

**24 Attachment R – Cost Allocation Methodology for Costs Arising Under the Incentivized Day-Ahead Economic Load Curtailment Program that are Recovered Pursuant to Schedule 1**

Under the Incentivized Day-Ahead Economic Load Curtailment Program (“Program”), costs incurred by the ISO in covering Demand Reduction Providers’ Curtailment Initiation Costs and making Demand Reduction Incentive Payments, are to be recovered under Schedule 1. These “Schedule 1 Program Costs” shall be allocated to Transmission Customers, pursuant to the methodology set forth below, on the basis of their Load Ratio Shares and in proportion to the probability, given known transmission congestion patterns, that a particular Demand Reduction will benefit them by reducing Energy costs in their Load Zones or “Composite Load Zones” (see below).

More specifically, Schedule 1 Program Costs shall be allocated to Transmission Customers each Billing Period as follows:

- a) Schedule 1 Program Costs shall initially be attributed to the Load Zone where the Generator Bus that was used to bid the Demand Reduction associated with them is located.
- b) In determining whether and how Transmission Customers located in particular Load Zones, or Composite Load Zones, have benefited from the Demand Reduction, and how much they shall be required to pay a share of the associated Schedule 1 Program Costs, the ISO shall account for the effects of congestion at the most frequently constrained NYCA interfaces. When none of these interfaces are constrained Transmission Customers in all Load Zones shall be deemed to have benefited from the Demand Reduction and shall pay a share of the associated Schedule 1 Program Costs. When one or more of the most frequently

constrained NYCA interfaces is constrained, then Transmission Customers located in a Load Zone, or Composite Load Zone, that is upstream of the constrained interface, shall be deemed to have benefited from an upstream Demand Reduction and shall be required to pay a share of the associated Schedule 1 Program Costs. Similarly, when one or more of the interfaces is congested, Transmission Customers located in a Load Zone, or Composite Load Zone, that is downstream of a constrained interface, shall be deemed to have benefited from a downstream Demand Reduction and shall be required to pay a share of the associated Schedule 1 Program Costs. By contrast, Transmission Customers that are “separated” from a Demand Reduction by a constrained interface shall be deemed not to have benefited from it and shall not be required to pay a share of the associated Schedule 1 Program Costs.

- c) The NYISO shall determine the extent of congestion at the most frequently constrained interfaces using a series of equations that calculate the static probability that: (i) no constraints existed in the transmission system serving the Load Zone or Composite Load Zone; (ii) the Composite Load Zone was upstream of a constraint and curtailment pursuant to the Program occurred upstream, and (iii) the Composite Load Zone was downstream of a constraint and curtailment pursuant to the Program occurred downstream.
- d) Costs shall be allocated to each Transmission Customer that is deemed to have benefited from the Demand Reduction on a Load Ratio Share basis, using Real-Time metered daily Load data.

The ISO and Market Participants will make an annual determination of which NYCA

interfaces were most constrained, and the frequency with which they were constrained, normalized to 100%. Composite Load Zones will be defined based on the location of the most frequently constrained interfaces. Additional information concerning this annual determination shall be set forth in the ISO Procedures.

For reference purposes, the identity of the NYCA interfaces that are currently most frequently constrained, and the equations that will be used to allocate costs to Transmission Customers during the 2001 Summer Capability Period are set forth below. The three most frequently constrained interfaces are currently the “Central-East” interface, which divides western from eastern New York State, the Sprainbrook-Dunwoodie interface, which divides New York City and Long Island from the rest of New York State, and the Consolidated Edison Company (“ConEd”) - Long Island. Interface, which divides New York City from Long Island. Given these limiting interfaces, four Composite Load Zones currently exist, *i.e.*, West of Central-East (Load Zones A, B, C, D, E,), East Upstate Excluding New York City and Long Island (Load Zones F, G, H, I), New York City (Load Zone J), and Long Island (Load Zone K). The geographic configuration of these Composite Load Zones is depicted in the illustration below.

