FERC CHASING THE UNCATCHABLE

Trying to Fix Mandatory Capacity Markets Like Trying to Win Whack-a-Mole

By Delia Patterson and Harvey Reiter

To ensure service reliability, companies responsible for supplying electricity to consumers - what the industry refers to as load-serving entities - are obligated by regulators to hold adequate levels of reserve generating capacity. Many of these companies look to auctions run by regional transmission organizations, RTOs, and independent system operators, ISOs, to meet some or all of their capacity obligations. While something of a misnomer, these capacity "markets" have been a fixture of RTO and ISO operations around the country for over a decade.

In three of these regions - PJM, ISO New England and New York ISO - participation by load-serving entities is mandatory. But it is impossible to say that these mandatory markets have made things better for suppliers, consumers or state regulators.

On the contrary, existing generators continue to complain that they are undercompensated. State regulators worry that needed capacity is not being built, or at least is not being built where it is needed. And higher payments to generators have not improved reliability.

FERC's efforts to get capacity markets "right" in these regions have instead led to endless - and futile - tinkering. As the problems with mandatory capacity markets have popped up, FERC has been chasing them like the arcade player in a game of whack-a-mole.

FERC hits the problem, seemingly head on. Only to see the same problem, or a brand new one, pop up somewhere else. And the process starts all over again.

Worse yet, as FERC has attempted to address each problem it has adopted a hodge-podge of fixes and exemptions - particularly related to its rules setting floors on seller bids - that become increasingly hard to reconcile with one another.

It's time for FERC to start over, or at least to regroup and reassess.

Background

Understanding FERC's view of the role of capacity markets begins with its conception of the principal benefit it expected to come from separating the generation of electricity from its delivery.

"One of the benefits often ascribed to restructuring," wrote Northeastern University Professor John Kwoka, "was that this risk would be allocated in a more efficient manner, specifically, on those most responsible for the risk and best able to bear it." "That principle," he explained, "was expected to result in shifting more of the risk to investors, rewarding good decisions and penalizing bad ones, rather than the regulatory approach of giving all (or at least all minimally prudent) investments the same return." 1

Central to the success of wholesale competition in the RTO and ISO markets was the locational marginal pricing, LMP, of energy. This, FERC said, would:

"... send price signals that are likely to encourage efficient location of new generating resources, dispatch of new and existing generating resources, and expansion of the transmission system."

But the use of LMP was not unqualified. To protect consumers from market power abuses in the restructured wholesale market environments FERC had encouraged, the newly-formed ISOs proposed caps on the prices of energy sold in their markets. These price caps, however, themselves soon prompted complaints from generators.

With caps on energy prices mandated by ISO market rules, generators successfully argued, they would be undercompensated if they could not be paid for their capacity to make up the revenue shortfall created by these energy price caps.2 The first capacity markets proposed by the eastern ISOs were a direct response to the so-called "missing money" problem posed by these very caps.

The cure proposed in PJM, ISO New England and the New York ISO, however - making their capacity auction markets mandatory - has unfortunately proved far worse than the disease. Initially touted as auxiliary markets intended to supplement long term bilateral markets, the mandatory auction markets quickly morphed into the default mechanisms for capacity procurement.
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And the problems appeared almost immediately.

Stamping Out "Artificial Price Suppression" Fires, with Floors on Seller Bids

It was only a few years after the first mandatory capacity markets were put in place that merchant generators complained of a new problem with these capacity markets. They warned that net buyers - sellers who were predominantly buyers - might lowball bids in capacity markets, selling below cost to depress the auction prices "artificially." This would be a profitable strategy, the generators argued, because the net buyers could make up for sales losses with the savings they'd enjoy on their purchases of capacity at suppressed prices.

Responding to this perceived problem, in the mid-2000s, FERC approved the implementation of minimum offer price rules - or MOPRs - that would set floors on seller bids. But the bid floors had limited scope. They had applicability only to new generation. And then, only to net sellers, because only net sellers had the motive to suppress prices artificially.

