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Can FERC's Markets and State Clean Energy Policies Work Together?

By David Boyd[1]

Synopsis

On December 19, 2019, the Federal Energy Regulatory Commission (FERC) issued its Order directing PJM to expand its current Minimum Offer Price Rule (MOPR) to address state-subsidized electric generation resources. The MOPR Order has triggered a swirl of reactions and responses. Unfortunately, it has not parted the waters, but rather muddied them. After placing the MOPR in its big-picture context, this paper looks at one solution, the Fixed Resource Requirement alternative (FRR), that avoids the MOPR by ending states' relationship with the FERC-regulated capacity market. However, the paper concludes that a superior alternative would be one (or more) of a range of ideas that works within the competitive, regional markets while avoiding the MOPR's negative consequences on clean energy development. These ideas include carbon pricing, a Forward Clean Energy Market (FCEM), and a substitution auction that allows subsidized clean energy resources to assume the position of unsubsidized winners of the capacity auction. These solutions, unlike both FRR and MOPR, work to align the existing regional market with states' clean energy policies.

The MOPR: One Domino in a Long String of Dominos

States in the PJM footprint have not seen the kind of clean energy development that has soared in places where renewable resources are more abundant and land is more plentiful. This has been a particular issue for PJM states, most of which are today aligned with a strong government mandate to decarbonize. And as government has introduced subsidies—often targeted to particular technologies, sometimes at the behest of particular companies—this has impacted a wholesale marketplace that was first theorized and then invested in by numerous parties as a "free market." It isn't, it turns out.

The emergence of state policies that channeled investment to particular resources led PJM to take steps to prevent those policies from suppressing the price signal the market depended on for investment.[2] Thus the MOPR was born. In time, states adopted more policies, directing subsidies to other resources that were not covered by the MOPR. That led to complaints at

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[2]Interestingly, the MOPR got its start not as a reaction to clean energy subsidies, but in reaction to state-sponsored natural gas plants in Maryland and New Jersey. See: PJM: MOPR Overview and Exemption Process

FERC, which led to FERC's decisions in the PJM Minimum Offer Price Rule (MOPR) concluding that all "state subsidies," using a broad definition,[3] distort capacity-market market prices and therefore should be subject to the MOPR.

The "strong MOPR" that FERC adopted in December 2019 directed PJM to require that specified state-subsidized power resources bid at or above predetermined, technology-specific price floors in the capacity auctions. This extended the application of MOPR from new natural gas-fired resources to include most existing and virtually any new resource of all fuel types if they are state subsidized. This encompassed not just wind and solar, but nuclear as well as coal, energy efficiency and demand response, even the generic programs that were technology-neutral but by virtue of being state-run were considered "subsidies."

And so began a new round of complaints. Dozens of parties filed rehearing petitions, most of which were rejected in an April 2020 order that only strengthened the MOPR further. The matter is now in litigation, with more than a dozen entities having filed petitions for judicial review.

In short, the MOPR is one domino in a string of dominos that, as Commissioner Glick has noted in his dissents, may end in the termination of the competitive regional marketplace altogether.[4] The question is whether this debate is asking for an unnecessary choice between a fair and free competition in wholesale markets and enacting state clean energy policies.

In many ways, this debate has become overly complicated and needlessly hostile. State and federal regulators need to mutually respect one another, realize they are all public servants, and assume they are motivated by purer intentions that are sometimes ascribed to them. As a father to many children, I am prone to using simple sayings to convey parental lessons.

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[3]FERC's December 2019 Order defines a State Subsidy as: "a direct or indirect payment, concession, rebate, subsidy, non-bypassable consumer charge, or other financial benefit that is (1)a result of any action, mandated process, or sponsored process of a state government, a political subdivision or agency of a state, or an electric cooperative formed pursuant to state law, and that (2)is derived from or connected to the procurement of (a) electricity or electric generation capacity sold at wholesale in interstate commerce, or (b) an attribute of the generation process for electricity or electric generation capacity sold at wholesale in interstate commerce, or (3)will support the construction, development, or operation of a new or existing capacity resource, or (4)could have the effect of allowing a resource to clear in any PJM capacity auction."
December 2019 Order, 169 FERC ¶ 61,239 at P 9.

