

Carbon Pricing in the PJM Energy Market

On August 23, 2017, PJM published a white paper entitled, *Advancing Zero Emissions Objectives through PJM's Energy Markets: A Review of Carbon-Pricing Frameworks*, examining opportunities to implement carbon pricing on a regional or sub-regional basis (the “White Paper”).¹ Since then, New Jersey and Virginia initiated processes to join Maryland and Delaware in the Regional Greenhouse Gas Initiative (“RGGI”). Similar initiatives are also taking place in other regions including those that surround PJM. For example, the New York ISO (“NYISO”) began exploring carbon pricing mechanisms for its energy market² and Canada implemented a national carbon pricing construct that will affect generators in the Mid-Continent ISO (“MISO”) and the Independent Electricity System Operator of Ontario.³ In late 2018, the Federal Energy Regulatory Commission (“FERC”) approved revisions to California ISO’s (“CAISO”) interregional Energy Imbalance Market (“EIM”) optimization to comply with California’s greenhouse gas regulations and mitigate negative externalities associated with policy asymmetries across participating states.⁴ CAISO is now considering ways to incorporate different states’ carbon reduction policies into the EIM construct.⁵

While these examples illustrate some local jurisdictions’ interest in using carbon pricing mechanisms to mitigate greenhouse gas emissions, it’s important to recognize that these policies are not uniformly embraced by every PJM state today. The term “local jurisdiction” used here means a relevant local authority that promulgates and/or directs the means to implement energy policies, including, for example, the PJM states, Washington D.C., and/or municipal governments. The absence of a regional or national mandate means officials in local jurisdictions – not PJM or its stakeholders – determine whether or not to adopt carbon pricing policies as well as the means of implementation. Constituents often ask these policymakers to consider whether the anticipated environmental benefits are balanced against potential increases to consumer costs. It’s equally important to recognize that broader regional forces can impact this cost benefit calculus in areas that pursue carbon pricing policies and those that do not.

For example, a damaging spill-over effect called “leakage” can occur along any seam between areas with and without carbon pricing. As compliance costs within the carbon pricing region drive demand for imported power from cheaper sources located elsewhere, emissions will shift – or “leak” – across borders, potentially producing higher regional greenhouse emissions even after accounting for the lower emissions in the carbon pricing region. This is especially important in the context of PJM because many local jurisdictions in and outside of the region do not currently participate in a carbon pricing framework. Without addressing leakage, rising emissions can eliminate the environmental benefits that carbon pricing policies are intended to produce. Similarly, leakage can also harm consumers in areas that have not adopted carbon pricing as more expensive resources push market clearing prices higher. Higher prices, which will be passed through to consumers as higher costs, is precisely the type of market outcome that local officials may have attempted to avoid.

The White Paper suggests that the wholesale market design could be leveraged to advance emissions reductions goals while protecting local jurisdictions’ autonomy and minimizing harmful spill-over effects

¹ Available at: <https://www.pjm.com/~media/library/reports-notice/special-reports/20170502-advancing-zero-emission-objectives-through-pjms-energy-markets.ashx>.

² Available at: <https://www.nyiso.com/documents/20142/2244202/2017-Brattle-NY-Carbon-Study.pdf/156a738d-e471-ccad-e146-07ac593ec0c3>.

³ The Greenhouse Gas Pollution Pricing Act was enacted in October 2018. Available at <https://www.canlii.org/en/ca/laws/stat/sc-2018-c-12-s-186/139160/sc-2018-c-12-s-186.html>.

⁴ *California Independent System Operator Corporation*, FERC Docket No. ER18-2341. Available at <http://www.aiso.com/Documents/Oct29-2018-OrderAcceptingTariffRevisions-EIMBidAdder-ER18-2341.pdf>.

⁵ California ISO 2019 Draft Three-Year Policy Initiatives Roadmap and Annual Plan available at <http://www.aiso.com/Documents/2019DraftPolicyInitiativesRoadmap.pdf>.



Opportunity Statement

like emissions and price leakage. Therefore, it is prudent to investigate potential opportunities to support the diverse policy perspectives that exist within the PJM region while also maintaining the competitive nature of the market.