

filed Initial Comments on October 2, 2018, and, as noted therein, is a party to this consolidated proceeding.

I. ICC POSITION AND RECOMMENDATION

The June 29 Order requires PJM to address a capacity market design that accommodates states' public policy resource preferences and allow resources that receive out-of-market support to remain online.² Recognizing that the Commission's proposed expanded MOPR, would, by itself, act as a direct barrier to achieving accommodative outcomes, the Commission proposed the resource-specific FRR alternative that would allow, on a resource-specific basis, resources to choose to be removed from the PJM capacity market, along with a commensurate amount of load.³

It remains the ICC's position that no party to these consolidated proceedings demonstrated that state public policies rendered PJM's existing capacity market design unjust and unreasonable. The ICC reiterates its opposition to mitigating valid state jurisdictional laws and policies as is being undertaken in this proceeding. However, if the existing MOPR is expanded in any way, workable measures must be in place prior to expanded MOPR implementation so as to restore the level of accommodation that currently exists for state public policy resource preferences. The resource carve-out ("RCO") proposal in PJM's Initial Submission⁴ fails to meet the Commission's standard for accommodation and is not just and reasonable.

The MOPR proposed in PJM's Initial Submission in this case would over-mitigate via a MOPR floor price that is too high. In addition, PJM's two-stage auction proposal has multiple

² June 29 Order, at P 8.

³ *Id.*, at P 160.

⁴ Initial Submission of PJM Interconnection, L.L.C., Docket No. EL16-49-000 *et al.*, filed October 2, 2018, (*hereinafter*, "PJM Initial Submission,") at 50.

flaws that will result in the commitment of too much capacity at a clearing price that is too high. As a result, PJM's proposal will doubly harm electricity consumers. Finally, PJM's proposal for an infra-marginal rent payment is unnecessary to achieve the Commission's efficient price signal objective and punitive for RCO unit owners and the electricity consumers who will be purchasing capacity from RCO units.

In these reply comments, the ICC addresses both the expanded MOPR element and the accommodation element discussed in the June 29 Order and identifies elements submitted by parties that the Commission should consider and others that the Commission should reject in order to develop a just and reasonable replacement rate in this case.

The ICC recommends that the Commission:

- Reject PJM's proposed Stage 2 auction. If the Commission does not reject PJM's proposed Stage 2 auction, then the Commission should direct PJM to reflect all resources that choose the Resource-Specific FRR Alternative which PJM refers to as "RCO" units on the Stage 2 supply curve at their applicable MOPR floor price,⁵ or ideally, at the price that a unit would have offered absent receipt of the state policy revenue.
- Reject PJM's proposed infra-marginal rent payment proposal.
- Reject PJM's proposal that a unit choosing RCO must commit all of its capacity to RCO. The ICC supports the proposal submitted by the Joint Brief of Consumer Advocates, NGOs and Industry Stakeholders that would allow resources to participate partially in an FRR-RS mechanism and partially in the base residual auction ("BRA") at the mitigated price level, subject to certain requirements consistent with existing PJM tariff rules that allow a resource to segment its capacity into multiple offer blocks.⁶
- Adopt the proposal in the Joint Brief of Consumer Advocates, NGOs and Industry Stakeholders that resources shall not be obligated to continue to elect FRR-RS for a minimum period.⁷

⁵ If the Commission decides not to direct PJM to reflect all RCO units on the Stage 2 supply curve at their applicable MOPR floor price, then at least, the units that chose RCO but would have cleared stage 1 at their MOPR floor price should be included in the Stage 2 supply curve at their MOPR floor price.

⁶ Joint Brief of Consumer Advocates, NGOs and Industry Stakeholders, Docket No. EL18-178-000 et al., filed October 1, 2018, (*hereinafter*, "Joint Brief of Consumer Advocates, NGOs and Industry Stakeholders"), at 11.

⁷ Joint Brief of Consumer Advocates, NGOs and Industry Stakeholders, at Exhibit A.

- Direct PJM to include a provision whereby a targeted resource that clears a BRA at its MOPR floor offer price will no longer be subject to MOPR regardless of the term of the subsidy. The ability of the unit to clear at that offer price demonstrates the market’s need for the unit.
- Direct PJM to offer resources that choose the RCO, a choice between: (1) being carved out of PJM’s auction supply curve along with an associated commensurate amount of load being carved out of PJM’s auction demand curve; or (2) being cleared in PJM’s Stage 1 auction.
 - Direct PJM to develop associated rules and procedures for resources that choose option (1), modeled on those currently employed in PJM’s existing FRR carve-out program, including reserve margin requirements and minimum internal resource requirements when the commensurate associated load is located in a separately modeled locational deliverability area and the RCO unit is in a different location.
 - Direct PJM to adjust for the over-procurement that results from resources that choose option (2) and have \$0 offers submitted by PJM in Stage 1 of the auction.
 - Reject PJM’s proposal to prohibit resources that choose option (2) and have \$0 offers submitted by PJM in Stage 1 of the auction from participating in incremental auctions.
- Reject PJM’s default proposal to allocate the capacity value of the RCO resource as a pro-rata credit across all load in the state in which the RCO unit is located on the basis of load’s proportional share of the state’s Daily Unforced Capacity Obligation, and direct PJM to levy the auction charge on the identified associated commensurate load. The ICC supports provision of an option whereby the RCO unit owner in conjunction with the applicable state regulatory authority could truly carve out the RCO unit and also opt to have PJM collect payments to FRR-RS resources consistent with the FRR-RS documentation confirmed by the LSE or other relevant entity, for example, according to the terms of a bilateral contract with an LSE, or consistent with the state-sponsored procurement process.⁸
- Direct PJM to correct the proposed formulas used to calculate the MOPR floor offer price to properly account for permissible out-of-market revenue.
- Direct PJM to grandfather any generator having a bilateral sales contract for capacity with a load serving entity in the PJM region entered into prior to June 29, 2018 and not subject that generator to the MOPR during the term of the bilateral contract.
- Direct PJM to cap the calculated default MOPR floor prices at the level of point (a) on the Variable Resource Requirement (“VRR”) curve for each BRA.

⁸ Joint Brief of Consumer Advocates, NGOs and Industry Stakeholders, at 10.