Based on these factors, Schedule 1 Program Costs shall be allocated to Transmission Customers as follows:

For Transmission Customer m in Load Zones A, B, C, D or E:

$$\begin{aligned} a_1 * (\text{cost}_A + \dots + \text{cost}_K) * \text{load}_m / (\text{load}_A + \dots + \text{load}_K) + & \text{‘no constraints} \\ a_2 * (\text{cost}_A + \dots + \text{cost}_E) * \text{load}_m / (\text{load}_A + \dots + \text{load}_E) + & \text{‘above Central-East const} \\ a_3 * (\text{cost}_A + \dots + \text{cost}_I + \text{cost}_K) * \text{load}_m / (\text{load}_A + \dots + \text{load}_I + \text{load}_K) + & \text{‘above S-D constraint} \\ a_4 * (\text{cost}_A + \dots + \text{cost}_J) * \text{load}_m / (\text{load}_A + \dots + \text{load}_J) & \text{‘above CE-LI constraint} \end{aligned}$$

For Transmission Customer m in Load Zones F, G, H or I:

$$\begin{aligned} a_1 * (\text{cost}_A + \dots + \text{cost}_K) * \text{load}_m / (\text{load}_A + \dots + \text{load}_K) + & \text{‘no constraints} \\ a_2 * (\text{cost}_F + \dots + \text{cost}_K) * \text{load}_m / (\text{load}_F + \dots + \text{load}_K) + & \text{‘below Central-East const} \\ a_3 * (\text{cost}_A + \dots + \text{cost}_I + \text{cost}_K) * \text{load}_m / (\text{load}_A + \dots + \text{load}_I + \text{load}_K) + & \text{‘above S-D constraint} \\ a_4 * (\text{cost}_A + \dots + \text{cost}_J) * \text{load}_m / (\text{load}_A + \dots + \text{load}_J) & \text{‘above CE-LI constraint} \end{aligned}$$

For Transmission Customer m in Load Zone J:

$$\begin{aligned}
 & a_1 * (\text{cost}_A + \dots + \text{cost}_K) * \text{load}_m / (\text{load}_A + \dots + \text{load}_K) + & \text{'no constraints'} \\
 & a_2 * (\text{cost}_F + \dots + \text{cost}_K) * \text{load}_m / (\text{load}_F + \dots + \text{load}_K) + & \text{'below Central-East const'} \\
 & a_3 * \text{cost}_J * \text{load}_m / \text{load}_J + & \text{'below S-D constraint'} \\
 & a_4 * (\text{cost}_A + \dots + \text{cost}_J) * \text{load}_m / (\text{load}_A + \dots + \text{load}_J) & \text{'above CE-LI constraint'}
 \end{aligned}$$

For Transmission Customer m in Load Zone K:

