

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, on a monthly basis, 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:

$$\begin{aligned}
 & a_1 * (cost_A + \dots + cost_K) * load_m / (load_A + \dots + load_K) + && \text{'no constraints'} \\
 & a_2 * (cost_A + \dots + cost_E) * load_m / (load_A + \dots + load_E) + && \text{'above Central-East const'} \\
 & a_3 * (cost_A + \dots + cost_I + cost_K) * load_m / (load_A + \dots + load_I + load_K) + && \text{'above S-D constraint'} \\
 & a_4 * (cost_A + \dots + cost_J) * load_m / (load_A + \dots + load_J) && \text{'above CE-LI constraint'}
 \end{aligned}$$

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

$$\begin{aligned}
 & a_1 * (cost_A + \dots + cost_K) * load_m / (load_A + \dots + load_K) + && \text{'no constraints'} \\
 & a_2 * (cost_F + \dots + cost_K) * load_m / (load_F + \dots + load_K) + && \text{'below Central-East const'} \\
 & a_3 * (cost_A + \dots + cost_I + cost_K) * load_m / (load_A + \dots + load_I + load_K) + && \text{'above S-D constraint'}
 \end{aligned}$$

$$a_4 * (cost_A + \dots + cost_J) * load_m / (load_A + \dots + load_J) \quad \text{'above CE-LI constraint}$$

For Transmission Customer m in Load Zone J:

$$a_1 * (cost_A + \dots + cost_K) * load_m / (load_A + \dots + load_K) + \quad \text{'no constraints}$$

$$a_2 * (cost_F + \dots + cost_K) * load_m / (load_F + \dots + load_K) + \quad \text{'below Central-East const}$$

$$a_3 * cost_J * load_m / load_J + \quad \text{'below S-D constraint}$$

$$a_4 * (cost_A + \dots + cost_J) * load_m / (load_A + \dots + load_J) \quad \text{'above CE-LI constraint}$$

For Transmission Customer m in Load Zone K:

$$a_1 * (cost_A + \dots + cost_K) * load_m / (load_A + \dots + load_K) + \quad \text{'no constraints}$$

$$a_2 * (cost_F + \dots + cost_K) * load_m / (load_F + \dots + load_K) + \quad \text{'below Central-East const}$$

$$a_3 * (cost_A + \dots + cost_I + cost_K) * load_m / (load_A + \dots + load_I + load_K) + \quad \text{'above S-D constraint}$$

$$a_4 * cost_K * load_m / load_K \quad \text{'below CE-LI constraint}$$

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

$cost_{A\dots K}$ = Schedule 1 Program Costs in Load Zones A...K, calculated on a daily basis

$load_m$ = real-time Load for Transmission Customer m, calculated on a daily basis

$load_{A\dots K}$ = 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

