

FERC Technical Conference Signals Market Reforms to Accommodate State Policies

Mechanisms for Valuing Resource Attributes and Internalizing Carbon Costs among Key Potential Advancements

May 9, 2017

MAY 1/2 FERC TECHNICAL CONFERENCE

On May 1 and 2, 2017 the Federal Energy Regulatory Commission (FERC) held a technical conference to determine whether state policies and objectives can be achieved through wholesale market mechanisms in the Eastern RTOs/ISOs in response to concerns over state power incentives interfering with wholesale market operations. FERC heard testimony from state regulators, organized market operators, and other stakeholders to examine the interaction between state policies and the wholesale markets, as well as the potential for sustainable market designs to both preserve regional market benefits and respect state policies.

1

Background on Conference

Contentions arising from nuclear subsidies and out-of-market power incentives led FERC to schedule the technical conference (AD17-11-000). In its advance notice, FERC observed that there is an open question of how competitive wholesale markets, particularly in restructured states or regions, can select resources that interest state lawmakers while maintaining the benefits of regional markets and economic resource selection. FERC also noted the growing state interest in policies that prioritize certain resources or resource attributes, while the current market design allows resource selection based on principles of economic and operational efficiency and does not specify resource type.

August 2016: New York approves a nuclear subsidy plan

Part of New York's Clean Energy Standard (NY PSC dockets 15-E-0302 and 16-E-0270)

12-year contracts for zero-emission credits in six two-year tranches beginning 1 April 2017

Price of the credits would be calculated according to the following formula:

$$CO_2 - RGGI - Cap = ZEC$$

Social cost of carbon (initially \$17.48) Baseline of \$5.61/MWh Price above \$39/MWh \$/MWh

For the first two years, the Commission estimates the subsidy to cost \$1 billion and yield \$5 billion in carbon reduction benefits, equaling net benefits of \$4 billion.

Coalition for Competitive Electricity et al v. Audrey Zibelman et al

December 2016: Illinois decides to subsidize its nuclear

Future Energy Jobs Bill (SB 2814)

ZES will be active for 10 years after the legislation takes effect on June 1, 2017

Financial support for zero-emission attributes of nuclear plants based on the social cost of carbon with adjustments for market conditions

Maintains \$1.2 billion in economic activity as argued by Exelon; destroys \$14.7 billion in economic activity as argued by opponents

Rate increases capped at \$0.25/month for residential and 1.3% for business consumers relative to 2015 rates

Electric Power Supply Association et al v. Star et al

March 2017: Connecticut discusses subsidizing nuclear

New Jersey starts studying nuclear subsidies

Nuclear Industry Asks for Subsidies in Pennsylvania

April 2017: Ohio proposes a nuclear subsidy

SB 128

Eight two-year program periods

Maximum number of credits set at 1/3 of total consumption

Retail rate increases capped at 5% relative to June 2015 rates

\$17 per credit (per MWh) + inflation

Employment levels at ZEN resources capped at pre-1990 levels

2



ACCESS NOW

A common argument in both lawsuits in New York and Illinois is that zero-emission credits distort wholesale markets by applying to specific generators, discriminate against other carbon-free technologies, and infringe on FERC jurisdiction over interstate electricity markets. PJM's Independent Market Monitor, which has supported the lawsuits, observes that these subsidies pertain to specific units and are not precisely characterized as state policy.

Stakeholder Comments and Proposals

FERC

- Design a new market solution
- Go through litigation
- Change the entire regulatory construct

3 ways to address the issue

ISO-NE: A two-stage, two-settlement process for its capacity market

ISO-NE would add a secondary market called a substitution auction, providing financial incentives for existing, high-cost capacity resources to transfer their capacity obligations to subsidized new resources, then permanently exit the capacity market. In the first stage, the ISO would clear the auction as it does currently, including Minimum Offer Price Rule and new capacity offers. In the second stage (substitution auction), existing capacity resources with retirement bids that retained obligations in the primary auction would transfer their obligations to subsidized new resources that failed to clear the first stage due to MOPR. By aligning the quantity of resources that enter with the quantity that exits, system reliability would be preserved and consumers would not face adverse impacts. Further, the primary auction's clearing price would determine the payment rate, thereby preserving competitively-based capacity prices for new and existing resources that acquire capacity obligations. The proposed approach is expected to be technically straightforward to implement, possibly by February 2019, as it builds on the existing FCM design.