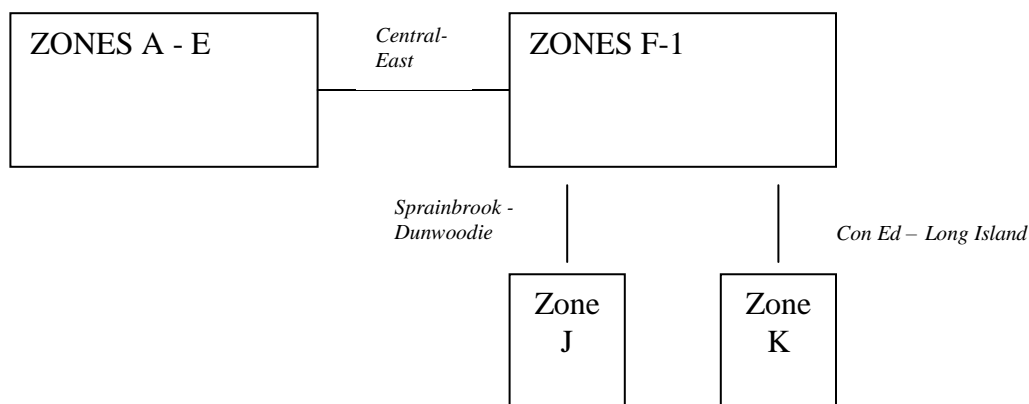
$$\begin{aligned}
 & a_1 * (\text{cost}_A + \dots + \text{cost}_K) * \text{load}_m / (\text{load}_A + \dots + \text{load}_K) + & \text{'no constraints'} \\
 & a_2 * (\text{cost}_F + \dots + \text{cost}_K) * \text{load}_m / (\text{load}_F + \dots + \text{load}_K) + & \text{'below Central-East const'} \\
 & a_3 * (\text{cost}_A + \dots + \text{cost}_I + \text{cost}_K) * \text{load}_m / (\text{load}_A + \dots + \text{load}_I + \text{load}_K) + & \text{'above S-D constraint'} \\
 & a_4 * \text{cost}_K * \text{load}_m / \text{load}_K & \text{'below CE-LI constraint'}
 \end{aligned}$$

where the variables are:

$a_1$  = fraction of time when none of the three most limiting interfaces are constrained  
 $a_2$  = fraction of time when the Central-East interface is constrained  
 $a_3$  = fraction of time when the Sprainbrook-Dunwoodie interface is constrained  
 $a_4$  = fraction of time when the Con Ed-Long Island interface is constrained  
 $\text{cost}_{A\dots K}$  = Schedule 1 Program Costs in Load Zones A...K, calculated on a daily basis  
 $\text{load}_m$  = real-time Load for Transmission Customer m, calculated on a daily basis  
 $\text{load}_{A\dots K}$  = real-time Loads for all Transmission Customers s in Load Zone A...K, calculated on a daily basis

The specific values of  $a_1$ ,  $a_2$ ,  $a_3$  and  $a_4$ , shall be updated each year and shall be set forth in the ISO Procedures.

#### Relationship Between Frequently Constrained Interfaces and Composite Load Zones



### **24.3 Verification of Actual Demand Reduction Scheduled in the Program**

Demand Reduction calculated using the Economic Customer Baseline Load methodology is subject to verification by the ISO. Demand Reduction Providers shall report the data at the time and in the format required by the ISO pursuant to Section 24.4. If a Demand Reduction Provider fails to report the required data to the ISO in accordance with Section 24.4, the Demand Reduction Provider will be subject to penalties associated with a failure to supply the scheduled Demand Reductions and may lose its eligibility to participate in the Program. All Demand Reduction data are subject to audit by the ISO. If the ISO determines that it has made an erroneous payment to a Demand Reduction Provider, it shall have the right to recover it either by reducing other payments to that Demand Reduction Provider or by any other lawful means.

### **24.4 Data Reporting Requirements for Demand Reduction Providers**

The Demand Reduction Provider must submit to the ISO the information specified in this Section 24.4 for each Demand Side Resource that it has enrolled either as an individual DADRP resource or with other Demand Side Resources as part of a single, aggregated DADRP resource. The Demand Reduction Provider must submit this information for the purpose of enrolling, registering, making settlements, and verifying the participation of each Demand Side Resource in the ISO's Energy market. To enroll and participate in the DADRP, a Demand Side Resource must have NYPSC-approved, revenue-quality, hourly-interval meters sufficient to calculate its net Load. If the Demand Side Resource has a Local Generator at its site, it must also have an hourly-interval meter that measures the total output of the Local Generator within a 2% accuracy threshold, regardless of whether at initial enrollment the Local Generator is intended to be used to provide Demand Reduction in the DADRP.