- Reject any proposal that proposes to treat payments, assurances, or other such benefits provided by taxpayers, rather than by electricity consumers, as actionable subsidies.
- Direct PJM to develop: (1) a realistic MOPR implementation schedule which may mean additionally postponing the next BRA; and (2) transition mechanisms in cases where state legislative action is needed to make the Resource Specific FRR Alternative usable, but not achievable on the schedule adopted under (1).
- Reject PJM’s suggestion that state public policy legislation constitutes an attempt to exercise monopsony power.
- Direct PJM to develop the competitive carve-out auction approach proposed by the Maryland Public Service Commission and vet its design elements with PJM stakeholders.⁹
- Direct PJM to work with stakeholders to develop and file a carbon pricing proposal on a reasonable timeline.
- Direct PJM to increase its focus on, and accelerate its examination of improvements in price formation in Energy and Ancillary Services markets as a means to achieve resource adequacy and required resilience because continued attempts to fix PJM’s flawed capacity construct are futile.

II. REPLY COMMENTS

A. Carving Out Resources with Actionable Subsidies vs. Settling Resources with Actionable Subsidies in the Auction.

1. The Resource Carve Out Option Does not Carve Out Targeted Resources.

PJM explains that it chose the term Resource Carve-Out (“RCO”) for its proposal rather than “unit-specific FRR” because the RCO proposal “differs sufficiently from PJM’s existing zonal FRR to warrant a distinct name in order to avoid confusion.”¹⁰ Part of the problem with PJM’s RCO proposal is that it unnecessarily differs from PJM’s existing FRR program in ways it need not and should not differ.

⁹ Initial Comments of Maryland Public Service Commission, Docket No. EL16-49, *et al.*, filed October 2, 2018, Appendix A.

¹⁰ PJM Initial Submission, at n.15.

Despite PJM’s repeated claims,¹¹ PJM’s RCO proposal does not actually carve out targeted resources. In its June 29 Order, the Commission proposed a resource-specific FRR Alternative option that would “allow, on a resource-specific basis, resources receiving out-of-market support to choose to be removed from the PJM capacity market, along with a commensurate amount of load, for some period of time.”¹² PJM states that resources choosing the RCO would not participate in, and would not be offered in PJM’s capacity auction.¹³ PJM also asserts that these resources will be completely isolated from PJM’s capacity market.¹⁴ But neither of these characterizations of the RCO mechanism is consistent with PJM’s actual RCO proposal. Counter to the Commission’s instructions, PJM’s proposal will not permit a RCO unit to be removed from PJM’s capacity auction. Rather, PJM’s proposal constitutes a carve-out only in the sense that, under RCO, the resource would not receive revenue from PJM’s capacity auction (although, under PJM’s proposal, it receives its capacity commitment there) and the associated commensurate load would ultimately not pay for capacity through PJM’s capacity auction (although, under PJM’s proposal, the load will pay the auction cost and then receive an offsetting credit).

PJM plans to clear the RCO units in Stage 1 of its auction.¹⁵ As PJM puts it, “PJM proposes to deem that sellers are offering such resources at a price of zero dollars.”¹⁶ This is

¹¹ See, e.g., PJM Initial Submission, at 50 (“Consistent with the June 29 Order, the Resource Carve-Out option provides an avenue for a Capacity Market Seller of a Capacity Resource with Actionable Subsidy, to choose such resource to be carved out from the capacity market.” (emphasis added)).

¹² June 29 Order, at P 160.

¹³ PJM Initial Submission, at 10.

¹⁴ *Id.*

¹⁵ PJM proposes that if RCO is selected, the unit’s entire output must be carved out. PJM does not explain the reason for the restriction. The ICC supports the proposal submitted by the Joint Brief of Consumer Advocates, NGOs and Industry Stakeholders that would allow resources to participate partially in an FRR-RS mechanism and partially in the base residual auction at the mitigated price level, subject to certain requirements consistent with existing PJM tariff rules that allow a resource to segment its capacity into multiple offer blocks. Joint Brief of Consumer Advocates, NGOs and Industry Stakeholders, at 11.

¹⁶ PJM Initial Submission, at 57.

equivalent to PJM forcing RCO units into Stage 1 of the auction at zero price, thereby guaranteeing that those units clear Stage 1. PJM states that, “As a result, Carved Out Resources receive a commitment first and are counted toward meeting the region-wide reliability requirement.”¹⁷ The means through which an RCO unit obtains its capacity commitment is clearing in Stage 1 of PJM’s auction. Regardless of the merits of this approach, it cannot reasonably be referred to as a carve-out.

2. While PJM’s Proposed Method of Clearing RCO Units Respects Zonal Transfer Limits, There is No Justification for Imposing an Excess Reserve Margin Requirement on RCO Resources.

PJM explains that its proposed method of clearing the RCO units guarantees that the Capacity Emergency Transfer Limit is not violated when taking into account the Carved Out Resources and those that clear in the auction.¹⁸ The ICC agrees that respecting the zonal transfer limits is a merit of PJM’s RCO unit clearing proposal, but PJM’s proposal is not the only method for assuring those transfer limits are respected.¹⁹

One consequence of PJM’s proposal to clear the RCO units in PJM’s Stage 1 auction is that the commensurate load associated with each RCO unit is forced to procure the same reserve margin as the load in the auction that is not associated with a RCO unit.²⁰ PJM refers to this amount of reserves as the “appropriate amount,”²¹ but does not explain why it is appropriate to force load committing to capacity outside of PJM’s auction to bear the same level of reserves produced in the auction from which the load is ostensibly carved out of or removed from. PJM’s auction is designed to clear more load than is needed to meet its target margin reserve if offer

¹⁷ PJM Initial Submission, at 57.

¹⁸ *Id.*

¹⁹ For example, PJM’s existing FRR program uses an administratively determined minimum internal resource requirement for this purpose.

²⁰ PJM Initial Submission, at 57.

²¹ *Id.*, Affidavit of Adam J. Keech, at P 5.

prices are sufficiently low. There is no justification for imposing an excess reserve requirement resulting from low auction prices to load committing to capacity outside of PJM's auction that is not subject to those auction prices. In addition, imposing this requirement is in distinct contrast to PJM's existing FRR program where FRR load is truly carved out and only required to carry capacity up to the target reserve margin.²²

PJM's BRA for the 2021-2022 delivery year produced a reserve margin that is thirty-six percent in excess of the target reserve margin.²³ PJM makes no attempt to reconcile the different reserve margin requirement for load under the current FRR program and load under its proposed RCO program. PJM asserts that if the load associated with the RCO unit is only required to meet the target reserve margin, that load will be "leaning on the system."²⁴ That is not the case because satisfaction of the *target* reserve margin requirement assures that the load associated with the RCO unit is not leaning on the system and is carrying the required level of reserve. PJM's unilateral decision to procure higher levels of reserves through the auction is unsupported by any reliability or economic justification. Contrary to PJM's suggestion, the higher level of reserves are not necessary to meet system operations requirements. Imposing a higher reserve requirement on the load associated with the resources in the RCO program than load associated with resources carved-out under the existing FRR program is both unduly discriminatory and unnecessary to ensure reliability.

