Attachment N Procedure to Calculate Translation Factors for an Intermittent Power Resource or Limited Control Run of River Hydro Resource

(Version 1.1)

This Attachment N describes the general procedure for calculating translation factors for Intermittent Power Resources, which include generators that depend on wind, solar, and landfill gas for their fuel, and Limited Control Run of River Hydro Resources. The translation factors are for use in the shifting methodologies utilized in the Installed Reserve Margin study, Locational Minimum Installed Capacity Requirement study, and for studying resources in deliverability studies.

1.1. Definitions

Capability Year	per Tariff definition
Summer Capability Period	per Tariff definition

1.2. Calculations

For purposes of this Section 1.2:

"Hourly Output" means the metered output of the Intermittent Power Resource or Limited Control Run of River Hydro Resource expressed to the nearest tenth of a MW and integrated over a one-hour period

"Hourly LOLE distribution percentage" means the hourly LOLE distribution percentage expressed as a full percentage point

The calculation of the translation factor for an Intermittent Power Resource or Limited Control Run of River Hydro Resource for a particular Capability Year is based on its operating data for the five previous Capability Years. This process captures any changes in the historical average performance of an Intermittent Power Resource or Limited Control Run of River Hydro Resource that may have occurred during the prior five years of operation.

The following definitions are applicable to Intermittent Power Resources and Limited Control Run of River Hydro Resources:

$\boldsymbol{AF}_{gy}$: is the unit-specific availability factor used in the calculation of the unit-specific translation factor of supplier *g* in year *y*;

$$\boldsymbol{AF_{gy}} = \sum_{h \in CYH} \left[\left(\frac{\boldsymbol{E_{ghy}}}{\boldsymbol{NC_{ghy}}} \right) \times \boldsymbol{WF_h} \right]$$

Where:

$\boldsymbol{CYH}$ is the set of all hours during the months of June, July and August of the previous five Summer Capability Periods during which Resource g was available for commercial operation;

$\boldsymbol{E_{ghy}}$ is the average amount of energy delivered to the NYCA transmission system by Resource *g* during hour *h*, and year *y*;

$\boldsymbol{NC_{ghy}}$ is the nameplate capacity of Resource *g* in hour *h* and year *y*, and

$\boldsymbol{WF_h}$ is the hourly weighting factor corresponding to the most recent hourly LOLE distribution percentage table, available on the NYISO Installed Capacity Market web page (https://www.nyiso.com/installed-capacity-market)

$\boldsymbol{TF}_{gy}$: is the unit-specific translation factor for the ICAP-to-UCAP translation for use in the shifting methodologies utilized in the Installed Reserve Margin study, Locational Minimum Installed Capacity Requirement study, and for studying resources in deliverability studies (as defined in Attachment S of the *NYISO Open Access Transmission Tariff* (OATT))

$$\boldsymbol{TF_{gy} = 1 - AF_{gy}}$$

Except that for new Intermittent Power Resources or Limited Control Run of River Hydro Resources for which less than sixty (60) days of production data are available to calculate $\boldsymbol{AF_{gy}}$ using the equation above, $\boldsymbol{AF_{gy}}$ instead will be calculated by the ISO based on NERC class averages for similar Resources of the same class as Resource *g*. Where no similar Resource exists, the NYISO will estimate a value based on its best judgment, if a mutually acceptable value cannot be agreed on.