In PJM and ISO New England, these bid floors also did not apply at all to sellers who self-supplied their capacity needs (mostly municipal utilities, rural electric cooperative and other vertically-integrated utilities). Nor did the bid floors apply to sellers acting under state procurement programs.

The latter exemption, FERC found, was: "... reasonable because it enables states to meet their responsibilities to ensure local reliability."

Which Sellers Bids Should be Subject to Bid Floors? Should Any? Does FERC Have a Consistent Rationale?

The ink had hardly dried on the new bid floor rules when, a few years later, the merchant generators complained that capacity prices were still being depressed. This time the alleged culprits were self-supplying utilities and state commissions that had established capacity procurement programs to acquire capacity under long-term contracts. Removing MOPR exemptions for self-suppliers' capacity, or capacity procured under state programs, they said, would fix this problem.

Far from fixing this problem (or even establishing that one exists), FERC has spent the last several years defending a hodge-podge of orders that: remove MOPR exemptions in some RTOs but not others, restore previous exemptions and add new ones. All this with no unifying rationale or consistent application across RTOs.

Take for example, FERC's varying positions on the role of intent in approving bid floors. Ignoring its earlier statements that MOPRs were needed to tackle the problem of net buyers who "might have an incentive to depress market clearing prices," in 2011, FERC removed the state and self-supply exemptions in New England. Bids below cost, FERC now reasoned, would have the same price-suppressing effect irrespective of the intent of the seller.

But within the same month FERC issued its ISO New England order, it reverted to an intent-based rationale for removing the state and self-supply exemptions from the PJM MOPR. A MOPR that covered all sellers of new capacity, not only net buyers, it said, "addresses the concern that some market buyers may have an incentive to depress market clearing prices by offering supply at less than a competitive level."

Yet, staying with its intent-based theme, FERC retained exemptions for bids of nuclear units, hydroelectric facilities, integrated gasification combined cycle facilities, and upgrades or additions to existing capacity resources. Bids from these types of facilities, it reasoned, were conclusively presumed to be economic in PJM because they have no incentive to depress auction prices.

Sellers of renewable generation in PJM, it said, were likewise exempt because they also presumably have no reason to bid below cost. "Wind and solar resources," FERC has reasoned, "are a poor choice if a developer's primary purpose is to suppress capacity market prices."

A couple of years later, FERC was again asserting that intent should be irrelevant to defining the scope of bid floor rules. But it nonetheless began carving out (or restoring) a broad range of exemptions, based entirely on the rationale that the exempted entities lack the intent or ability to suppress prices artificially.

While simultaneously rejecting the relevance of intent, it incongruously intoned "that buyer-side market power mitigation rules are intended to address market power exhibited by certain entities seeking to lower capacity market prices." Thus, for example, in 2013, FERC approved a PJM MOPR exemption for both competitive entry and self-supply resources.

The competitive entry exemption FERC approved applies to resources operating without any support from a utility customer charge. The self-supply resource exemption applies to resources that have long-standing business models (public power, cooperative and
vertically integrated utilities) that are not net buyers, or that would not likely have the incentive or ability to profit from making below cost sales.

But even in granting exemptions based on the seller's assumed lack of intent to suppress prices, FERC's policies have been scattershot. The self-supply exemptions it has approved in PJM, for example, did not become available in New York until 2015.

And even though FERC's rationale for New York's self-supply exemption was generic, a self-supply exemption is still not available in New England. Similarly, independent generators have been exempt from bid floor rules in PJM and New England for several years, but were not exempted in New York until 2015.

There is no obvious pattern to the bid floor exemptions FERC has granted for wind and solar resources either. Reasoning that "wind and solar resources are a poor choice if a developer's primary purpose is to suppress capacity market prices," for example, FERC has extended an unqualified exemption to renewable resources in PJM since 2011. But it rejected any exemption for renewable resources in New England.