The Commission requested comment on "how the resource-specific FRR Alternative would accommodate required reserves for the load pulled from the PJM capacity market."²⁵ The

²² See PJM Reliability Assurance Agreement, Schedule 8 (Determination of Unforced Capacity Obligations), available at <https://www.pjm.com/directory/merged-tariffs/raa.pdf>.

²³ See 2021/2022 RPM Base Residual Auction Results, at 1. <https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-base-residual-auction-report.ashx?la=ene>

²⁴ PJM Initial Submission, Affidavit of Adam J. Keech, at 8.

²⁵ June 29 Order, at P 169.

term “required reserves” appears aimed at the target reserve margin and should be consistent with the current FRR program requirements. However, PJM’s proposal will force RCO resources and their associated commensurate load to meet capacity auction-determined reserve margin requirements but denies such resources the benefits of clearing the capacity auction, particularly, the payment for capacity as discussed below.

3. PJM’s Claims of Complexity and System Operations Inconsistency Associated with Actually Carving Out of the Auction Supply and Demand Curves both RCO Units and their Associated Commensurate Load are Overstated.

PJM criticizes alternative approaches that remove a RCO unit and its commensurate load from the auction supply and demand curves as overly complex²⁶ and inconsistent with system operations.²⁷ Yet, PJM provides no evidence that reconciles its criticism with the existing FRR program that completely carves out both resources and a commensurate amount of load. The current FRR program addresses locational issues associated with instances where the carved out resource and the carved out load are in different locations through minimum internal resource requirements. PJM could develop a similar solution in this case without complexity. The most important of these locational issues is when the associated commensurate load is in a separately-modeled LDA and the RCO unit is not in that LDA. These instances are likely to be limited. For these reasons, PJM’s claims of complexity and system operations inconsistency associated with actually carving out of the auction supply and demand curves both RCO units and their associated commensurate load are overstated.

²⁶ PJM Initial Submission, Affidavit of Adam J. Keech, at 11.

²⁷ *Id.*, at 7 and 12.

4. Forcing RCO Units into Stage 1 at a \$0 Offer Price Results in the Commitment of Resources Well in Excess of the Efficient Quantity.

By forcing the RCO units into Stage 1 at a \$0 offer price, Stage 1 commits a quantity of resources, including the RCO units, which is much greater than the efficient quantity. To the extent that the zero-price offers that PJM forces into Stage 1 from the RCO units suppress the price at which the supply curve intersects the VRR curve, the mechanics of the downward-sloping VRR curve result in the quantity committed in Stage 1 being higher than the “efficient” level – even by PJM’s standards.

5. PJM’s Default Rule Regarding the Allocation of the Capacity Value of the RCO Resource is Potentially Harmful and Unnecessary.

Another negative consequence of clearing the RCO units in Stage 1 of the auction is that PJM will, in accordance with existing auction rules, “allocate the capacity value of the RCO resource as a pro-rata credit across all load in the state on the basis of load’s proportional share of the state’s Daily Unforced Capacity Obligation.”²⁸ PJM further explains that, as the default rule, PJM’s proposal will ensure that “for each Capacity Resource that has elected the RCO option, all LSEs located in the same state as that resource will have their Locational Reliability Charge reduced by a Resource Carve-Out offset.”²⁹ This provision effectively precludes the bilateral contracting option proposed by the Joint Consumer Advocates, NGOs and Industry Stakeholders.³⁰ Illinois supports this option because capacity resources would have the option to assign their capacity forward outside of PJM’s reliability pricing model (“RPM”) directly to specific LSEs, and potentially outside the state in which the RCO resource is located, all without state facilitation.³¹ PJM also arbitrarily and improperly credits load that may not be the load

²⁸ PJM Initial Submission, at 58-59.

²⁹ *Id.*, at 61.

³⁰ Joint Brief of Consumer Advocates, NGOs and Industry Stakeholders, at 6.

³¹ *Id.*, at Exhibit A.

ultimately compensating the RCO for its capacity value. Such an approach cannot be implemented when the RCO resource is not physically located within PJM, i.e., when the RCO unit is external to PJM. If a true carve-out approach is used, the load associated with the RCO unit should be identified prior to PJM's BRA so that it can accurately be removed from the auction demand curve. If PJM's proposed pseudo carve-out approach is used, the load associated with the RCO unit need not be identified until just prior to the delivery year so that PJM can correctly bill and credit. Absent state legislation requiring all load to make proportionate capacity payments to ZEC recipients, PJM's proposed default rule is both harmful and unnecessary.

6. RCO Units Should not be Prohibited from Participating in the Incremental Auctions.

While PJM's proposal would clear RCO resources in Stage 1 of the auction, PJM withholds most of the benefits of clearing the auction from those resources. First, PJM withholds a capacity payment.³² PJM also proposes to withhold other auction benefits, like participation in its incremental capacity auctions.³³ PJM's only justification for prohibiting an RCO unit from participating in its incremental auctions is that "those resources have elected to not participate through PJM's capacity market and should not be able to rely on the capacity market in the event replacement capacity is needed."³⁴ Contrary to PJM's characterization, under PJM's proposal, RCO units cannot opt-out of participation in Stage 1 of PJM's capacity auction. While PJM calls its proposal a "carve-out," it is not a carve-out proposal and, as explained above, PJM will force RCO units to participate in PJM's Stage 1 auction, rather than permitting them to truly carve-out. PJM seeks to have it both ways. If the Commission accepts PJM's

³² PJM Initial Submission, at 50.

³³ *Id.*, at 56.

³⁴ *Id.*, at 64.

proposal to force RCO participation in the auction, PJM should not also be allowed to unnecessarily withhold auction participation benefits such as participation in the incremental auctions.

B. PJM’s Extended RCO Proposal.

PJM’s “Extended” Resource Carve-Out proposal would add two elements to its proposed Resource Carve-Out proposal: (1) a Stage 2 auction; and (2) mandated infra-marginal rent payments to the so-called “in-between” units that clear the Stage 2 auction but did not obtain a capacity commitment in Stage 1.