[4]https://ferc.gov/news-events/news/commissioner-richard-glick-dissent-regarding-ferc-directing-pjm-expand-minimum, https://ferc.gov/news-events/news/commissioner-richard-glick-rehearing-dissent-regarding-pjm-mopr

Sayings such as:

- "two wrongs don't make a right"
- "using the wrong tool, won't solve problem, it will probably make it worse"
- "don't throw the baby out with the bathwater"
- "don't fight the problem, solve it"
- "first, do no harm"
- And, finally I like to paraphrase Albert Einstein by saying "you can't solve a problem by using the same kind of thinking you used when you created it."

These simple sayings come to mind as I think of what led up to the MOPR and the responses to it. At this moment when society is struggling to come together on so many issues, it is worth revisiting how the tensions in our state-federal system of regulation have arisen—and how they might be resolved.

A Bedtime Story:

Historic Origins of State-Federal Jurisdictional Tension

A significant strength of the United States is the dual governance of states and the federal government. Each jurisdiction has its own responsibilities and authorities—but they naturally overlap given the physical realities of the modern grid.

The Federal Power Act defines the limits of state and Federal jurisdiction in the sale of electricity, among other topics. There are two important elements to the FPA jurisdictional division. First, the "bright line" distinction of electricity sale for resale in interstate commerce.[5] Second, practices directly affecting wholesale rates.[6] A "sale for resale" is relatively clearly defined—although recent debates about net metering show there is room to dispute whether certain arrangements are sales and, if so, are in interstate commerce.[7] The second element draws state concern since many policies and practices could be deemed to affect wholesale markets.[8] While the goal of the act was to avoid gaps in regulation, one can see in the growing

[5]FPC v. Southern California Edison Co. (Colton), 376 U.S. 205, 206-07 (1964).
[6]FERC. v. Electric Power Supply Association, 136 S.Ct. 760, 774 (2016).
[7]For a summary of comments see: Politico: Wide range of groups urge FERC to reject anti-net metering petition
[8]The California ISO review preceding formation of the Energy Imbalance Market included a discussion concluding that FERC will continue to have jurisdiction only over rules or practices that "directly affect" wholesale rates in the CAISO region. See CAISO: Evaluation of Jurisdictional and Constitutional Issues Arising from CAISO Expansion to include PacifiCorp Assets and references therein.

array of practices that might affect wholesale that the federal regulator may expand its jurisdiction as a practical matter to an ever greater field.

To date, however, FERC has not fully "federalized" the electric sector, and so it stands apart from other, traditionally state-regulated industries like telecom and trucking that have through law and regulation largely been federalized. Instead, state and federal electricity regulators have a history of working to cooperate and in effect share jurisdiction. Recently, that dialogue has taken many forms including formal conversations between commissioners, and between groups of commissioners in leadership positions (e.g. NARUC and RTO/ISO Regional State Committees) with FERC commissioners and staff on policies, technologies, and best practices. FERC and NARUC members have frequently engaged in dialogues on topics like demand response, smart grid/smart response, RTO issues, and competitive procurement.[9,10] Indeed, Section 209 of the Federal Power Act provides for joint boards between state and federal regulators, a practice used in 2005 to explore security constrained economic dispatch. The opportunity to share perspectives did not always lead to consensus but allowed for open exchange of ideas that preserved a respectful culture enabling regulation in the best interest of impacted parties.

But, the pace of change in the delivery of electricity has created more nuance between jurisdictions. As originally defined, the distinction between local intrastate, and broader interstate commerce left little to dispute in allocation of jurisdiction—if only because local electricity networks seldom crossed state lines. When that changed, everything started to change. Federal regulators began to require local networks to open their grid to third parties, then they offered a pathway for these local networks to be operationalized regionally through RTOs (which I discuss later), and later they required regional networks to think about how to build this new electric highway even bigger.

It wasn't just the grid and federal regulators view of it that changed. The devices on the grid have been changing too. Technologies that offer demand response are products that seem fundamentally oriented to retail consumers—but which have found wide adoption in

[9]See for example NARUC Federal Government Collaboratives, FERC Power Sales and Markets and links within, FERC, NARUC Revamp 'Sunday Morning Collaborative, FERC/NARUC Collaborative ON Smart Response: Smart Grid Standards: Implications for State Regulatory Commissions - Background and FAQs

[10] The Sunday morning sessions of "FERC Church" at NARUC meetings were lively, well attended, and collegial.

participating in the FERC-regulated wholesale markets.[11] So the divide has been blurred, but interestingly it is what states chose to do in de-monopolizing generation and retail supply that set the stage for the MOPR issue we are now encountering by debatable and arguably inconsistent treatment, and the states' pursuit of clean energy paths is challenging jurisdictional separation even more.