Then, late last year, finding that many intermittent renewable resources "provide their developers with limited or no incentive and ability to exercise market power to artificially suppress ICAP market prices," it found the lack of a bid floor exemption from the NYISO tariff unreasonable. Yet, having found that a bid floor for these renewable resources was unnecessary, FERC nonetheless placed a megawatt cap on the renewable resources eligible for the exemption "to further limit any risk of artificial price suppression."

While FERC continues to say that intent is irrelevant, the identity of the party asking for the exemption also apparently makes a difference in whether FERC will grant it. FERC has said, for example, that it would consider RTO-sponsored MOPR categorical exemptions for state-mandated resources, but has rejected state pleas for such exemptions that were not supported by the RTOs in their regions.

One area where, until now, FERC has remained constant is its position that bid floors should not apply to existing generators that have already participated in prior auctions. Because their costs are sunk, FERC has reasoned, they may participate in the auctions as price takers.

But, as if to prove this article's thesis that no mandatory capacity market issue ever truly remains settled, a group of generators filed a complaint with FERC in mid-March seeking to "expand" PJM's bid floor rules. Those rules, they argue, should cover not only new generation, but "existing resources whose continued operation is being subsidized by State-approved out-of-market payments."

The complaint presents FERC with an uncomfortable choice. More than twenty years ago, FERC declared that states "may seek to encourage renewable or other types of resources through their tax structure, or by giving direct subsidies." Does it now eschew settled policy and take up yet another theory of "artificial price suppression," in its so far elusive effort to perfect mandatory capacity markets?

The Search to Define Below Cost Bids

At their core, bid floor rules are intended to prevent sellers from submitting below cost bids. So the rules generally allow sellers to bid below the bid floor, if they can show their actual costs are lower.

But the search to define cost is an elusive one. FERC's approach, to say the least, has been unpredictable.

Who, for example, could logically have predicted that FERC would reject proof of the seller's actual capital costs, and impute to it higher hypothetical capital costs? Yet that is precisely what FERC did in a case a few years ago.

The case was *Astoria Generating Co. LP et al. v. New York Independent System Operator, Inc.* It involved a 2011 complaint alleging that, in assessing whether a seller had submitted a below cost bid under the ISO's MOPR rules, the New York ISO had improperly used the sellers "actual cost of capital."

In an earlier case, *PJM Power Providers Group v. PJM Interconnection, LLC*, FERC had rejected a generator complaint that PJM be required to substitute a proxy cost of capital for the seller's actual capital cost. PJM, it said, must be permitted "to recognize the lower financing costs of sellers that are especially creditworthy or that have negotiated contracts that have enabled them to secure favorable credit terms." The RTO, it added, "must exercise discretion" in determining whether a seller's cost advantages are legitimate.

Exercising its discretion, NYISO had determined that the seller had negotiated a contract with the New York Power Authority, NYPA, that did in fact enable it to secure favorable credit terms. Indeed, FERC agreed that this was precisely the case.
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But citing the earlier *PJM* case - a case which FERC described as supporting the need for RTOs to exercise their discretion - FERC surprisingly substituted its judgment for NYISO's. It found that the seller's lower financing costs were "inconsistent with a competitive offer."

The process by which the seller had won its contract with NYPA, FERC acknowledged, had been an open and transparent one. But open and transparent, or not, FERC concluded that the process was nonetheless discriminatory.

The seller, FERC said, had experienced lower capital costs, because the state agency procuring capacity had sought only new generating capacity, benefitting sellers of new capacity at the expense of existing generators. So it substituted a proxy capital cost for the seller's actual capital cost.

FERC eventually reversed itself, allowing the NYISO to use Astoria's actual cost of capital. But it took nearly four years to do so. And, while the agency finally reached the right conclusion, it reiterated its belief that, in future cases, it might still approve of RTOs substituting hypothetical for actual capital costs.