1. PJM’s Stage 2 Auction Misses the Mark.

PJM argues that the one-stage auction element of its RCO proposal “offers the Commission a defensible FPA-compliant path,”³⁵ but tacitly acknowledges that its proposal is not, and need not be, perfect when it states that “the just and reasonable standard is not one of perfection.”³⁶ However, the Extended Resource Carve-Out proposal with its Stage 2 auction feature, which PJM describes as a “mechanism to restore prices in the residual capacity market to the theoretically correct competitive level,”³⁷ does not accomplish its stated objective. Even for the sake of argument, accepting PJM’s “theoretically correct competitive level,” PJM’s objective to use a Stage 2 auction to “restore competitive pricing”³⁸ misses the mark, both because it aims at an incorrect target and because it fails to hit the target at which it aims.³⁹ As explained in

³⁵ PJM Initial Submission, at 8.

³⁶ *Id.*, at 4-8.

³⁷ *Id.*, at 8.

³⁸ PJM Initial Submission, at 65.

³⁹ It is ironic that PJM’s witness, Dr. Hung-po Chao notes that when there is an external divergence between the marginal social cost (or value) of particular domestic production and the marginal private cost (or value) of that production, a state-sponsored subsidy program to assist domestic production could, in principle, be justified as a second-best policy intervention to promote the economic welfare (Affidavit of Hung-po Chao, Ph.D., at P5), but PJM disregards that possibility in the remainder of its filing and declares that all so-called subsidized resources are inherently uneconomic (PJM Initial Submission, at 8) and uneconomic (PJM Initial Submission, at 68).

Section II.A above, PJM’s proposal to force the RCO units into Stage 1 supply curve at \$0 (i.e., an offer price likely lower than the targeted unit would have submitted absent the receipt of state public policy revenue), the quantity committed in Stage 1 is likely too high. As detailed below, PJM’s proposal to completely exclude RCO units from the Stage 2 supply curve will likely result in a clearing price established in Stage 2 that is too high. Multiplying the price set in Stage 2 by the quantity set in Stage 1 produces the auction cost charged to retail customers, and that cost is likely to be doubly too high. Here, PJM’s bias against states choosing to compensate for environmental attributes not recognized in its flawed capacity market is unduly discriminatory and preferential.

a. Excluding RCO Units from the Stage 2 Supply Curve will Result in a Stage 2 Clearing Price that likely will Exceed the “Competitive” Clearing Price Resulting in Excessively High Prices to Consumers.

PJM proposes to construct the Stage 2 auction supply curve by taking all of the price offers from Stage 1, except for offers representing RCO units. In Stage 2, PJM will not use any price offers from the RCO units—not \$0 offers, not the price offers that would have been submitted absent MOPR or a proxy for such, not even PJM’s alleged “theoretically correct” offer price for the RCO units, which, according to PJM, would be their MOPR floor price. Rather, for Stage 2, “PJM will remove from the supply stack all resources that elected the RCO option.”⁴⁰ Despite this artificial construction of the Stage 2 supply curve, PJM will make no adjustment to demand (load) or the VRR curve.⁴¹

PJM justifies this exclusion of RCO units’ offers with the statement that, “[t]he expanded MOPR ensures that all seller-submitted offers are competitive.”⁴² Such a statement is likely not

⁴⁰ PJM Initial Submission, at 66.

⁴¹ *Id.*, at 66.

⁴² *Id.*, at n. 131.

true. PJM’s MOPR proposal will apply to units determined by PJM as being a material resource, which PJM has determined to have a material subsidy. For units that do not fall into that administratively determined set, most notably self-supply resources and resources owned or controlled by vertically integrated utilities, PJM enforces no minimum offer requirement, and imposes no requirement to offer “competitively,” and PJM does not attempt to confirm whether offers from those units are “competitive.” As the Commission noted, selective application of competitiveness tests is unduly discriminatory.

Under PJM’s proposal, the intersection of the unadjusted VRR curve and the artificial Stage 2 supply curve will establish the Stage 2 clearing price.⁴³ Because PJM excludes RCO units from any position on the Stage 2 supply curve, the Stage 2 clearing price will over-shoot the “competitive” price level, even under PJM’s selective definition of competitive. To achieve PJM’s stated objective of a “competitive” price level,⁴⁴ PJM must represent the RCO units on the Stage 2 supply curve at the offer prices those units would have offered had they not received public policy revenues. Because PJM does not know what price those units would have offered absent the state public policy, PJM should use a proxy offer price.⁴⁵ The proxy offer price that PJM proposed in its original Stage 2 Repricing Proposal (Docket No. ER18-1314) was the RCO unit’s MOPR floor offer price. While the MOPR floor price exceeds any reasonable proxy offer price, using that offer price level would be less onerous than completely excluding the RCO units

⁴³ PJM Initial Submission, at 66.

⁴⁴ *Id.*, at 66-67.

⁴⁵ The ICC supports the proxy offer price proposed by the PJM Consumer Representatives (comprised of the PJM Industrial Customer Coalition (“PJMICC”), Industrial Energy Consumers of America (“IECA”), Illinois Industrial Energy Consumers (“IIEC”), the Pennsylvania Energy Consumer Alliance (“PECA”), the Electricity Consumers Resource Council (“ELCON”), the Industrial Energy Consumers of Pennsylvania (“IECPA”), and Ohio Manufacturers’ Association Energy Group (“OMA-EG”). Consumer Representatives proposed that the Revised MOPR offer price should equal the average offers from “like resources” that cleared the BRA over the past three years, excluding any offers that were subject to a MOPR or Revised MOPR during those past three years. (Comments of the PJM Consumer Representatives, Docket Nos. EL18-178-000 *et al*, filed October 2, 2018, at 12).

from the Stage 2 supply curve, and likely produce a price closer to PJM's stated competitive objective.

