

#### **25.7.7 Class Year Deliverability Study Procedures.**

The ISO staff will conduct the Class Year Deliverability Study, as described in these rules, in cooperation with Market Participants. No Market Participant will have decisional control over any determinative aspect of the Class Year Deliverability Study. The ISO and its staff will have decisional control over the entire Class Year Deliverability Study. If, at any time, the ISO staff decides that it needs specific expert services from entities such as Market Participants, consultants or engineering firms for it to conduct the Class Year Deliverability Study, then the ISO will enter into appropriate contracts with such entities for such input. As it conducts each Class Year Deliverability Study, the ISO staff will provide regularly scheduled status reports and working drafts, with supporting data, to the Operating Committee to ensure that all affected Market Participants have an opportunity to contribute whatever information and input they believe might be helpful to the process. Each completed Class Year Deliverability Study will be reviewed and approved by the Operating Committee, when the Operating Committee approves the ATRA for the same Class Year. Each Class Year Deliverability Study is reviewable by the ISO Board of Directors in accordance with the provisions of the Commission-approved ISO Agreement.

25.7.7.1 Starting with Class Year 2012, if the ISO determines that additional System Deliverability Upgrade studies are required pursuant to Section 25.5.9 of this Attachment S, ISO will notify all Class Year Projects that such additional System Deliverability Upgrade studies will be conducted, such notice to be provided as soon as practicable after the ISO presents the results of the Class Year

Deliverability Study to stakeholders. Options to Class Year Developers upon such notice are set forth in Section 25.5.10 of this Attachment S.

**25.7.8 Deliverability Test Methodology for Highways and Byways.**

25.7.8.1 Definition of NYCA Deliverability. The NYCA transmission system shall be able to deliver the aggregate of NYCA capacity resources to the aggregate of the NYCA load under summer peak load conditions. This is accomplished through ensuring the deliverability of each Class Year CRIS Project, in the Capacity Region where the facility interconnects.

25.7.8.2 NYCA Deliverability Testing Methodology. The current Class Year ATBA, developed in accordance with ISO Procedures, will serve as the starting point for the deliverability baseline for testing under summer peak system conditions, subject to ISO Procedures and the following:

25.7.8.2.1 All Class Year CRIS Projects will be evaluated on an aggregate Class Year basis. Deliverability will be determined through a shift from generation to generation within the Capacity Regions in New York State. Each Capacity Region will be tested on an individual basis.

25.7.8.2.2 Each entity requesting External CRIS Rights will request a certain number of MW to be evaluated for deliverability pursuant to Section 25.7.11 of this Attachment S. The MW of an entity requesting External CRIS Rights will not be derated for the deliverability analysis.

25.7.8.2.3 Each Developer requesting CRIS will request that a certain number of MW be evaluated for deliverability, such MW not to exceed the maximum levels

set forth in Section 25.8.1 of this Attachment S. The MW requested by a Developer will represent Installed Capacity, and will be derated for the deliverability analysis. The MW requested by a Resource with an Energy Duration Limitation will represent Installed Capacity based on the Developer-selected duration (i.e., its expected maximum injection capability in MW hours for the Developer-selected duration) and will also be derated for the deliverability analysis. At the conclusion of the analysis, the ISO will reconvert only the deliverable MW and report them in terms of MW of Installed Capacity using the same derating factor utilized at the beginning of the deliverability analysis.

A derated generator capacity incorporating availability is used. This derated generator capacity is based on the unforced capacity or “UCAP” or Net UCAP, as applicable, of each resource and can be referred to as the UCAP Deration Factor (“UCDF”). The UCDF used is the average from historic ICAP to UCAP translations on a Capacity Region basis, as determined in accordance with ISO Procedures. For Class Years prior to and including Class Year 2017, t~~t~~his is the average EFORD, which will be used for all non intermittent ICAP providers. The UCDF for intermittent resources will be calculated based on their resource type in accordance with ISO Procedures. For Class Years commencing after the completion of Class Year 2017, the UCDF used is the average EFORD, which will be used for all ICAP providers that are not Intermittent Power Resources (including, but not limited to, Energy Storage Resources). The UCDF for Intermittent Power Resources will be calculated based on their resource type in accordance with ISO

Procedures. ~~Resources with an Energy Duration Limitations~~ ~~Distributed Energy Resources~~ evaluated for CRIS will be derated to reflect the Developers' selected duration. ~~Distributed Energy Resources~~ ~~Facilities~~ comprised of ~~assets~~ ~~units~~ of different technologies will be derated using a blended UCDF that combines the UCDF of the individual ~~assets~~ ~~units~~ within the ~~Distributed Energy Resource~~ ~~facility~~; provided however, that if the ~~Distributed Energy Resource~~ ~~facility~~ includes a load reduction ~~asset~~, the load reduction ~~asset~~ would not impact the UCDF of the ~~Distributed Energy Resource~~ ~~facility~~.