Cases like this send markets confusing signals. Sellers, FERC has said, should be able to reflect their actual cost advantages in their bids. But RTOs must have the discretion to police the bids, to make sure that a seller's actual costs are not the result of anomalous advantage. Yet if the RTOs find no anomaly, FERC will disregard the seller's actual costs, and substitute its own judgment, by devising an artificial proxy figure to be used instead.

This type of micromanagement - disqualifying bids based on a seller's actual costs as too low - is not protecting competition, but distorting the competitive process. In the *Astoria* case, NYPA chose to solicit new generation in an open and transparent process. As a buyer, what obligation would NYPA have in a competitive market to invite existing generators into that process?

Had NYPA chosen to build its own new generation, would that have been discriminatory? Suppose it needed a particular type of generation, large scale solar for example. Then suppose there were no existing generators who could offer it. Would the solicitation be discriminatory? Would the winner have secured an anomalous advantage?

Are there other types of seller advantages FERC could gauge as anomalous or irregular? Should FERC disregard evidence of the seller's actual cost and include proxy costs, because the seller operates in a low wage right to work state?

What if the seller is a well-funded new company coming into existence in a cheap money era, and is not saddled with the higher capital costs of existing competitors? Is that an artificial advantage?

What if the seller has been encouraged to enter the market by the promise of subsidized loans from the same state that has made a procurement request for electric capacity? Should its bid be adjusted too?

These questions all highlight why FERC's bid floor rule changes are a futile attempt to solve a problem that FERC cannot even seem to define.

**Have FERC's Attempts to Define Bid Floor Rules Been Worth the Effort? Or Are the Rules a Solution in Search of a Problem?**

The Commission's efforts to stamp out artificial price suppression have provided neither sellers nor consumers any real sense of a predictable or consistently applied policy. But FERC's search for the right anti-price suppression strategy overlooks the biggest flaw in the entire undertaking. FERC never seriously grapples with whether bid floor rules have been a solution in search of a problem.

The downside of bid floors is obvious. They put self-supplying utilities and state agencies at risk that new capacity they have already contracted to build or purchase will not clear mandatory auction markets. Stated another way, FERC-approved bid floor policies place self-supplying utilities and state agencies at risk of paying twice for capacity. That is, they will have paid for their self-supply, but still have to purchase additional capacity to meet ISO minimum capacity requirements.

Why is that so? Because the self-supply - having failed to clear the auction - won't count toward those requirements. Rather than encouraging new entry, self-supplying utilities have argued, this policy tends only to benefit existing generators, by creating a price floor for their capacity.

The concept of a minimum offer price rule, it bears emphasis, is facially and substantively antithetical to competition. It imposes on certain sellers a price bid floor that, by its very nature, is intended to prop up capacity prices.

The MOPR, in its various forms, is aimed at curbing "artificial price suppression." FERC has incongruously subjected bidders to prior pricing constraints, without any showing that they have the intent, much less the ability, to suppress prices profitably. If preserving a competitive outcome is FERC's goal, however, that's a serious flaw in its approach.
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As the Supreme Court explained in *Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co.*, the party claiming predatory conduct must prove that the monopsonist or monopolist "has a dangerous probability of recouping the losses incurred" in its bidding strategy.

"Absent proof of likely recoupment," it reasoned, "a strategy of predatory bidding makes no economic sense because it would involve short-term losses with no likelihood of offsetting long-term gains."

Intent is critical to the analysis. As the Court also said in *Weyerhaeuser*, both predation by monopsonists and by monopolists "involve the deliberate use of unilateral pricing measures for anticompetitive purposes." (emphasis added). Finding "artificial price suppression" where it doesn't actually exist is a far worse problem than letting artificial price suppression - which is very rare - escape detection:

"[T]he costs of erroneous findings of predatory-pricing liability [are] quite high because '[t]he mechanism by which a firm engages in predatory pricing - lowering prices - is the same mechanism by which a firm stimulates competition,' and, therefore, mistaken findings of liability would 'chill the very conduct the antitrust laws are designed to protect.'"