Completely excluding all RCO units from the Stage 2 supply curve implicitly presumes that no targeted unit that chooses RCO would have cleared PJM's Stage 1 auction had it offered into Stage 1 at its MOPR floor price. That is not a reasonable presumption. Under PJM's proposal, targeted resource owners will have to decide between being MOPRed in Stage 1 and the RCO option. Resource owners will weigh the likelihood and risk of either: (1) not clearing Stage 1 at their applicable MOPR floor price and not receiving a capacity commitment or corresponding capacity revenue stream; or (2) choosing RCO, obtaining a capacity commitment and having to seek an alternative capacity revenue stream. To the extent that the negative consequences of choosing MOPR and over-estimating the likelihood of clearing Stage 1 at the applicable MOPR floor price are greater than the negative consequences of choosing RCO and over-estimating the likelihood of obtaining a capacity revenue stream, targeted units may err on the side of choosing RCO. To the extent that a unit chooses RCO, but would have cleared Stage 1 at its applicable MOPR floor price,⁴⁶ PJM's Stage 2 produces incorrect clearing prices.

PJM should reflect that unit on the Stage 2 supply curve at its MOPR floor price. Indeed, in order to obtain PJM's theoretically competitive price objective, and accepting *arguendo* that the MOPR floor price represents the "competitive" offer price level, PJM would need to represent on the Stage 2 supply curve every RCO unit that has a MOPR floor price that would either be infra-marginal or marginal in the Stage 2 auction, because the ostensive purpose of Stage 2 is to identify the "competitive" price. Since PJM will not know the set of RCO units that would either be infra-marginal or marginal in the Stage 2 auction prior to the close of the Stage 2

⁴⁶ PJM will have this information at the close of the Stage 1 auction.

auction, PJM should reflect all RCO units on the Stage 2 supply curve at their applicable MOPR floor price.⁴⁷

b. Including RCO Resources on the Supply Curve in Stage 2 will not Result in those Resources “Receiving a Windfall.”

PJM explains that the Extended RCO proposal is designed to prevent targeted units from receiving a windfall.⁴⁸ However, including RCO units in the Stage 2 supply curve at their applicable MOPR floor price will not result in a windfall for targeted resources. Because RCO units receive no compensation from PJM’s capacity auction, regardless of whether or not they are represented on the Stage 2 supply curve, they will receive no windfall.⁴⁹ Likewise, units that choose to offer into the Stage 1 auction at their applicable MOPR floor price and do not clear will not obtain a capacity commitment and will not receive a windfall regardless of whether or not RCO units are represented on the Stage 2 supply curve. Finally, units that choose to offer into the Stage 1 auction at their applicable MOPR floor price and clear will receive the Stage 2 clearing price and will not receive a windfall regardless of whether or not RCO units are represented on the Stage 2 supply curve.

c. State Policy Initiatives are not an Exercise of Monopsony Power.

In an attempt to find some support for its Stage 2 auction proposal, PJM again improperly maligns state legislative policy initiatives and incorrectly claims them to be an exercise of monopsony power.⁵⁰ PJM asserts that so-called “subsidizing states” “use uncompetitive

⁴⁷ Because the applicable MOPR floor price likely over-shoots the offer price that the unit would have submitted absent the receipt of state policy revenue, the Stage 2 supply curve construction recommendation made here will likely still produce a clearing price higher than the “competitive” level.

⁴⁸ PJM Initial Submission, at 70.

⁴⁹ The only possible exception to this statement would be if the Commission accepts PJM’s proposal to make infra-marginal rent payments and makes targeted units eligible to receive these infra-marginal rent payments, which the Commission should not do.

⁵⁰ PJM Initial Submission, at 11.

resources to reduce clearing prices for their auction purchases below competitive levels.”⁵¹ To support this conspiracy theory, PJM cites only “testimony offered to the New Jersey assembly” that PJM characterizes as showing that “forestalling threatened retirements of the 3,360 MW Salem and Hope Creek nuclear plants would cost about \$300 million in subsidy, but ‘save’ New Jersey \$400 million in wholesale power expenditure.”⁵² PJM then extends its New Jersey observation to accuse all state legislatures of exercising monopsony power. PJM’s characterization of state legislatures as monopsonizers is incorrect.

It is notable that the United States Court of Appeals for the Seventh Circuit did not note any monopsonization with respect to Illinois’ ZEC law. Indeed, the court did not note any price suppression of the kind alleged by PJM and the Commission. Rather, the court noted only a potential impact of ZEC on PJM auction prices via normal supply and demand mechanics.

Specifically, the court stated:

The zero-emissions credit system can influence the auction price only indirectly, by keeping active a generation facility that otherwise might close and by raising the costs that carbon-releasing producers incur to do business. A larger supply of electricity means a lower market-clearing price, holding demand constant.⁵³

The Future Energy Jobs Act (“FEJA”), Illinois’ Public Act 99-0906 (Ill. 2016), is sweeping legislation aimed at ensuring the citizens of Illinois have access to and participate in the clean energy economy. FEJA contains innumerable provisions incenting the adoption of energy efficiency measures and the deployment of both utility-scale and distributed clean wind, solar, and other renewable energy. Nuclear energy is the predominant form of generation in the ComEd Zone of PJM. Preserving this zero emission form of generation is consistent with, and

⁵¹ PJM Initial Submission, at 68.

⁵² *Id.*, at 69.

⁵³ *Electric Power Supply Association v. Star*, 904 F.3d 518, 524 (7th Cir. 2018) (upholding Illinois Zero Emission Credit program).

essential to, achieving Illinois' clean energy goals.⁵⁴ PJM fails to acknowledge that FEJA is a reflection of Illinois' legitimate environmental policy. PJM's claim that FEJA suppresses capacity prices is unsupported by any evidence. PJM fails to acknowledge or address the legitimacy of Illinois' pursuit of environmental goals. The premiums Illinois pays for clean energy are targeted at reducing negative environmental externalities. PJM's failure to recognize or acknowledge these environmental externalities leads it to an economically incorrect assessment of state policies. At bottom, PJM's proposal is an unlawful attempt to contravene those legitimate state environmental policies.

2. The Commission Should Reject PJM's Infra-marginal Unit Rent Charge.

PJM's Extended RCO proposal will pay each unit that clears Stage 2 of the auction, but does not obtain a capacity commitment in Stage 1 (so-called infra-marginal units), the difference between the Stage 2 clearing price and the unit's offer price.⁵⁵ PJM proposes to collect the revenue necessary to make these payments from the RCO units.⁵⁶ PJM refers to this as the infra-marginal unit rent charge.⁵⁷

A generating unit subject to regulation should only be entitled to the opportunity to earn a return of, and a just and reasonable rate of return on, invested capital that is used and useful. A regulated generating unit participating in PJM's capacity auction is not entitled to receive guaranteed infra-marginal rents. The units that clear the Stage 2 auction, but did not obtain a capacity commitment in Stage 1, which PJM refers to as "displaced sellers"⁵⁸ and other commenters refer to as "in-between" units, are not used and useful for capacity.

