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NYISO Carbon Pricing Proposal

Background

- New York State has ambitious decarbonization goals: 40 percent reduction in carbon dioxide (CO₂) emissions by 2030 and 80 percent by 2050, relative to 1990 levels. The state's Clean Energy Standard (CES) mandates 50 percent renewable energy by 2030.
- New York State already prices CO₂ emissions from electricity generators as member of the Regional Greenhouse Gas Initiative (RGGI). However, the New York Independent System Operator (NYISO) has found that the carbon price implied by allowance prices would not, on its own, be sufficient to drive reductions in line with long term decarbonization goals.
- The NYISO created the Integrating Public Policy Task Force (IPPTF) in 2018 to consider issues related to the implementation of a higher carbon price, based on the social cost of carbon (SCC), in the state's wholesale energy market.
- On April 30, 2018, the NYISO and New York Public Service Commission (PSC) released a straw proposal that outlined potential SCC policy design considerations. On August 2, 2018, after receiving and incorporating stakeholder comments and input regarding how a SCC would be incorporated into existing wholesale energy markets, the NYISO released its Carbon Pricing Draft Recommendations.
- On December 7, 2018, the NYISO published the Carbon Pricing Proposal for the IPPTF, which outlines the proposed carbon pricing market design and details responses to stakeholder comments and considerations.
- The NYISO has stated the earliest possible implementation of a SCC is late 2021.

NYISO Carbon Pricing Proposal

The NYISO carbon pricing proposal aims to incorporate a SCC into wholesale energy markets on a price per ton of CO₂ basis in order to help the state meet its decarbonization goals. The NYISO states that they are “not proposing to change existing energy market mechanics or supplier offer procedures in order to incorporate a carbon price.”

Calculation and Application of the Carbon Price: Gross and Net Social Cost of Carbon

The New York PSC would set a “gross,” or total, SCC according to the appropriate regulatory process and “in a manner that is comparable to and compliments existing New York State clean energy programs.” A projected price for carbon in RGGI would then be subtracted from this gross SCC to result in a net SCC that would be charged to those entities with a compliance obligation under RGGI; those producers not subject to RGGI would be charged the gross SCC (more detail below on the point of application of this price). The proposal includes an illustrative pricing schedule of possible gross- and net-SCC, as shown in Table 1. While some stakeholders had asked that the

NYISO set the SCC, the NYISO does not believe this to be consistent with their mandate of coordinating wholesale markets.

Table 1. Projected Gross and Net Social Cost of Carbon [1]

	Gross SCC	RGGI Price [2]	Net SCC
2020	47.3	6.56	40.74
2021	48.3	6.98	41.32
2022	50.48	7.39	43.09
2023	52.74	7.81	44.93
2024	55.07	8.45	46.62
2025	57.48	9.09	48.39
2026	59.96	9.73	50.23
2027	62.52	10.35	52.18
2028	65.17	10.96	54.2
2029	66.54	11.58	54.96
2030	69.32	12.55	56.77

1. \$nominal/US-ton

2. The expected RGGI price is based on the August 2017 Base Case forecast for RGGI prices

The SCC would be applied at the point-of-production and would be associated with emissions from startups, no-load levels, and generation. Energy suppliers would incorporate the gross SCC into their wholesale market bids and be debited the SCC (gross or net, depending on whether the resource is subject to RGGI) during price settlement. SCC charges would be invoiced to suppliers and automatically updated hourly based on initial emissions estimates from suppliers. Suppliers would have the opportunity to true-up their emissions data within 60 days of invoicing. In-state low- or zero-emitting resources would receive the benefit of higher energy market clearing prices.

Effect on Energy Market Mechanics and Interaction with Other Programs

The NYISO is not proposing to change existing energy market mechanics or supplier offer procedures in order to incorporate a carbon price. Suppliers are expected to add their carbon charges into each applicable component of their energy offers (i.e., startup, minimum generation, and/or incremental cost curves). Supplier energy market payments would continue to be based on the full Locational-Based Marginal Price (LBMP), which would rise due to the carbon charge when carbon-emitting resources are on the margin.

However, the NYISO is proposing to calculate a Locational-Based Marginal Price-carbon (LBMPc) after each Real-Time Market run, including “look ahead” prices, and publish these values on their website. To calculate the LBMPc, the NYISO would identify the marginal unit and its approximate marginal carbon emissions for each bus and expects that it will continue to work with the Market Issues Working Group (MIWG) to detail this methodology. The NYISO states that this calculation will be necessary to provide carbon pricing transparency to the market, to determine the adjustment to the payments for import and export transactions, and to effectuate the recommended allocation of revenues.

In order to mitigate potential competitiveness and leakage concerns, the NYISO has proposed to not apply the carbon price to energy imports and exports and instead to charge them the price known as the status-quo basis. The NYISO believes that this proposal levels the playing field between imports and exports, prevents possible market distortions, and maintains current market structure, though the NYISO recognizes that this will not drive

any out of state emissions reductions. A September 2018 analysis by the Brattle Group found that there is no evidence to suggest that there are underutilized low-emitting units whose output would increase if the higher, carbon-inclusive price were offered, suggesting that the NYISO proposal would not be likely to incentivize out-of-state carbon reductions beyond reductions in coal-based imports from PJM, even if the carbon price were applied to imports and exports.

Some stakeholders have raised concerns regarding the interaction between the proposed carbon price and existing state renewable energy credit (REC) contracts. The NYSIO states that if the proposal is adopted, it expects REC and ZEC prices to fall. However, some stakeholders had commented that resources receiving RECs would receive double payment for their emissions attributes—once through REC payments and then again through higher market clearing prices. The NYISO had originally proposed to compensate for this concern by charging the carbon price for resources with preexisting REC contracts. However, in this final proposal the NYISO does *not* propose to charge renewable projects with pre-existing REC contracts the LBMPc because: (1) the aim of carbon prices is to internalize the cost of CO₂ emissions within the wholesale market, (2) REC payments are not necessarily equated to the cost of carbon abatement, and (3) charging generating resources with pre-existing REC contracts could potentially increase uncertainty in the REC market, increasing the financial uncertainty for renewable developers.

Revenue (“Carbon Residuals”) Use

The NYISO states that in distributing carbon revenues, or residuals, it seeks to align LMBP with the marginal cost of serving load and reduce major cost shifts among customers. To best achieve these objectives, the NYISO proposes to reallocate residuals among LSEs through “proportional allocation,” with equal percentage of charges credited back to each LSE.¹ Under this proposal, LSEs in zones with relatively more carbon intensive generation would pay a higher rate than other LSEs. By 2025, the net carbon payments under the proportional allocation method were estimated by the Brattle Group to be \$325 million by 2025 for the upstate LSEs and \$768 for the downstate LSEs.

Next Steps

The NYISO will continue to work with relevant stakeholders and other state agencies, including the New York State Department of Public Service and the New York State Energy Research and Development Authority on how to best integrate carbon pricing into wholesale energy markets. There is no set timeline for proposal submission to FERC or implementation. The NYISO has stated the earliest possible implementation of a SCC is late 2021.

¹ The three other methods of allocation considered by the NYISO were levelized allocation across customers who bear a greater cost of carbon pricing, a load-ratio sharing basis, and a proportional percentage levelization method.

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