**Performance Criteria: Getting Consumers the Capacity They Paid For**

Another problem with existing mandatory capacity markets was acknowledged by FERC during its Price Formation workshop, now two years ago. These markets require large payments to generators, but provide consumers no assurance that generators would actually deliver capacity when called upon.

All of FERC’s commissioners agree that there is a capacity performance issue. Consumers may be paying - and paying a lot - for capacity that isn't actually there when needed. But while there is FERC commissioner consensus about the problem, the commissioners are in strong disagreement whether the cure - yet another whack-a-mole effort - is worse than the disease.

FERC’s recent actions in PJM point up this dispute. Early in 2015, in what it termed the Capacity Performance Order, FERC accepted PJM's transition from its current capacity product to a new capacity product, a Capacity Performance Resource.

This new product, FERC concluded, would receive "enhanced incentives" - more money in layman's terms. In return, or so the goal was described, performance would improve to better meet PJM's reliability requirements.³

The order, though, elicited a stinging dissent from FERC's Chairman Bay. The majority, he argued, did not do a cost-benefit analysis of the proposal:

"Given the potential multi-billion dollar cost of the CPP and the burden consumers will be asked to bear, any analysis, no matter how rudimentary, would have been helpful before concluding this proposal is just and reasonable."

The discrepancies between rewards and penalties in the PJM proposal, he explained, could lead to an outcome where a "rational profit-maximizing resource could simply seek a capacity award in the auction, fail to perform during each performance assessment hour, and likely pay a penalty less than the carrot it has received." "One way of viewing the CPP," he bluntly concluded, "is that it fixes a several hundred million dollar uplift problem in the energy market with a multi-billion dollar redesign of the capacity market."

A few months after it had approved the new capacity resource product, FERC was asked to review the first transitional capacity auctions in which the new product was being sold. This too, proved to be a source of controversy.

Under the rules approved by FERC, sellers who had committed to supply capacity under the prior rules would remain subject to those rules, and would continue to be compensated. But they also had the right to make the capacity available under the new, presumably stricter availability and performance rules, in the transitional auctions. The kicker - and this proved to be the basis for Chairman Bay's second dissent - was that sellers taking this new option would receive higher capacity revenues and bonus performance payments without having to make incremental investments.

A number of parties, including states and public power utilities, pointed out that PJM would lower the cost of the auction by accepting bids in order of the incremental cost of using capacity compared to the former auction. FERC rejected this argument. Looking at incremental cost, it concluded, would disadvantage new bidders.⁷

Chairman Bay took strong exception to the majority's conclusion. "I would not have agreed to transitional auctions at all," he said. But having gone that route, he explained, the FERC majority had also ignored that their approach would violate PJM's duty to acquire capacity at the lowest reasonable cost, and impose millions of dollars in added expense to consumers with no attendant reliability benefit:
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"Resources that had previously sold capacity for those years can, if they choose, reoffer their capacity in the new auction. If the offer is accepted, they take on the additional obligations and receive the new, higher price. If the offer is refused (or they do not offer their capacity), the resources are still paid, and they retain their preexisting obligations at the preexisting price. In other words, if PJM buys capacity from a resource that is already entitled to a payment, it can eliminate that payment and save consumers money. If PJM buys capacity from someone else, it cannot avoid that preexisting cost. The transitional auction, then, provides PJM the valuable opportunity of avoiding payments that it is otherwise required to make.

PJM's methodology ignores the value of this opportunity. PJM's approach does not ensure greater system reliability. It simply permits consumers to be charged more in exchange for no additional benefit."

If Capacity Markets Were Intended to Solve the "Missing Money" Problem Created by Price Caps, Why is FERC Still Looking at Raising Price Caps?

