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Carbon Pricing Update: Assessing NYISO's Carbon Pricing Straw Proposal

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We previously reported that ISO New England, Inc. (ISO-NE) and PJM Interconnection, L.L.C. (PJM) were considering similar proposals; thus far, carbon pricing has failed to gain traction in ISO-NE due to jurisdictional concerns from state governments, and PJM's sub-regional carbon pricing framework is only in the beginning stages of discussion among PJM member states.[3] NYISO could therefore become the first grid operator to price carbon in the wholesale electricity markets, but first must resolve numerous design and implementation challenges before filing at the Federal Energy Regulatory Commission (FERC)—potentially as early as Q1 2019.

Overview

The Proposal, issued by the joint NYISO-New York Public Service Commission (NYPSC) Integrating Public Policy Task Force (IPPTF), follows nearly two years of stakeholder meetings, examining options for supporting New York's goal of reducing its carbon emissions 40% by 2030 and 80% by 2050[4], while protecting the wholesale market design. The Proposal envisions a four-part carbon pricing framework to help achieve these goals:

- Applying a Carbon Charge to NYISO Energy Suppliers<

NYISO would assess a carbon charge—the product of a NYPSC-determined "Gross Social Cost of Carbon" (SCC) and suppliers' per-MWh carbon emissions—by debiting energy suppliers during its settlement process.[5] NYISO would incorporate this charge into its existing commitment, dispatch and price formation processes via suppliers' energy market offers, which the Proposal refers to as "carbon adders" (i.e., the additional costs in $/MWh included in suppliers' offers due to the carbon charge).[6] As such, all NYISO suppliers could benefit from higher revenues when a fossil fuel generator is the market-clearing resource, with a $40/ton carbon charge in 2025 estimated to increase wholesale prices by approximately $19/MWh on a "load-weighted average basis."[7]

- Applying a Carbon Charge to External Transactions

The Proposal would apply carbon charges on electricity imports—and credits on exports—to maintain the competitiveness of NYISO resources and mitigate "carbon leakage," or the shifting of carbon-emitting resources from NYISO to regions without a carbon price. NYISO proposes to "develop a forecast methodology for setting the carbon charges/credits" ahead of offer-submission deadlines in the day-ahead and real-time markets so that suppliers have a "reasonable forecast" for each interface and time interval.[8]

- Allocating Carbon Charge Revenues to Consumers

Carbon charge revenues would be returned to consumers in a two-step process in order to mitigate potential price impacts. First, NYISO would allocate revenues to load-serving entities (LSEs) via a "cost levelizing allocation" that accounts for zonal differences in the carbon component of the market clearing price.[9] LSEs would then return these revenues to their customers through a NYPSC-jurisdictional process. As NYISO explains, this methodology ensures that more revenues are returned to consumers "bear[ing] a greater cost of carbon pricing."[10]

- Updating NYISO's Capacity Market and Transmission Planning Processes

NYISO explains that minor changes to its capacity market and transmission planning processes would be needed to implement the carbon price. In the capacity market, for example, adjustments to the demand curve for combustion turbine (CT) reference technology would be needed, since the curve does not "immediately incorporate new changes to the market."[11] In its transmission planning process, NYISO proposes to update its economic analysis of new transmission facilities to include the carbon price.[12]

Potential Issues

IPPTF's revised work plan identifies numerous open questions and issues that NYISO and its stakeholders will need to resolve before bringing a firm proposal to FERC, ranging from interactions with existing state policies and wholesale market operations to potential consumer impacts.[13] Below we summarize two topics that are likely to face the most scrutiny:

- Federal & State Jurisdiction

Does FERC have the authority to approve a carbon price in the wholesale electricity market? Many legal scholars have concluded that the Federal Power Act (FPA) provides FERC with broad authority to approve the type of carbon charge envisioned by NYISO, so long as it does not result in rates that are unjust and unreasonable or unduly discriminatory.[14] FERC's rationale for approving a carbon charge, for example, could fall under the guise of correcting wholesale price formation and enhancing competition, or "facilitat[ing] compliance" with New York's policy goals.[15]

