

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

State Policies and Wholesale Markets)
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York Independent System Operator, Inc., and)
PJM Interconnection, L.L.C.)
)

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Statement of

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I appreciate the opportunity to provide comments on the issues raised by the Commission in this docket and to participate in the technical conference.

The goal of competition is to provide customers wholesale power at the lowest possible price, but no lower. The PJM markets work. The PJM markets bring customers the benefits of competition.

But, as the Commission recognizes, wholesale power markets in the U.S., including PJM, face new challenges that threaten the viability of competitive markets. The identified challenges take the form of subsidies implemented by individual states. Subsidies can take multiple forms, from unit specific subsidies to technology specific subsidies to the provision of out of market infrastructure including transmission interconnections or gas pipelines. But all these subsidies have similar negative impacts on markets.

Largely as a result of the success of markets, proposals for subsidies emerged more fully in 2016 and continue to expand in 2017. As a result of competition from low cost gas and the associated entry of new, efficient gas-fired combined cycle units, energy market prices have fallen to historic lows and capacity market prices have been moderate. Competition has made some formerly baseload units uneconomic. Many uneconomic units have retired, but others have sought subsidies as an alternative.

The Ohio subsidy proceedings and the Illinois ZEC subsidy proceeding originated in this reality that competitive markets result in the exit of uneconomic and uncompetitive generating units. Regardless of the specific rationales offered by unit owners, the proposed solution for these generating units has been out of market subsidies in order to retain such units by artificially making them appear economic. These subsidies are not accurately characterized as state policy. These subsidies were not requested to accomplish broader social goals. Broader social goals can be met with market-based mechanisms available to all market participants on a competitive basis and without discrimination.

Particularly in times of stress on markets and when some flaws in markets are revealed, nonmarket solutions may appear attractive. Top down, integrated resource planning approaches

are tempting because it is easy to think that experts know exactly the right mix and location of generation resources and the appropriate definition of resource diversity and therefore which technologies should be favored through exceptions to market rules. The provision of subsidies to favored technologies, whether solar, wind, coal, batteries, demand side or nuclear, is tempting for those who would benefit, but subsidies are a form of integrated resource planning that is not consistent with markets. Proposals for fuel diversity are generally proposals to subsidize an existing, uneconomic technology. Subsidies are tempting because they maintain existing resources and provide increased revenues to asset owners in uncertain markets.

It is essential that any approach to the PJM markets incorporate a consistent view of how the preferred market design is expected to work to provide competitive results in a sustainable market design over the long run. A sustainable market design means a market design that results in appropriate incentives to retire units and to invest in new and existing units over time such that reliability is ensured as a result of the functioning of the market. There are at least two broad paradigms that could result in such an outcome.

The market paradigm includes a full set of markets, most importantly the energy market and capacity market, which together ensure that there are adequate revenues to incent new generation when it is needed, to incent retention of existing generation when it is needed, and to incent retirement of units when appropriate. This approach will result in long term reliability at the lowest possible cost. The subsidy approach is inconsistent with the PJM market design and inconsistent with the market paradigm and constitutes a significant threat to both.

The quasi-market paradigm includes an energy market based on LMP but addresses the need for investment incentives via the long-term contract model or the cost of service model. In the quasi-market paradigm, competition to build capacity is limited and does not include the entire PJM footprint. In the quasi-market paradigm, customers absorb the risks associated with investment in and ownership of generation assets through guaranteed payments under either guaranteed long term contracts or the cost of service approach. In the quasi-market paradigm there is no market clearing pricing to incent investment in existing units or new units. In the

quasi-market paradigm there is no incentive for entities without cost of service treatment to enter and thus competition is effectively eliminated. In the quasi-market paradigm, there are only attenuated incentives for efficient energy production because market participants do not bear the risks associated with losses or profits in the energy market. The quasi-market paradigm is based on a nonmarket, planning approach to resource selection and is therefore fully consistent with subsidies.

The market paradigm and the quasi-market paradigm are mutually exclusive. Once the decision is made that market outcomes must be fundamentally modified, it will be virtually impossible to return to markets.

The proposed subsidy solutions ignore the opportunity cost of subsidizing uneconomic units, which is the displacement of resources and technologies that would otherwise be economic. A decision to subsidize uneconomic units that are a significant source of energy and capacity has direct and significant impacts on other sources of energy; the opportunity costs of subsidies are substantial. Such subsidies suppress energy and capacity market prices and therefore suppress incentives for investments in new, higher efficiency thermal plants but also suppress investment incentives for the next generation of energy supply technologies and energy efficiency technologies. These impacts are long lasting, but difficult to quantify precisely.