⁵⁴ FEJA, PA 99-0906, Legislative Findings, Section 1.5(4)

⁵⁵ PJM Initial Submission, at 71.

⁵⁶ *Id.*, at 74.

⁵⁷ *Id.*, at 71.

⁵⁸ PJM Initial Submission, at 73.

PJM characterizes its infra-marginal rent proposal as being similar to New England ISO's CASPR proposal. PJM states that the result of its proposal is "comparable to a seller with a cleared infra-marginal offer that pays a second seller to take on its position, at a price equal to the first seller's avoidable costs."⁵⁹ This is not correct. Even if the comparison were apt, PJM leaves out the critical element whereby under the CASPR proposal, the "second seller" would be required to retire.⁶⁰ But, under PJM's proposal, the so-called "displaced seller" is permitted to stay on year after year, with the annual opportunity to receive infra-marginal rents, while providing no capacity value.⁶¹ PJM acknowledges that the units which it intends to reward with infra-marginal rent payments, "may be older, less efficient resources that are marginally economic for the current delivery year, but are at risk of becoming uneconomic as newer, more efficient, lower-cost resources continue to come on line."⁶² PJM characterizes its infra-marginal rent payment proposal as sending a signal to the in-between units that "it's time to consider retirement."⁶³ However, not providing infra-marginal rent payments to these units would more clearly send the correct signal, and would also be more consistent with CASPR's retirement requirement.

PJM's proposal to collect the infra-marginal rent payments from the units choosing RCO makes the proposal even more undesirable. The RCO units are ostensibly removed from the auction, but nevertheless have a capacity obligation and all of the costs and risks associated with that obligation. They must search for a source of capacity compensation elsewhere, preferably market-based. In addition to trying to recover their capacity costs, PJM's proposal would also

⁵⁹ PJM Initial Submission, at 73.

⁶⁰ *Id.*

⁶¹ *Id.*, at 73.

⁶² PJM Initial Submission, at 74.

⁶³ *Id.*

impose an additional set of costs—one stemming from PJM’s auction which PJM claims the RCO units will be carved out of. Because state programs that compensate resources for their environmental attributes are inherently different than capacity purchase programs, the ability for such resources to obtain capacity compensation through state support is a decidedly uncertain prospect. Nevertheless, the RCO units will somehow be required to collect revenues above and beyond what is needed to compensate them for their capacity value in order to compensate their competitors which likely are the very units imposing the negative externalities (air emissions) on society that motivated the state public policy in the first place. The Commission must reject PJM’s proposed infra-marginal unit rent payment proposal.

C. PJM’s Proposed Default MOPR Floor Prices Are Too High.

The MOPR floor price is a critical element in any MOPR proposal. The correct floor price is not revealed in a market. Rather, under PJM’s approach, the correct floor price would intuitively be the price at which a unit would have offered into PJM’s capacity auction absent entitlement to state public policy revenue. Because the MOPR floor price is not revealed through the market, calculation of the MOPR floor price will have to be determined administratively. PJM’s proposed administrative determination process is flawed and would result in MOPR floor prices that are too high.

1. PJM’s Proposed Formula for Calculating the MOPR Floor Offer Price does not Account for Permissible Out-of-Market Revenues.

PJM uses the term “out-of-market” revenue in a manner lacking precision. However, in its June 29 Order, the Commission clearly stated “[w]e need only address the forms of state support that we find, in this proceeding, render the current Tariff unjust and unreasonable—i.e., out-of-market revenue that a state either provides, or requires to be provided, to a supplier that

participates in the PJM wholesale capacity market.⁶⁴ Generators have opportunities to obtain out-of-market revenue that are not encompassed within the Commission’s definition; specifically, revenue that is not provided by a state or required to be provided by a state.⁶⁵ These potential revenue streams include proceeds from the sales of non-electric byproducts in an open market (*e.g.*, steam) and proceeds from arms-length bilateral contract sales. The June 29 Order reveals no intent to discourage or penalize generating companies for their receipt of these kinds of out-of-market revenues, even if the generator also happens to receive revenue of the type targeted by the Commission.

Nevertheless, PJM’s proposed formula for calculating the MOPR floor price does not account for these types of permissible out-of-market revenues. For example, for an existing resource (one that has cleared in an RPM Auction for any prior Delivery Year), PJM proposes that the MOPR floor price be equal to “the resource-specific Avoidable Cost Rate net of the Projected PJM Market Revenues for the resource.”⁶⁶ PJM explains that the Projected PJM Market Revenues will be the resource’s “estimated energy and ancillary services markets revenues.”⁶⁷ For a new resource (one that has not previously cleared in an RPM Auction), PJM proposes that the MOPR floor price be equal to the resource’s cost of new entry (“CONE”) “net of Projected PJM Market Revenues for the resource.”⁶⁸ Again, PJM explains that the Projected PJM Market Revenues will be the resource’s “estimated energy and ancillary services markets revenues.”⁶⁹

⁶⁴ June 29 Order, at n.1 (emphasis added).

⁶⁵ ICC Protest, Docket No. EL18-169-000, filed June 28, 2018, at 8-9.

⁶⁶ PJM Initial Submission, Pro forma PJM Tariff, Attachment DD, section 5.14(h)(iv)(A)(2)(a).

⁶⁷ PJM Initial Submission, at 44.

⁶⁸ PJM Initial Submission, Pro forma PJM Tariff, Attachment DD, section 5.14(h)(iv)(A)(1)(a).

⁶⁹ PJM Initial Submission, at 38-39.

PJM’s proposed formula for calculating the MOPR floor price only includes revenue obtained from PJM-operated markets. It does not include permissible out-of-PJM-market revenues, i.e. revenue from the sale of non-electric byproducts or arms-length bilateral contract sales. Rather, PJM’s proposed formula treats permissible out-of-market revenue the same way as targeted “subsidy” revenue—it is not netted off the Avoidable Cost for existing units or the CONE for new units. Consequently, PJM’s proposed formula will result in a MOPR floor price that is too high that could improperly prevent a targeted resource from clearing in PJM’s auction. For this reason, the ICC requests the Commission to direct PJM to correct its formulas for calculating the MOPR floor price.

The ICC also recommends that the Commission not treat payments, assurances, or other such benefits provided by taxpayers, rather than by electricity consumers, as actionable subsidies. Consequently, taxpayer revenue received by a generator through these sources would also be subtracted from the unit’s Avoidable Cost or Cost of New Entry (CONE), as applicable, when calculating the MOPR floor price.