However, the fact that the Proposal was jointly crafted—i.e., NYSIO, a FERC-regulated entity, would administer a state-determined policy choice, the carbon price—does not remove jurisdictional concerns. Stakeholders will need to further explore, for example, whether a FERC-approved carbon charge will compliment or preempt existing state environmental and energy programs, as was discussed at the May 21st IPPTF meeting. Legal challenges on this front are inevitable; NYISO and the NYSPC therefore will need to tread carefully the blurred line between federal and state jurisdiction as the Proposal is refined.

- Setting the Carbon Price

Given the complexity of SCC calculation methodologies,[16] debate on the selection of key input values that influence SCC estimates (e.g., discount rates),[17] and political battles on climate policy at a federal level, we expect NYPSC's SCC determination to be contested.

Derived from the Obama-era Interagency Working Group on the Social Cost of Carbon (IWG), the SCC is a metric used to "monetize[] damages associated with an incremental increase in carbon emissions in a given year."[18] The NYPSC currently uses the IWG's SCC—approximately $47/ton in 2020—to calculate Zero Emissions Credits (ZECs) for nuclear generators and to perform cost-benefit analyses in its Reforming the Energy Vision proceeding.[19] Other state public

utility commissions likewise use a range of the IWG's estimates to achieve regulatory ends.[20] While federal court precedent exists for using the IWG's SCC,[21]President Trump's 2017 Executive Order disbanding the IWG and withdrawing its estimates will certainly be cited by opponents in New York.[22]

Importantly, setting the SCC's price level will influence both the effectiveness and legality of the Proposal. On the one hand, it must be high enough to incent the amount of additional carbon-free generation needed to meet New York's renewable energy targets.[23] On the other hand, the Proposal's estimated consumer cost impacts—with a higher SCC leading to greater costs via increases in wholesale prices—must pass FERC's just and reasonable review, the standard by which it will view a carbon charge filing.[24] While returning carbon charge revenues to consumers could mitigate potential costs, this allocation methodology is ultimately under the NYPSC's jurisdiction; the NYPSC could instead choose to allocate carbon charge revenues to additional emissions reduction efforts and energy efficiency programs, or some hybrid approach.

Implications and Next Steps

Despite the challenges that lie ahead, NYISO is better positioned than other grid operators to pass a carbon price through its stakeholder process given its single-state footprint. Unlike ISO-NE and PJM, whose multi-state regions differ on carbon pricing, NYISO stakeholders appear ready to move forward on carbon pricing as a tool for achieving New York's energy and environmental goals.

Should it survive legal challenges, the Proposal could help close the door in the ongoing debate on nuclear retirements and out-of-market state subsidy programs. A carbon charge mirroring that used in New York's ZEC program, for example, would nullify the program's need while continuing to provide revenue benefits from increased wholesale prices.[25] The Proposal could subsequently serve as a model for other states with at-risk nuclear generation, such as those in the PJM region, assuming certain PJM states are willing to put their political differences aside to achieve similar benefits via a subregional carbon price.[26]

Companies participating in the NYISO markets should review IPPTF's monthly meeting schedule for 2018, the next of which is set for June 4th, and look for a separate NYSPC-led process on the SCC. If all goes well, NYISO could bring a carbon charge filing to FERC as early as 2019.

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[1] NYISO, Carbon Pricing Straw Proposal: A Report Prepared for the Integrating Public Policy Task Force (2018), http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg_ipptf/meeting_materials/2018-04-23/Carbon%20Pricing%20Straw%20Proposal%2020180430.pdf.

[2] NYISO explains that carbon charge residuals "are the sum of the carbon charges debited from suppliers." Hereinafter, we will refer to such residuals as "revenues."