Each Child is Unique: Some States Choose Competition

States have used their sovereignty to take different directions on electricity policy. Some states have remained traditionally regulated, with cost-of-service-regulated monopolies and very little, if any, competition in the ultimate supply of their customers.[12] Meanwhile, other states, mostly in the northeast as well as Texas, have chosen differently. Customers and legislators, upset at huge cost overruns of monopoly utilities, broke them up. In Texas, the remnant transmission-and-distribution (T&D) monopolies were "quarantined". Elsewhere, T&D monopolies were allowed to remain in a holding company structure with power-generation affiliates. But in either case, customers were now free to choose from a provider of their choice—and upstream, power would not be sold through T&D companies, but through central auctions and bilateral contracts.

Many of the states that chose this path are in the PJM footprint. And in making that choice, they vastly expanded the number of "sales for resale" that occur without being bundled together with T&D rates. That didn't mean FERC's jurisdiction *changed*, it meant that *state policy choices* led to more sales being classified under FERC's regulation. That was, in fact, one of the points: In order to really have competition, the states needed a broad regional market with many participants—not just local monopolies. The investment decisions made by asset owners rely on efficient market signals and thus on the design and performance of the wholesale markets. PJM, as well as ISO-New England and the New York ISO, all had an important new role: Not just running the grid and sending short-run price signals to clear up utilities balance of supply/demand, but sending price signals that would actually lead to new investments by "merchant" companies that had no recourse to ratepayers.

[11]See for example: FERC Demand Response and links within, and Jeffery S. Dennis, Suedeen G. Kelly, Robert R. Nordhaus, and Douglas W. Smith, Federal/State Jurisdictional Split: Implications for Emerging Electricity Technologies,

[12]While there are competitive elements to resource procurement in some vertically integrated systems, the state regulator's invisible hand remains the proxy for competition in traditionally regulated states.

The Middle Child: RTOs the Bridge Between States and Federal Government

The advent of competition has sharpened the focus of jurisdictional separation onto differences between vertically integrated utilities and those operating in a competitive marketplace, with the ISO/RTO in the middle. Organized markets have delivered great value to end use customers but have been forced to adapt many times in their short history.[13] North American ISOs and RTOs serve two-thirds of US electricity consumers and are federally regulated utilities.[14]

The multistate RTOs and ISOs each have a unique distribution of member retail utilities. PJM finds itself in the difficult position of enacting market rules applicable to both competitive and vertically integrated retail environments, or to provide the ability to bypass market components that are inconsistent with a particular state or utility service territory's retail organization. Clearly, this is not easy and has led to disagreements among stakeholders, as well as jurisdictional disagreements between state and federal regulators.

Tensions between the states and FERC are not new (consider issues like standard market design, discussion of placing interstate transmission siting in the hands of the federal government, and more recently Order 841), but seldom, if ever, has the tension been as palpable as it is today. States and state utility commissioners in the PJM footprint have expressed concern with the scope of the order and the changes FERC adopted relative to earlier versions of the order that would better accommodate state generation preferences. While the states continue to consider the impacts of the order and their paths forward there is little doubt that this decision will be in court for years. States are concerned about overreach by federal regulators and the potential for further intrusion into the retail side of the electricity market.

No One Said it Would be Easy: How to Fix the MOPR Problem?

The response to the FERC's MOPR Orders was swift and diverse. One response is obvious and apparently inevitable: litigation against FERC's decision to expand the MOPR. The outcome is uncertain. As well, FERC's leadership could change—in which case the MOPR (and much else) probably would be significantly modified. In either case, PJM probably will resume capacity auctions, with the MOPR intact, next year. It is not clear that MOPR will significantly raise costs by eliminating subsidized resources' ability to clear the auction in the first several auctions.

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[13] Many RTOs and ISOs calculate the value delivered to end use customers. See: PJM Value Proposition, MISO Value Proposition, SPP The Value of Trust, ISO EIM Benefits, CAISO Senate Bill 350 Study - Volume XII: Review of Existing Regional Market Impact Studies

[14] IRC: ISO/RTO Council

States that have subsidized resources that have much higher "bid floors" under the MOPR, such as offshore wind, will end up paying significantly more for those subsidies and unsubsidized capacity if MOPR remains in effect, and states keep on track subsidizing specific resources.