The ICC also recommends that a generator having a bilateral sales contract for capacity with a load serving entity in the PJM region prior to June 29, 2018 not be subject to the MOPR during the term of the contract. PJM does not consider revenue obtained through bilateral contracts as PJM market revenue.⁷⁰ In the context of bilateral contracting, the buyer gains control of the contracted capacity and generally obtains the right to submit the price offer for such capacity into PJM’s auction. A load serving entity that has entered into such a contract will likely offer the capacity into PJM’s auction at \$0 as a price taker so as to be sure that the capacity clears the auction. The generator’s receipt of state policy revenue is not likely to impact the

⁷⁰ PJM Initial Submission, at 22 and 24.

price at which the load serving entity offers its purchased capacity into PJM's auction.

Therefore, for the period of the bilateral contracts, a generator's receipt of state policy revenue should not suppress the offer submitted into PJM's auction. Hence, the ICC recommends that such circumstances support grandfathering the generators that entered into arms-length contracts (i.e., not affiliates) for the period of the contract.

2. PJM's Proposed Default MOPR Floor Prices Should be Capped at Point (a) on the VRR Curve.

For the 2021-2022 BRA, Point (a) on PJM's VRR curve (the vertical intercept point on the VRR curve) was \$482.36/MW-day in UCAP (maximum unforced capacity).⁷¹ PJM proposes that the default MOPR floor price for existing nuclear plants is \$631/MW-day ICAP (installed capacity) for single unit plants and \$593/MW-day ICAP for dual unit plants.⁷² Given PJM's VRR curve with a Point (a) value of \$482.36/MW-day in UCAP, there is no possibility for any nuclear plant to clear PJM's auction with an offer at the default MOPR floor price. The numbers are even more stark for new resources because any new nuclear, coal, hydro, on-shore wind, and off-shore wind all have proposed default MOPR floor prices exceeding the highest possible price on PJM's VRR curve used in its most recent BRA.⁷³ In short, these units have little chance of clearing with an offer equal to or greater than their default MOPR floor prices. Adjusting the figures for UCAP makes the prospect of clearing impossible.

Even if the PJM capacity market was in extreme shortage (three percentage points or more below the targeted reserve margin quantity), PJM's proposal would not clear any existing nuclear, new nuclear, new coal, new hydro, new on-shore wind, or new off-shore wind submitting offers equal to or higher than those values PJM proposes to establish as the default

⁷¹ 2021-2022 RPM Base Residual Auction Planning Parameters, (5/3/2018).

⁷² PJM Initial Submission, at 46.

⁷³ *Id.*, at 41.

MOPR floor price. If Point (a) on the VRR curve is \$482.36/MW-day UCAP, the only new resources that could conceivably clear at offers equal to PJM's proposed default MOPR floor price would be combustion turbine, solar PV, and combined cycle, and even those units could be closed out depending on the ICAP-to-UCAP conversion factor. Said another way, even if the auction clearing price was \$482.36/MW-day, no existing nuclear, new nuclear, new coal, new hydro, new on-shore wind, or new off-shore wind would clear with offers at the default MOPR floor price proposed by PJM.

The Commission must carefully consider the implications of default MOPR floor prices at the levels proposed by PJM.⁷⁴ As a minimal remedial measure, the default MOPR floor price should be capped at the level of Point (a) on the VRR curve for each base residual auction.

D. The Commission Should Mitigate Actual Exercises of Market Power Manipulation Rather than Alleged Price Suppression.

In his dissent, Commissioner Glick raised the issue of market power and asked whether the Commission's proposal might create or allow for additional market power.⁷⁵ Several commenters in this case have also raised this issue.⁷⁶ There is no doubt that PJM's capacity market is rife with market power.⁷⁷ PJM's Independent Market Monitor ("IMM") determined that "the results of the 2021/2022 RPM Base Residual Auction were not competitive as a result of economic withholding by resources that used offers that were consistent with the net CONE

⁷⁴ The ICC supports inclusion of a provision whereby a targeted resource that clears a base residual auction at its MOPR floor offer price or at the cap proposed here will no longer be subject to MOPR regardless of the term of the subsidy. The ability of the unit to clear at that offer price sufficiently demonstrates the market's need for the unit. Relatedly, the ICC does not support requiring the unit to remain in the RCO for any minimum amount of time.

⁷⁵ June 29 Order, Glick Dissent, at 16.

⁷⁶ See, e.g., Initial Brief of The People of the State of Illinois, filed October 2, 2018, at 5; Comments of the PJM Consumer Representatives, filed October 2, 2018, at 25; Initial Argument of the New Jersey Board of Public Utilities, filed October 2, 2018, at 24.

⁷⁷ See 2018 State of the Market Report for PJM, *Monitoring Analytics LLC*, at p. 231 (2018) (explaining that while structural market power exists in the PJM Capacity Market, a competitive outcome can result from the application of market power mitigation rules).

times B offer cap but not consistent with competitive offers based on the correctly calculated offer cap.”⁷⁸ The Net CONE times B offer cap is most problematic in constrained zones with pivotal suppliers controlling a portfolio of resources because the cap is too high.

The Commission has gone to considerable lengths to prevent alleged price suppression, even by resource owners that would not benefit from lower auction clearing prices, in the Commission’s words, “regardless of intent.”⁷⁹ On the pretext of concern for resource adequacy in some unidentified future period, the Commission has found theoretical low-side price impacts to warrant mitigation absent market manipulation and regardless of resource owner intent. On the other hand, with respect to high-side auction price impacts, the Commission has, thus far, shown little concern about real and purposeful exercise of offer strategies under Net CONE times B (potential market power) that has potentially cost consumers billions of dollars.

In this paper hearing process, the Commission has an opportunity to bring more balance to its efforts regarding auction price impacts, starting with the issue of Net CONE times B as the auction offer cap. The ICC urges the Commission to do so.

E. Implementation of the Proposed RPM Revisions Requires a Realistic Implementation Schedule and Transition Mechanisms.

Numerous stakeholders recognized that implementing the current auction design revisions and FRR-RS would require a realistic implementation schedule and transition mechanisms.⁸⁰ There is a consensus that the implementation timeline for an FRR-RS should recognize that states might need to create, adjust or clarify their law to utilize an FRR-RS. New state legislation is likely necessary because owners of resources targeted by an expanded MOPR are

⁷⁸ Monitoring Analytics, Analysis of the 2021/2022 RPM Base Residual Auction: Revised, at 3 (August 24, 2018)

⁷⁹ June 29 Order, at P 155.