[3] In a November 2017 presentation, Stu Bresler, PJM's Senior Vice President of Operations and Markets, noted that entities from Delaware, Pennsylvania, Maryland, and Virginia have expressed interest in PJM's proposal. Bressler further claimed that PJM will proceed with a detailed analysis of its proposal when states express a greater interest.

[4] These targets are relative to 1990 levels; New York's 50% renewables target by 2030 is also an objective of the Proposal. *See* N.Y. State Energy Planning Bd., The Energy to Lead: 2015 New York State Energy Plan 112 (2015), https://energyplan.ny.gov/Plans/2015.aspx.

[5] Suppliers' emissions data will be self-reported for the purposes of calculating the carbon charge, as a NYISO presentation recently detailed. For NYISO suppliers covered by the Regional Greenhouse Gas Initiative's (RGGI) cap-and-trade program, NYISO will deduct RGGI's auction price from the carbon charge. Proposal at 5.

[6] Proposal at 4-5.

[7] *See* The Brattle Grp., Pricing Carbon into NYISO's Wholesale Energy Market to Support New York's Decarbonization Goals 43 (2017), https://www.nyiso.com/public/webdocs/markets_operations/documents/Studies_and_Reports/Studies/Market_Studies/Pricing_Carbon_into_NYISOs_Wholesale_Energy_Market.pdf.

[8] Proposal at 7-8.

[9] *Id.* at 9.

[10] *Id.* at 10.

[11] *Id.* at 11.

[12] *Id.*

[13] *See* Appendix 1 to the work plan.

[14] *See, e.g.*, Ari Peskoe, *Easing Jurisdictional Tensions by Integrating Public Policy in Wholesale Electricity Markets*, 83 Energy L. J. 1 (2017), http://www.eba-net.org/assets/1/6/15-1-48-Peskoe_-_[FINAL].pdf; Joel B. Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, 49 U.C. Davis L. Rev. 1783 (2016), https://lawreview.law.ucdavis.edu/issues/49/5/Articles/49-5_Eisen.pdf; Justin Gundlach & Romany Webb, Sabin Center for Climate Change L., Columbia L. School, Carbon Pricing in New York ISO Markets: Federal and State Issues (2017), http://columbiaclimatelaw.com/files/2017/02/Gundlach-Webb-2017-02-Carbon-Pricing-in-NYISO-Markets.pdf; Steven Weissman & Romany Webb, Addressing Climate Change Without Legislation Vol. 2: How the Federal Energy Regulatory Commission Can Use Its Existing Legal Authority to Reduce Greenhouse Gas Emissions and Increase Clean Energy Use (2014), https://www.law.berkeley.edu/files/CLEE/FERC_Report_FINAL.pdf.

[15] *See* Peskoe at 15, 19-21 (citing *Midcontinent Indep. Sys. Operator, Inc.*, 156 FERC ¶ 61,235, at P 2 (2016); *ISO New England, Inc.*, 147 FERC ¶ 61,173 (2014)); *see also* Gundlach & Webb at 51-57;

[16] *See generally* Noah Kaufmann, Columbia Univ., The Social Cost of Carbon in Taxes and Subsidies, Part I: The Use of Current Estimates (2018), http://energypolicy.columbia.edu/sites/default/files/pictures/CGEPSocialCostofCarbonEstimatesinTaxesSubsidies0318_0.pdf.

[17] The "discount rate" is a variable used to assign proper costs to climate change now and in the future. When calculating the SCC, the use of a higher discount rate will result in lower SCC estimates, and vice versa.

[18] Interagency Working Grp. on Social Cost of Carbon, U.S. Gov., Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 128661 1 (2010), https://www.epa.gov/sites/production/files/2016-12/documents/scc_tsd_2010.pdf.

[19] *See* Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Adopting a Clean Energy Standard , Nos. 15-E-0302, et al., at 131 (N.Y.P.S.C. Aug. 1, 2016) ("CES Order"); Proceeding on Motion of the Comm'n in Regard to Reforming the Energy Vision, Order Establishing the Benefit Cost Analysis Framework, No. 14-M-0101, at App'x C (Jan. 21, 2016). Stakeholders, including the NYPSC, recently suggested that NYISO use a ZEC-like SCC in its impact assessment of the Proposal going forward.