Subsidies are contagious. Competition in the markets could be replaced by competition to receive subsidies. PJM markets currently have no protection against this emergent threat. Accurate signals for entry and exit are necessary for well functioning and competitive markets. Competitive investors rely on accurate signals to make decisions. Similar threats to competitive markets are being discussed by unit owners in other states and the potentially precedential nature of these actions enhances the urgency of creating an effective rule to maintain competitive markets by modifying market rules to address these subsidies.

Despite ongoing attempts to modify market rules to accommodate subsidies, the conclusion remains that the subsidy model is fundamentally inconsistent with the PJM market design. Efforts to modify market rules in ways that permit subsidies to affect market outcomes

are inconsistent with competitive markets. Such efforts generally validate the subsidies and do not protect the market. The PJM capacity market, for example, works because it requires all load to buy capacity and requires all capacity resources to offer capacity. The PJM capacity market cannot work as a residual market with special exceptions for subsidized units.

The current proposals for subsidies demonstrate that the markets need protection against subsidized, noncompetitive offers from existing as well as new resources. The current minimum offer price rule (MOPR) only addresses subsidies for new entry by specific technologies. The MOPR should be expanded to address subsidies for all existing and proposed units, and this should be done expeditiously. An inclusive MOPR is the best means to defend the PJM markets from the threat posed by subsidies intended to forestall retirement of financially distressed assets. The role of subsidies to renewables should also be clearly defined and incorporated in this rule.

An inclusive MOPR should incorporate the key elements of the current MOPR. This design would limit the impact of subsidies on markets while ensuring that existing forms of market participation by vertically integrated, cost of service companies could continue. An inclusive MOPR is a much better way to maintain PJM markets than the PJM proposal to incorporate subsidies, which could result in the capacity market becoming a residual market.

While an inclusive MOPR would protect markets in the short run, the underlying market design issues that have resulted in the pressure on markets should also be examined. Much of the reason that market outcomes are subject to legitimate criticism is that the markets have not always been permitted to reveal the underlying supply and demand fundamentals in prices. Before market outcomes are rejected in favor of nonmarket choices, markets should be permitted to work. It is more critical than ever to get capacity market prices correct. A number of capacity market design elements resulted in a substantial suppression of capacity market prices for multiple years. Energy market price formation should also be addressed but not changed in any basic way. The LMP markets based on short run marginal costs are fundamentally sound. But, as one example, current uplift rules subsidize inflexible units by paying them based on inflexible

parameters that result from lack of investment and that could be made more flexible. The result both inflates uplift costs and suppresses energy prices.

These market design choices have and have had impacts. Capacity prices that were suppressed substantially below the level consistent with supply and demand fundamentals affected some participants' long term decisions, including the decisions by some market participants to seek subsidies. PJM has addressed most of the issues of the capacity market design in its Capacity Performance design, including price formation, product definition and performance incentives, although capacity market prices are still suppressed.

To the extent that there are shared broader goals related to PJM markets, they should also be addressed. If society determines that carbon is a pollutant with a negative value, a market approach to carbon is preferred. Implementation of a carbon price is a market approach which would let market participants respond in efficient and innovative ways to the price signal rather than relying on planners to identify specific technologies or resources to be subsidized. Fuel diversity has also been mentioned as an issue. Current fuel diversity is higher than ever in PJM. If there is an issue, the real issue is fuel security and not fuel diversity. Significant reliance on specific fuels, including nuclear, coal and gas means that markets are at risk from a significant disruption in any one fuel. All fuels have associated fuel security risks. If fuel security for gas is a concern, a number of issues should be considered including defining the reliability of the pipelines, the compatibility of the gas pipeline regulated business model with the merchant generator market business model, the degree to which electric generators have truly firm, no notice gas service and the need for a gas RTO to plan for and help ensure reliability. Comparable analysis should be pursued for all fuel sources.

There is no reason to try to pick preferred technologies. There is no reason to provide nonmarket compensation to preferred technologies. There is no reason to undercut markets in order to accommodate preferred technologies.

When specific issues are identified through analysis, good market design can provide market incentives for solutions.

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