Beyond litigation, some states have explored the Fixed Resource Requirement alternative (FRR), particularly Illinois, New Jersey, and Maryland, where the utility holding company and nuclear generator Exelon has a footprint. There are other ideas on the table as well: adopting a carbon price, a revision to the capacity market that allows clean energy to substitute for retiring fossil resources, and a regional competitive market for clean energy procurements.

Take the Ball and Go Home: Option #1--Fixed Resource Requirement

PJM's Fixed Resource Requirement (FRR) seems to have the inside track as the only option under broad discussion for those who fear injury from the MOPR. The FRR allows companies to use self-supplied resources to demonstrate capacity adequacy and thus bypass the capacity auction. Presumably, this allows the state to incorporate their policy goals into each jurisdictional utility's resource mix assuring the state's goals will be met. The FRR tool was designed to help vertically integrated systems in the PJM footprint demonstrate compliance with resource adequacy standards. FRR is infrequently used and seems awkward for use by the competitive states in PJM where its adoption feels like a step back towards cost of service regulation.

The PJM Independent Market Monitor has modeled the impacts of FRR on Illinois, Maryland and New Jersey and concluded that customers in those states will pay hundreds of millions of dollars more if the FRR is adopted.[15] Others dispute the methodology and thus the market monitor's conclusion.[16] In reality, it has been difficult to measure the effectiveness of FRR, because FRR is not a market design—it's merely a path to remove a utility from the competitive, regional capacity market. However, if past is prologue, claims that FRR would save money should be viewed skeptically. Capacity prices in FRR areas almost always have been higher than the PJM market price.

[15] Monitoring Analytics: Potential Impacts of the Creation of New Jersey FRRs - IMM for PJM (May 13, 2020), Monitoring Analytics: The Potential Impacts of the Creation of Maryland FRRs - IMM for PJM (April 16, 2020), Monitoring Analytics: Potential Impacts of the Creation of New Jersey FRRs - IMM for PJM (December 18, 2019)
[16] Miles Farmer and Rob Gramlich, Whether to FRREXIT: Information States Need on the Costs and Benefits of Departing the PJM Capacity Construct

FRR's implementation could range from full "Integrated Resource Planning" with cost-of-service regulation to a localized capacity auction construct. Most recently, its most prominent proponent, Exelon, jointly filed a proposal with New Jersey utility PSEG that seems to mix-and-match pieces of both regulatory models. The New Jersey Board of Public Utilities received overwhelmingly negative feedback on FRR, and most stakeholders seem poised to view the PSEG/Exelon proposal as a Frankenstein's monster.

Left unresolved in any FRR proposal to date is the issue of market power. This is a profound issue even in the expansive, competitive regional markets because of the amount of generation supply at certain places and certain times controlled by only a handful of players. By narrowing the pool of resources and re-introducing a utility as the FRR Entity that also owns generation, market power issues are significantly heightened. This means FRR is less likely to have prices that are the result of a heads-up competition—and more likely to result in consumers paying whatever certain actors dictate they should be paid. Importantly, unlike RTOs, there is no "market monitor" for FRR procurements.

FRR in one way is similar to MISO's or SPP's predominantly vertically integrated environments, where FERC and the RTO set minimum resource adequacy standards, but each utility pursues its own plan to meet or exceed it. However, there is one big difference that makes those areas very unlike those now proposing FRR, which is that the MISO and SPP utilities are still subject to cost-of-service regulation. That allows PUCs a full and complete look at the books and limits a utility's incentive to exercise market power. None of the FRR proposals following the MOPR have this characteristic.

Thus, regardless of design, FRR remains an odd tool in a restructured business model, which appears to leave consumers deeper in the hybrid environment that former FERC Commissioner and NARUC President Tony Clark warned about and moves away from the philosophy that underpins a competitive market.

In for a Penny, In for a Pound: Option #2--Pricing Carbon

While simple in concept, the design and implementation of any carbon pricing mechanism is an elusive tool. The politics around legislating a carbon tax are extremely complicated, and administrative agencies often do not have taxing authority to implement a carbon tax.

