

BTM:NG CRIS and Interconnection Tariff Revisions

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Topics

- ◆ **BTM:NG Initiative Overview and General Concepts for BTM:NG Resource Participation in NYISO Markets**
- ◆ **Benefits of BTM:NG Resources**
- ◆ **Overview of BTM:NG CRIS Tariff Revisions**
- ◆ **Next Steps**
- ◆ **Appendix**

BTM:NG CRIS Review

The NYISO has reviewed BTM:NG CRIS concepts at previous working group meetings.

- ◆ **ICAPWG on March 18, 2015**

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2015-03-18/BTMNG_CRIS_ICAPWG_3-18-15.pdf

- ◆ **ICAPWG on May 28, 2015**

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2015-05-28/agenda%20%20Potential%20MW%20for%20CRIS_ICAPWG%205-28-15.pdf

- ◆ **ICAPWG on July 23, 2015**

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2015-07-23/BTMNG%20Capacity%20Market%20_7-23-15%20ICAPWG_final.pdf

- ◆ **Joint ICAPWG/MIWG/PRLWG on August 24, 2015**

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2015-08-24/BTMNG%20Capacity%20Market%20-examples-08-18-15-final.pdf

- ◆ **Joint ICAPWG/MIWG/PRLWG on September 4, 2015**

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2015-09-04/BTMNG%20Market%20Concepts-ICAPWG-MIWG%209-4-15-final.pdf

- ◆ **BIC on September 16, 2015**

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic/meeting_materials/2015-09-16/agenda%207%20pres%20BTMNG_BIC_091615.pdf

General Concepts for BTM:NG Resource Participation in NYISO Markets

BTM:NG Resources

- ◆ A BTM:NG resource is a facility that has on-site generation capability that routinely serves its host Load and has excess generation capability after serving that host Load
- ◆ BTM:NG resources will be allowed to participate in:
 - *Energy Market*
 - *Capacity Market*
 - *Ancillary Services Market*

Benefits of BTM:NG Resources

- ◆ **Access to this additional supply may:**
 - *Improve grid reliability and operational flexibility*
 - *Provide more clarity and certainty for future resource investment within New York State*
 - *Improve awareness of resources not currently participating in the NYISO wholesale markets*

General Eligibility Requirements for BTM:NG Resources

- ◆ Each BTM:NG resource must:
 - *Be designed and operated to facilitate the business function of the on-site load by providing electricity in the regular course of business;*
 - *Meet NYSDEC requirements to operate under non-emergency conditions;*
 - *Have an effective interconnection agreement;*
 - *Meet minimum net generation requirements;*
 - *Have appropriate metering configurations; and*
 - *Be responsive to dispatch instructions for each PTID as a single entity interfacing with the grid*

Participation Requirements

- ◆ To qualify as a BTM:NG resource, a minimum of 1 MW of Average Coincident Host Load will be required
 - *Host Load includes all electrically connected loads within the defined electrical boundary served by the on-site generation*
- ◆ The behind-the-meter generator must have a nameplate rating of greater than 2 MW
- ◆ The interconnection must also allow an export (injection to the grid) of at least 1 MW
 - *Multiple injection points at lower voltages may be acceptable provided they aggregate to a single injection into the NYS Transmission System*
- ◆ Each BTM:NG resource must have a revenue grade TO net meter at each interconnection point from the BTM:NG resource to the distribution or transmission system
- ◆ The BTM:NG resource must have telemetry and, if bidding flexibly, be able to follow dispatch instructions from NYISO via the connecting TO
 - *Direct communication with the NYISO is permitted as a secondary communication path*

BTM:NG Resource Facility Configurations

- ◆ Participation at a facility will be either:
 - *As a single generator serving a host load*
 - Required to provide reserves if bidding flexibly
 - Offering regulation service is optional
 - *As an aggregated set of generators serving a host load*
 - Required to provide 10 min non-spin and 30 minute reserve products if bidding flexibly
- ◆ The ISO shall review and approve each facility seeking to participate as a BTM:NG resource

CRIS Tariff Revisions Overview

Overview

- ◆ **The majority of the proposed tariff revisions are in Attachment S to the OATT**
 - *Attachment S describes the Class Year Interconnection Facilities Study*
 - *Attachment S also describes the Deliverability Interconnection Standard and how CRIS is requested, obtained and retained*
- ◆ **Related tariff revisions are proposed in Attachments X and Z to the OATT (the Large Facility and Small Generating Facility Interconnection Procedures) and Section 5.12.1 of the Services Tariff**

NYISO OATT Revisions–Attachment S

- ◆ **Ministerial and clarifying revisions throughout, many of which are intended to clarify the application of Attachment S to CRIS-Only Class Year projects**
- ◆ **25.1 Introduction**
 - *25.1.1 Purpose of the Rules – Simplification and clarification regarding the types of projects that may elect to enter a Class Year Study and that are subject to Attachment S*
 - *25.1.2 Definitions – CRIS specific definition updates; addition of definition for Class Year CRIS Project; other clarifying and ministerial edits*
- ◆ **25.3 Deliverability Interconnection Standard**
 - *25.3.1 Scope and Purpose of Standard – Revisions regarding the types of facilities that must meet the Deliverability Interconnection Standard*