PJM: Capacity Market Repricing and Carbon Pricing

PJM's capacity market repricing proposal would involve a two-stage capacity auction whereby resources would submit one set of offers into a capacity auction, as they do currently, but the cleared capacity commitments and clearing prices would be determined in separate stages. PJM would determine the subsidy types that trigger repricing, and address the capacity market offers with these subsidies accordingly.

PJM observes that states interested in pursuing carbon policy objectives could opt for carbon pricing so that the external cost of carbon is internalized by emitting suppliers and is ultimately reflected in the locational marginal price.

NYISO: Internalize the Social Cost of Carbon into Wholesale Pricing

While NYISO supports the retention of nuclear resources for environmental and reliability reasons, the ISO also points to potential concerns from out-of-market actions such as pricing or procurement that is specific to a unit type or fuel type creates the potential for distortions in the competitive electric market. According to NYISO, subsidies may cause uneconomic units to remain operational, thereby artificially lowering clearing prices and adversely affecting economic signals necessary to maintain resource adequacy requirements. Price suppression may force otherwise economic units to retire early or enter into Reliability Must Run agreements (which is used as a last resort).

NYISO observes that New York's efforts represent the beginning of an initiative that must be addressed on a regional basis and intends to continue dialog with neighboring regions to explore solutions compatible with PJM and ISO-NE markets.

PUCs

The MD PSC urged FERC to consider placing a value on the avoided externalized costs of non-emitting generation pointing that the benefits of emissions-free generation that are currently not captured in the resource-neutral capacity markets. FERC could consider a wider federal program to value such attributes nationwide. MD PSC believes that the energy industry challenges can best be addressed through a cooperative approach between federal and state governments as long as it does not override state authority to pursue policy-based options in choosing generation resources.

Upholding state primacy to implement energy policy within their borders, the IL CC said that energy and capacity market designs should account for state energy policies. The commission also suggested a hybrid approach would present a reasonable path forward, enabling some state policies to be achieved through regional markets and others through state actions.

Industry

IPPNY: The Independent Power Producers of New York, a trade association, suggested that FERC should authorize NYISO to internalize the value of carbon in wholesale electricity prices. IPPNY noted that CES assigns a much higher value to carbon (\$43/ton) than the value produced by RGGI (\$3/ton), thereby discriminating non-nuclear resources.

Exelon suggested that wholesale markets auctions could continue to select resources based on least-cost principles against a backdrop of state policies that address environmental externalities. The company suggested that FERC could allow ISOs/RTOs to file tariffs that integrate state goals into the wholesale market, which could be accomplished in several ways ranging from a centralized procurement of state-identified environmental attributes to the inclusion of a pollution adder in wholesale energy bids. Exelon also cited widespread support for carbon pricing among economists.

Dynegy noted that proliferation of state subsidies are negatively impacting the competitive markets and unsubsidized market participants.

NRG said that state nuclear subsidies represent massive interventions in the wholesale market and also suggested a two-tier pricing to accommodate state actions.

BOTTOM LINE

Market Woes vs Market Solutions

The economics of nuclear generation have been adversely impacted by competition from lower-cost gas-fired plants, increased safety requirements, and falling electricity demand. The industry has been vocal about the need for an effective market design that recognizes the benefits of nuclear power and the need to reward the favorable attributes of nuclear plants, such as the ability to provide reliable and dispatchable capacity, carbon-free electricity, base load operation, long-term and stable costs, and system reliability.

Redesign and Include Carbon

Looking forward, given the support voiced by multiple groups of stakeholders, amending the wholesale market rules appears to be the most viable option as opposed to litigation, which would take long and change the rules haphazardly, or changing the entire regulatory construct, which would mark another tectonic shift in the market and would take even longer. Similarly, mechanisms to include the cost of carbon into the wholesale price could well find their way into the new reforms thanks to the broad support from several stakeholder classes. Such actions would eliminate the price discrepancies between state proposals and the actual RGGI price and allow the markets to level the field for all resource types while including certain state preferences.

EnerKnol connects you with comprehensive, real-time energy policy data from federal, regional, and state sources.

Visit enerknol.com to learn more!