The concept of incorporating carbon pricing into wholesale markets has been raised often and will be the subject of a September 30, 2020 FERC technical conference. However, finding agreement on carbon policy among a dozen or more states in an RTO has proven elusive. Additionally, as noted by Commissioner Glick, the addition of a carbon tax to wholesale markets is not likely to satisfy the policy ambitions of states and defuse the MOPR debate.
Single state organizations have enjoyed greater success in the carbon arena. The New York ISO is moving forward with market design plans to implement carbon pricing as has California, demonstrating the advantage of implementing single state policies in single state markets. The CAISO Energy Imbalance Market is one example of applying a single state's carbon policy in a multistate footprint thanks to their border adjustment mechanism, something that may be applicable to other RTOs. The federal government's Social Cost of Carbon has been used for planning purposes but not yet implemented as a direct value for taxing purposes. It is not clear that a federal cost of carbon for mitigation purposes can be uniformly incorporated in energy pricing anytime soon.

Cap and Trade famously occupied industry discussions with debate of the Waxman-Markey bill some years ago. Two cap and trade programs are operating in North America, the Regional Greenhouse Gas Initiative (RGGI) and the Western Climate Initiative (WCI). Proponents are pleased with the results of the programs, yet revenues generated are falling and the relatively low clearing price of allowances may not yield adequate revenue to offset the lost market income imposed by the MOPR.

Musical Chairs: Option #3--Substitution Auction

Another potential tool for MOPR response is to develop a program something like the New England ISO's two-phase capacity auction where the second portion, Competitive Auctions with Subsidized Policy Resources (CASPR), is designed to accommodate subsidized resources. The mechanism allows retiring resources that currently earn capacity supply obligations (CSOs) in the ISO's Forward Capacity Auction the opportunity to transfer those obligations to new, subsidized resources that do not have CSOs. The existing resource would then retire and pay the subsidized resource for meeting the obligation. The most recent Forward Capacity Auction in February failed to clear any of the resources seeking CSOs through the CASPR[17] begging the question of the effectiveness of the tool as it stands today.

[17] S&P Global: ISO New England capacity auction closes at lowest price ever

Never Give Up: Option #4--A Forward Clean Energy Market

Forward Clean Energy Market (FCEM) would be an additional competitively bid opportunity to match suppliers of clean energy attributes to willing bidders driven by state Renewable and/or Clean Energy Standards. Mechanically, the FCEM would look much like a forward capacity market where bids and asks for a period three years forward. Those bidders with a compliance obligation under an RPS or CES would participate on the demand side of the auction, while clean-energy resources would constitute the supply side.

In short, FCEM would establish a transparent and competitively determined price for the premium that clean energy needs to get developed. Its results would then feed into the forward capacity market, with clean resources allowed to bid without MOPR. In order to work around the MOPR, FCEM would have to be embedded in an RTO tariff. Although approved by FERC, since it would be state laws that created the demand for the product traded in the market, FCEM would be effectively subject to state decision making. The opportunity for shared jurisdiction may provide an opportunity for constructive dialogue and a healthy return to cooperative federalism.

As described by Brattle, the FCEM proposal is built around three core ideas. First, competition, which is critical for identifying the least-cost solution to a problem of this complexity by ensuring competition across all carbon-free energy sources. Second is smart product design, where the marketable product is a clean energy attribute credit (CEAC) which is a certificate for one MWh of clean energy attributes, not the energy itself. A marketable product reflecting the clean energy attribute complements the existing wholesale electricity markets for energy, capacity, and ancillary services. This allows the combined markets to find the least cost combination of technologies to meet traditional system needs while decarbonizing the grid. Together, the wholesale markets and the FCEM can ensure that both system reliability and decarbonization targets are achieved at the lowest possible cost. The third core idea is multiyear forward procurement using an auction design with a three-year forward period and the opportunity for multi-year price lock-in for new resources. At its heart, the FCEM advocates a market driven solution that fits the ideals of a competitive environment with both state and federal regulators in cooperative engagement to solve the problems highlighted by the MOPR.

The FCEM relies on CEAC which can be described as an evolved form of the Renewable Energy Certificates (RECs) commonly used today to track and trade clean energy attributes. Entities like M-RETS, NEPOOL Generation Information System, and PJM Generation Attribute Tracking

System (among others) exist today with experience in tracking and trading renewable attributes. While it makes sense to administer the FCEM through PJM's FERC tariff, an attribute tracking system or other entity with market experience and access to the required data could operate an FCEM elsewhere if it can be integrated with the other RTO functions.

Conclusion

The underlying problem confronting FERC, PJM and most of the PJM states is how to use their respective regulatory tools to promote public policies, especially clean energy policies, without undermining competitive electricity markets. Certain proposed solutions, like FRR, don't really solve the problem, so much as move around it. But three other solutions show promise as states and the federal government continue their tense but ultimately productive dialogue.