

Carbon Pricing

Tariff Revisions

Ethan D. Avallone

SENIOR MARKET DESIGN SPECIALIST – ENERGY MARKET DESIGN

Market Issues Working Group (MIWG)

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Agenda

- Purpose
- Background
- Select Tariff Sections without Revisions
- Carbon Charges and Carbon Payments – New Rate Schedule within MST Section 15
- Carbon Pricing Timeline

Purpose

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- **This presentation will describe select tariff sections that will not require revisions, as well as the content of a proposed rate schedule within section 15 necessary to implement carbon pricing in the NYISO markets.**
 - Subsequent presentations will build upon this information, as well as introduce additional tariff revisions for stakeholder consideration.

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Background

Impacted Tariff Sections

- The following tariff sections are anticipated to be impacted by the carbon pricing proposal.
 - The NYISO is continuing to review the tariff for impacted sections.

Market Administration and Control Area Services Tariff (MST) Section	Revisions Related to:
New Section(s)	<ul style="list-style-type: none"> • Application of Carbon Charge • Social Cost of Carbon (“SCC”) • Carbon Residual Allocation
7.2, 7.4	<ul style="list-style-type: none"> • Emissions data reporting
17	<ul style="list-style-type: none"> • LBMPc
23.3	<ul style="list-style-type: none"> • Carbon Charge/emission rates in reference levels
26*	<ul style="list-style-type: none"> • Credit

*Detailed credit discussions will begin Fall 2019 upon approval of the carbon pricing market design.

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Select Tariff Sections that will not Require Revisions

Tariff Sections without Revisions

- **MST sections 4.2 and 4.5 describe DA and RT Energy settlements, respectively.**
 - No revisions are expected for these sections.
 - Suppliers will submit their bids, including an adjustment to account for the carbon charge.
 - These bids will be used by the market software to establish prices and schedules.

Tariff Sections without Revisions

- No tariff revisions are anticipated for guarantee payments such as BPCG, DAMAP, and import curtailment guarantee payments.
 - The NYISO's current guarantee payment practices will continue under carbon pricing.

Carbon Charges and Carbon Payments – New Tariff Section

Carbon Charges for Suppliers

- The NYISO will charge each Supplier located in the NYCA for the actual Carbon Emissions resulting from Actual Energy Injections.

$$\text{Carbon Charge for Supplier} = CE_{hu} * CC_{hu}$$

Where:

CE_{hu} = actual Carbon Emissions by Supplier u in hour h

CC_{hu} = (1) for Suppliers not required to procure RGGI allowances, the social cost of carbon; and (2) for Suppliers that are required to procure RGGI CO₂ emission allowances, SCC minus the RGGI cost

Carbon Charges for Import Transactions

- The ISO shall charge each Supplier scheduling Imports the LBMPc at the relevant Proxy Generator Bus.
 - A supplier scheduling Imports will not be subject to a Carbon Charge if the Import Transaction fails in the ISO's checkout process or is Curtailed at the request of the ISO.

$$\text{Carbon Charge for Import} = RTS_{iup} * LBMPc_{ip}$$

Where:

RTS_{iup} = real-time Energy scheduled for injection by Supplier u in interval i at Proxy Generator Bus p

$LBMPc_{ip}$ = real-time cost of carbon at the Point of Receipt p (*i.e.*, the Proxy Generator Bus) in interval i

Carbon Payments for Export Transactions

- The ISO shall pay each Customer scheduling Exports the LBMP_c at the relevant Proxy Generator Bus.
 - A Supplier scheduling Exports will not receive a Carbon Payment if the Export Transaction fails in the ISO's checkout process or is Curtailed at the request of the ISO

$$\text{Carbon Payment for Export} = RTS_{iup} * LBMP_{cip}$$

RTS_{iup} = real-time Energy scheduled for withdrawal by Supplier u in interval i at Proxy Generator Bus p

$LBMP_{cip}$ = real-time cost of carbon at the Point of Delivery p (*i.e.*, the Proxy Generator Bus) in interval i

Carbon Charges and Payments for Wheels through the NYCA

- **Wheels Through Transactions shall be subject to:**
 - The Carbon Charge for Imports at the Proxy Bus where the Transaction enters the NYCA.
 - The Carbon Payment for Exports at the Proxy Bus where the Transaction exits the NYCA.

Carbon Pricing Timeline

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MIWG Meeting Date	Topic/ Deliverable
Tuesday, January 15, 2019	Import/ Export Transaction Examples
Tuesday, January 22, 2019	Overview of Impacted Tariff Sections
Thursday, January 31, 2019	Tariff Revisions Discussion
	Credit Overview
Monday, February 4, 2019	Carbon Residual Allocation
Friday, February 15, 2019	LBMPc Calculation – Identifying the Marginal Unit(s)
Thursday, February 28, 2019	Tariff Revisions Discussion
Monday, March 4, 2019	Carbon Bid Adjustment for Opportunity Cost Resources
Monday, March 18, 2019	Tariff Revisions Discussion

The Mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public interest and provide benefits to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policy makers, stakeholders and investors in the power system



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