NYISO OATT Revisions–Attachment S

- ◆ **25.7 Cost Allocation Methodology for CRIS (Class Year Deliverability Study)**
 - *25.7.4 Participation in Capacity Markets – Revisions to reflect deliverability requirements for ICAP suppliers; revisions reflecting the amount of CRIS a BTM:NG Resource can request in a Class Year Deliverability Study*
 - *25.7.6 CRIS Values – Revisions to explain how Winter CRIS values are determined for facilities (like some anticipated BTM:NG Resources), that may not have an ERIS value that they obtained through the NYISO interconnection process*
 - *25.7.8 Deliverability Test Methodology for Highways and Byways*
 - **25.7.8.1 Definition of NYCA Deliverability – Simplification of language regarding facilities evaluated in the Class Year Study – referring to them all as “Class Year CRIS Projects”**
 - **25.7.8.2.3 Additional language to reflect the manner in which BTM:NG Resources will be evaluated for deliverability**

NYISO OATT Revisions–Attachment S

◆ 25.8.1 Project Cost Allocation Figures

- *In introductory section, addition of language regarding the amount of CRIS a BTM:NG Resource can request*

◆ 25.9.3 CRIS Rights

- *25.9.3.1 Retaining CRIS Status – remaining language in this section relates only to the retention of CRIS and how may be lost*
- *25.9.3.3 CRIS for Facilities Pre-Dating Class Year 2007 – new subsection for existing Grandfathering rules; unchanged with the exception of the last sentence which closes Grandfathering window*
- *25.9.3.4 CRIS for Facilities Not Subject to NYISO Interconnection Procedures – new subsection regarding manner in which such facilities may obtain CRIS and requiring them to have CRIS to participate as ICAP Suppliers*
- *25.9.3.5 CRIS for BTM:NG Resources Evaluated in a Class Year Deliverability Study – New subsection regarding how final CRIS will be determined for such facilities*

NYISO OATT Revisions–Attachment X

- ◆ Ministerial and clarifying updates throughout
- ◆ **30.2 Scope and Application**
 - *30.2.1 Application of Standard Large Facility Interconnection Procedures – Clarification regarding facilities subject to Attachment X*
- ◆ **30.3 Interconnection Requests**
 - *30.3.1 General – Additional language for BTM:NG with respect to material; revision to require only Large Generating Facilities to submit separate Interconnection Requests for sites involving multiple voltage levels*
 - *30.3.2 Two Types of Interconnection Service*
 - **30.3.2.2 – Service Elections, Generally – Additional language for Large Generating Facilities requesting CRIS only**
 - **30.3.2.4 – CRIS Elections – Additional language for BTM:NG**
 - **30.3.2.6 – Increases In Established CRIS Values – Clarification of “established CRIS value”**

NYISO OATT Revisions–Attachment X

◆ 30.8.1 Class Year Study Agreement

- *Reduction in the \$100K study deposit for the CRIS only Class Year Projects to \$50,000*

◆ 30.14 Appendices

- *Appendix 1 to LFIP – Interconnection Request – Updated data requirements*
- *Appendix 4 to LFIP – Interconnection Facilities Study Agreement – Updated pro forma study agreement to incorporate CRIS-only Class Year Projects into the existing template*

NYISO OATT Revisions–Attachment Z

- ◆ **Ministerial and clarifying updates throughout, consistent with those proposed to Attachment X**
- ◆ **Revisions to forms and Interconnection Request to include BTM:NG Resources**

Next Steps

◆ **Tariff Revisions and Review**

- *ICAPWG (October 2015)*
- *ICAPWG (November 2015)*
- *BIC (December 2015)*
- *MC (December 2015)*
- *Board Approval (January 2016)*
- *Filing (February 2016)*
- *Implement (Q4 2016) – Contingent upon timely approval from Market Participants, the NYISO Board of Directors and FERC*

Appendix

BTM:NG Resource-related Definitions to be Reflected in Proposed Revisions to the Services Tariff

Net ICAP

Net ICAP is the Installed Capacity of a BTM:NG resource that is qualified to participate in the NYISO's Capacity Market

- *Consists of a generator component and a load component*

Net UCAP

Net UCAP is the Unforced Capacity of a BTM:NG resource that is available for sale in the NYISO's Capacity Market

Adjusted Host Load

AHL = Adjusted Host Load accounts for the portion of the BTM:NG generator that is reserved to supply the host Load

DMGC

DMGC: *Dependable Maximum Gross Capability* - A measure of the gross output of the generator(s) of the BTM:NG resource

- ***Similar to a DMNC***

Adjusted DMGC

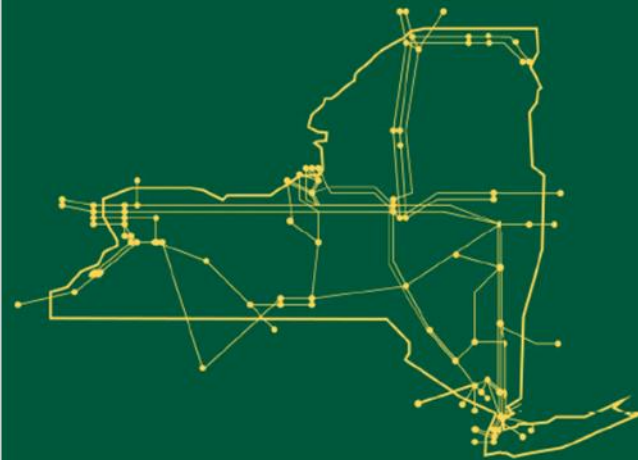
Adjusted $DMGC_m$ is the BTM:NG resource's maximum generation available to the Capacity Market in a month

- *Modeled after CRIS-adjusted DMNC*

Average Coincident Host Load

ACHL = Average of the BTM:NG resource's top 20 Load hours coincident with the top 40 NYCA Peak Load hours of the Prior Capability Year

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



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