whether they have Local Generators
~This information must be submitted via electronic mail

- All Demand Side Resources scheduled in DADRP are required to provide hourly interval meter data (both for the net Load meter, and, where applicable, the Local Generator meter) for all hours for the 30 days preceding the day the Demand Side Resource is scheduled in DADRP, and all hours of each day the Demand Side Resources is scheduled in the DADRP.

- The 30 days of hourly interval data is NOT a rolling requirement, it's only initiated when the resource is scheduled in DADRP.

- The following hourly interval meter data must be submitted by electronic mail to SCR_Registration@nyiso.com using the form "DADRP Hourly Interval Meter Data" available on the NYISO website at:
  http://www.nyiso.com/public/markets_operations/market_data/demand_response/index.jsp

  within fifty-five (55) days from the date of the initial invoice for the month in which the service is rendered.

The NYISO anticipates that this Technical Bulletin will be incorporated into the Day-Ahead Demand Response Program Manual during its next recertification.