Price caps in RTO and ISO markets date back to the late 1990s, when PJM first put a thousand dollar per megawatt-hour cap into place. Now all six RTOs and ISOs have them.

In early February this year, FERC issued a notice of a proposed rule that would raise the cap on energy bids in RTO markets, to the higher of a thousand dollars per megawatt-hour, or the "verified" actual incremental energy cost of the resource being bid.

This rationale seems at odds with the reason for a capacity market.

The existing price caps, FERC says, "may unjustly prevent a resource from recouping its costs by not permitting that resource to include all of its short-run marginal costs within its energy supply offer." This, it worries, "can suppress LMPs to a level below the marginal cost of production."

But, presumably, the capacity markets were the fix for these revenue shortfalls. Indeed, a number of economists have argued that if price caps were lifted, there would be no reason for a capacity market at all.8

So, it is fair to ask. If FERC views it necessary to ensure sellers participating in energy markets have a reasonable opportunity to remain revenue-adequate, through energy pricing, why are mandatory capacity markets necessary?

Endnotes

1 John Kwoka, Barriers to New Competition in Electric Generation, Report to the American Public Power Association, June 2008. See also 2006 Report to Congress on Competition in Wholesale and Retail Markets for Electric Energy, Wholesale Competition in Regions with Organized Electric Markets: "According to data from the Energy Information Administration (EIA), the percentage of generating capacity in the United States owned by independent power producers has grown from less than 2 percent in 1990 to more than 35 percent by 2005. A result has been to shift the risk of investment from customers to shareholders."


3 New York Public Service Commission v. New York Independent System Operator, Inc., 153 FERC ¶ 61,022,2015: "... a self-supply exemption would serve to enable load serving entities to make decisions on the purchase of capacity that best meets their needs".

4 Consolidated Edison Co. of New York, Inc. v. New York Independent System Operator, Inc., 150 FERC ¶ 61,139, 2015. There, the complainants argued, successfully, that NYISO's buyer side mitigation rules should be modified "to add a competitive entry exemption" because independent generators had no "intent" to suppress auction prices and "because the purpose of [buyer-side mitigation] is to prevent investment only where the intent and purpose of the investment is to depress capacity market prices." Id. at page 18. The "competitive entry" contracts, FERC agreed, should be exempt because they "are related more to economic development than to an attempt to subsidize a resource's entry into the market." Id. at page 101. An "attempt to subsidize," by definition, is an intentional act.

5 In rejecting the categorical renewables MOPR exemption in New England (called the Alternate Price Rule or APR in New England) that it permitted in PJM, FERC maintained that because of the vertical demand curve in New England, "an exemption for renewables is likely to have a greater price depressing effect on capacity prices in New England than in PJM." New England States Committee on Electricity v. ISO New England, Inc., 142 FERC ¶ 61,108, 2013. But FERC's rationale for accepting the renewables exemption in PJM was not that renewables would have no effect on auction prices in that market, but that renewables would have no incentive to bid
below cost, so there was no reason to worry about their participation. *PJM Interconnection, L.L.C.*, 135 FERC ¶ 61,022, 2013: “… wind and solar resources are a poor choice if a developer’s **primary purpose** is to suppress capacity market prices.” These inconsistent explanations for the approval and rejection of the renewables exemption send confusing and conflicting messages including the message that intent is both relevant and irrelevant.

6 *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208, 2015, finding that PJM’s: “… existing payment features not only inadequately incent resource performance, but may perversely select less reliable resources over more reliable resources because a capacity seller’s decision to forego investments that would improve resource performance allows it to offer in PJM’s capacity market at a lower price and be paid the clearing price while providing less reliable service.”

7 *Id.* at page 34.


*Editor's note:* **Authors Patterson and Reiter provide us this perspective on capacity markets in two parts. The first part is here. The second will run next month, in the June 2016 issue. In June, a more comprehensive version of the entire article, both parts, with extensive references, shall be available online.**