[20] State public utility commissions in Minnesota, Colorado, and Washington have instructed their incumbent utilities to use the IWG's SCC estimates, or close variations, when conducting new generation planning. *See, e.g.*, *In re the Application of Pub. Serv. Co. of Colorado for Approval of its 2016 Elec. Resource Plan*, No. 16A-0396E, at 29-30 (Apr. 28, 2017) (using a SCC starting at $43/ton in 2022 and increasing to $69/ton in 2050); *In re the Further Investigation into Envtl. and Socioecon. Costs Under Minn. Stats. Sec. 216B.2422, Subdiv. 3*, No. E-999/CI-14-643, 2018 WL 572293, at **4-5 (Minn. P.U.C. Jan. 3, 2018) (using a range of $9.05-$42.46/ton in 2020); Wa. Utils. and Transport. Comm'n, Press Release, Energy regulators want closer look at utilities' coal plant costs (May 7, 2018), https://www.utc.wa.gov/aboutUs/Lists/News/DispForm.aspx?ID=527 (noting that the Washington Utilities and Transportation Commission "instructed utilities to use a comprehensive, peer-reviewed estimate of the monetary cost of climate change damages, suggesting estimates produced by the [IWG]").

[21] *See Zero Zone, Inc. v. DOE*, 832 F.3d 654, 674 (7th Cir. 2016) (holding that "[the Department of Energy's] determination of the SCC, supported by the IWG, in its cost-benefit analysis of energy efficiency regulations "was based on substantial evidence and can hardly be characterized as arbitrary or capricious").

[22] In withdrawing the IWG's SCC estimates, the Executive Order instructed federal agencies to use an Office of Management & Budget guidance document from 2003 "when monetizing the value of changes in greenhouse gas emissions resulting from regulations." That document instructs federal agencies to "provide estimates of net benefits using both 3 percent and 7 percent" discount rates when calculating the SCC, with a higher discount rate leading to a lower SCC. This methodology runs contrary to the IWG's, which favored lower discount rates of 2.5% and 3% (resulting in higher SCC estimates). Federal courts have not spoken on the use of the IWG's SCC since the President's Executive Order was issued.

[23] *See supra* note 3. Although The Brattle Group predicts that a $40/ton carbon charge could provide a range of emissions abatement opportunities that avoid 8% of 2025 electricity emissions relative to 2015 levels, *see supra* note 5, at 50, reducing electricity sector emissions is just one piece of a larger puzzle needed to meet New York's goals; complementary policies will also be needed in the transportation and buildings sectors, which account for 34% and 32% of New York's total emissions. Projected emissions abatements will be further modeled through the IPPTF stakeholder process against projected cost impacts in deciding whether to move forward with the Proposal.

[24] *See* 16 U.S.C. § 824d(a) (2012) ("[a]ll rates and charges made, demanded, or received by any public utility for or in connection with the transmission or sale of electric energy subject to the jurisdiction of the Commission, and all rules and regulations affecting or pertaining to such rates or charges shall be just and reasonable, and any such rate or charge that is not just and reasonable is hereby declared to be unlawful").

[25] CES Order at 144 (noting the NYPSC's determination "that the design and duration of the [ZEC program] shall be such that it can be modified or eliminated by the Commission if there is a national, NYISO, or other program instituted that pays for or internalizes the value of the zero-emissions attributes in a manner that adequately replicates the economics of the program").

[26] PJM envisioned this type of subregional carbon pricing framework in a August 2017 white paper. *See* PJM Interconnection, L.L.C., Advancing Zero Emissions Objectives through PJM's Energy Markets: A Review of Carbon-Pricing Frameworks (2017), https://pjm.com/~/media/library/reports-notices/special-reports/20170502-advancing-zero-emission-objectives-through-pjms-energy-markets.ashx.

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