#### **24.4.1 Data Reporting Requirements for Enrollment of Demand Side Resources Participating as DADRP Resources**

The Demand Reduction Provider shall provide to the ISO the following information for each Demand Side Resource that is seeking to enroll, either individually or collectively with other Demand Side Resources, as a DADRP resource participating in the ISO's Energy market, which shall include providing information regarding each of the Demand Side Resource's interval meters required under Section 24.4:

- a. As-left meter test criteria, as prescribed in the New York Department of Public Service 16 NYCRR Part 92 Operating Procedure;
- b. Documentation to validate installation of interval meter equipment;
- c. Interval metering installation individual, company, and professional engineering license information;
- d. Make and model of installed interval metering device(s);
- e. Accuracy of installed interval metering device(s);
- f. Interval meter Current Transformer (CT) and Potential Transformer (PT) type designation, if applicable;
- g. CT Ratio, if applicable;
- h. Use of pulse data recorder as an interval metering device, if applicable;
- i. Pulse data recorder multiplier, if applicable;
- j. Any other type of meter multiplier used in the translation of data collected by the device for measuring demand, kWh, and/or MWh, if applicable;
- k. Its service address;
- l. Its Load Serving Entity;
- m. Its Transmission Owner;

- n. Its meter authority/Meter Data Service Provider;
- o. Demand Side Resource's maximum Winter and Summer reduction MW;
- p. Business classification of the Demand Side Resource (based on ISO-defined categories or national standards for business classification); and
- q. A description of any Local Generator at its site, including the Local Generator's system, its primary fuel type, the year in which it was built, the year of any retrofit, its nameplate capacity, and its horsepower, if applicable.

#### **24.4.2 Data Reporting Requirements for Verification of Energy Reductions of DADRP Resources Scheduled in the ISO's Energy Market**

The meter authority or Meter Data Service Provider of the Demand Reduction Provider shall provide the ISO with the following required data from each interval meter required under Section 24.4 for each Demand Side Resource that is registered, either individually or collectively with other Demand Side Resources, as a DADRP resource, to verify the scheduled Load reduction of a DADRP resource in the ISO's Energy market:

- a) Totalized net hourly Load reduction data of the DADRP resource (*i.e.*, the net hourly Load reduction data totalized across all Demand Side Resources that are registered, either individually or collectively with other Demand Side Resources, as a DADRP resource) for the period of the scheduled Load reduction of the DADRP resource in the format required for reporting to the ISO's Settlement Data Exchange application;
- b) Hourly-interval metered Load data for each of the individual Demand Side Resources that is registered as part of a single DADRP resource, for all hours of the day on the days of the scheduled Load reduction of the DADRP resource; and
- c) Hourly-interval metered Load data for each of the individual Demand Side

Resources that is registered as part of a single DADRP resource, for all hours of each of the thirty days preceding the day in which the DADRP resource is scheduled.

The meter authority or Meter Data Service Provider of the Demand Reduction Provider shall comply with the following when reporting Demand Reduction metering data to the ISO:

- a) Section 7.4.1 of the ISO Services Tariff;
- b) Section 13 of the ISO Services Tariff; and
- c) The ISO's Meter Data Management Protocols as provided on the ISO's website.

#### **24.4.3 Additional Data Required Upon Request**

To verify the participation of each Demand Side Resource that is enrolled, either individually or collectively with other Demand Side Resources, as a DADRP resource in the ISO's Energy market, Demand Reduction Providers and/or their meter authority/Meter Data Service Provider shall provide the ISO upon the ISO's request such additional information that may be required, including, but not limited, to the following:

- a) Any data reporting requirements of Attachments H and O to the ISO Services Tariff;
- b) Any data reporting requirements of Section 3.4 of the ISO Services Tariff;
- c) Historical Load documentation;
- d) Load data history for Pre- and Post-Validation, Edit and Estimation (VEE);
- e) Up to three months of historical Load data when enrolling a Demand Side Resource to participate in the ISO's Energy market;
- f) New and existing metering documentation, including, but not limited to:
  - 1. Calibration records;



2. Time check;
3. Sum check;
4. High/Low check; and
5. Zero value check.