The UCDF factor for proposed projects will be applied to the requested CRIS level. For facilities modeled in the ATBA, the UCDF will be applied to their CRIS level.

The CRIS for each facility, regardless of outage state, will be modeled in Deliverability Studies for the Class Year unless that CRIS will expire prior to the scheduled completion of the applicable Class Year study or the CRIS is associated with a Retired facility that cannot transfer such rights prior to CRIS expiration.

25.7.8.2.4 Load uncertainties will be addressed in accordance with ISO Procedures by taking the impact of Load Forecast Uncertainty ("LFU") from the most recent base case IRM and applying it to load.

25.7.8.2.5 Deliverability base case conditioning steps will be consistent with those used for the Comprehensive Reliability Planning Process and Area Transmission Review transfer limit calculation methodology.

- 25.7.8.2.6 In deliverability testing, Emergency transfer criteria and contingency testing will be in conformance with NYSRC rules and correspond to that used in the NYISO Comprehensive Reliability Planning Process studies.
- 25.7.8.2.7 The NYISO will monitor all transmission facilities that are part of the New York State Transmission System.
- 25.7.8.2.8 When either the voltage or stability transfer limit of an interface calculated in the ATBA is more binding than the calculated thermal transfer limit, then the lower of the ATBA voltage or stability transfer limit will be included in the deliverability testing as a proxy limit.
- 25.7.8.2.9 External system imports will be adjusted as necessary to eliminate or minimize overloads, other than the following external system imports: (i) the grandfathered import contract rights listed in Attachment E to the Installed Capacity Manual, (ii) the operating protocols set forth in Schedule C of Attachment CC to the OATT, (iii) the appropriate rules for reflecting PJM service to RECo load, (iv) beginning with Class Year 2008 and in subsequent Class Years, the Existing Transmission Capacity for Native Load listed for the New York State Electric & Gas Corporation in Table 3 of Attachment L of the OATT, (v) in Class Year 2008 and 2009, 1090 MW of imports made over the Quebec (via Chateauguay) interface, and (vi) beginning with Class Year 2010 and in subsequent Class Years, any External CRIS Rights awarded pursuant to Section 25.7.11 of this Attachment S, either as a result of the conversion of grandfathered rights over the Quebec (via Chateauguay) Interface or as a result of a Class Year Deliverability Study, until, as of the Class Year Start Date, the time available to

renew the External CRIS Rights has expired, as described in Section 25.9.3.2.2 of this Attachment S.

25.7.8.2.10 Flows associated with generators physically located in the NYCA but selling capacity out of the market will be modeled as such in the deliverability base cases.

25.7.8.2.11 Resources and demand are brought into balance in the baseline. If resources are greater than demand in the Capacity Region, existing generators within the Capacity Region are prorated down. If resources are lower than demand in the Capacity Region, additional external resources are included in the model.

25.7.8.2.12 PARs within the applicable Capacity Region will be adjusted as necessary, in either direction and within their angle capability, to eliminate or minimize overloads without creating new ones. PARs controlling external ties and ties between the Capacity Regions will be modeled, within their angle capability, to hold the individual tie flows to their respective deliverability baseline schedules, which shall be set recognizing firm commitments and operating protocol set forth in Schedule C of Attachment CC to the OATT.

25.7.8.2.13 Deliverability testing will proceed as follows - The generation/load mix is split into two groups of generation and load, one upstream and one downstream for each zone or sub-zone tested within the Capacity Region. All elements that are part of the New York State Transmission System within the Capacity Region will be monitored. If there is excess generation upstream (that is, more upstream generation than is necessary to serve the upstream load plus LFU) then the

generation excess, taking into account generator derate factors described in Section 25.7.8.2.2 above, is assumed to displace downstream generation. If the dispatch of the upstream excess generation causes an overload, this overload is flagged as a potential deliverability problem and will be used to determine the amount of capacity that is assigned CRIS status and the overload mitigation.

25.7.8.2.14 For Highway interfaces, the generators or Class Year Transmission Projects in a Class Year, whether or not they are otherwise deliverable, will not be considered deliverable if their aggregate impact degrades the transfer capability of the interface more than the lesser of 25 MW or 2 percent of the transfer capability identified in the ATBA and results in an increase to the NYCA LOLE determined for the ATBA of .01 or more. The Class Year CRIS Projects causing the degradation will be responsible, on a pro rata basis, for restoring transfer capability only to the extent their aggregate degradation of transfer capability, compared to that in the ATBA, would not occur but for the Class Year CRIS Projects.