⁸⁰ Joint Brief of Consumer Advocates, NGOs, and Industry Stakeholders, at 7; FirstEnergy Solutions, at 13-14; Nuclear Energy Institute, at 7; American Public Power Association, at 2; Exelon, at 22; and Joint Consumer Advocates, at 15.

unlikely to choose a FRR-RS or other measure meant to accommodate them in the absence of a new revenue stream to replace the PJM capacity market revenue that may be lost by application of an expanded MOPR. Typically, the state legislative process is neither simple, nor fast and the legislation necessary to respond to an Expanded MOPR, and to make the FRR-RS or other accommodative measures meaningful, is likely to be particularly complex. Extensive time for consideration at the state level will likely be required. Even in instances where new legislation is not necessary, states will likely need time to design a state program that would suffice to realize the Commission's promise of state resource policy accommodation. Given the short amount of time before the next base residual auction, and the work that needs to be done, it may be necessary for the Commission to postpone the next base residual auction beyond its current scheduled date in August of 2019. As the Maryland PSC states,

[i]f the Commission elects to proceed with an FRR Alternative approach, the Maryland PSC requests that the Commission defer any Base Residual Auction for Delivery Year 2022/2023 until after state legislatures have the opportunity to consider and develop legislation to implement such a mechanism or other approaches for capacity procurement with respect to state-sponsored resources.⁸¹

The ICC agrees that such a postponement may be necessary and urges the Commission to be open to such possibility.

The Commission should also allow for a smooth transition by giving states enough time to work through any difficult implementation issues. For the first auction featuring expanded MOPR implementation, the ICC suggests that the Commission consider using the incremental auctions which are already scheduled for the period between the base residual auction and the beginning of the corresponding delivery year. The ICC suggests that use be made of the Short-Term Resource Procurement Target concept previously in place in PJM's tariff which was

⁸¹ Initial Comments of the Maryland Public Service Commission, at 13.

widely referred to as the “hold-back” provision. That previously effective hold-back mechanism was criticized because it held back a given amount of demand from the base residual auction (for subsequent injection into the incremental auction) without holding back a corresponding amount of supply. Here, the ICC proposes a mechanism whereby the supply from resources targeted for MOPR, but not yet ready to choose RCO due to the absence of an available capacity revenue stream outside PJM’s auction, could be held back from the base residual auction along with a corresponding amount of demand also being held back. At the subsequent incremental auction, the resource would again face the choice of choosing RCO or submitting an offer into the incremental auction at its applicable MOPR floor price, and the choice would have to be made. If the resource chooses to offer at its MOPR floor price, then the supply from that resource, as well as the corresponding amount of demand would be put into the incremental auction. If the resource chooses RCO, then the resource’s capacity supply and the associated commensurate demand would remain carved out. This approach provides states with the necessary time to consider what state-level action is needed to make RCO work, including the passage and implementation of legislation.

If the Commission does not permit states sufficient time to respond to the capacity revenue gap created by the June 29 Order, the Commission’s vision for accommodation of MOPR-targeted resources will not be realized and those units may not be able to remain online. In that instance, application of a MOPR would not be just and reasonable.

F. Economically Efficient Outcomes Require Pricing Carbon in PJM’s Capacity Market.

Eastern Generation LLC requests that the Commission direct PJM to work with stakeholders to develop and file a carbon pricing proposal for PJM markets and require PJM to

implement a “clean MOPR” in time for the next base residual auction.⁸² The ICC generally agrees with Eastern Generation that: (1) the failure to capture the cost of carbon emissions in power prices is a serious market inefficiency and creates significant and unproductive tensions with state policy initiatives;⁸³ and (2) incorporating carbon pricing into the PJM markets is a more durable and sustainable long-term approach that will improve the efficiency of PJM’s capacity and energy markets while accommodating state and federal clean energy policies.⁸⁴

Currently, PJM’s current wholesale market designs do not account for environmental externalities such as the emission of carbon. When production decisions are made absent consideration of such externalities, the resulting market outcomes are not economically efficient. Indeed, by not requiring emitting resources to bear the costs of their pollution, the current PJM construct advantages polluting resources, allowing them to submit offers that are lower than what their true competitive offers would be and to remain in the market when they would otherwise exit. This market failure results in PJM’s energy and capacity markets relying too much on “dirty” and too little on “clean” generation resources.

Incorporating a cost of carbon element into the PJM energy market can help address this market failure by forcing carbon-emitting resources to account for the impact of their emissions. State and federal programs like the Mercury and Air Toxics Standards that address pollutants and other environmental programs have caused generating companies to make substantial investments in equipment necessary to scrub pollutants from their emissions and have caused others to exit the generation business. This is because every transaction made or not made in PJM markets by a coal plant recognizes the reality of the costs it must incur to comply with these

⁸² Initial Brief of Eastern Generation LLC, Docket No. EL16-49-000, *et al.*, filed October 2, 2018, at 2-3.

⁸³ *Id.*, at 5.

⁸⁴ *Id.*, at 2-3.

environmental regulations. Because resources are required to incorporate these compliance costs in their energy market transactions, these kinds of environmental and public health laws have had an impact on prices in PJM wholesale markets and PJM's resource portfolio selection.

The more PJM's auction design addresses negative externality costs such as carbon, the more economically efficient PJM's wholesale markets will be. In short, incorporating a carbon component into the PJM markets will properly compensate resources that provide positive environmental attributes; require polluting resources to internalize the negative externalities associated with their operation and, at the same time, allow states to achieve public health and welfare objectives.

The ICC does not agree with Eastern Generation's recommendation that the Commission implement a clean MOPR, without an FRR-RS, as a bridge to developing and implementing a mechanism to price carbon in the PJM markets.⁸⁵ The Commission recognized in the June 29 Order, that a just and reasonable replacement rate might be crafted by modifying two aspects of the PJM tariff, namely: (1) to expand the MOPR with few or no exceptions; *and* (2) employ a resource-specific FRR alternative option to accommodate state policy decisions and allow resources that receive out-of-market support to remain online.⁸⁶ A MOPR systematically and unduly discriminates against states with public policies compensating generators with beneficial resource attributes not otherwise compensated in PJM markets. Moreover, an application of the MOPR in any instance other than to address buyer-side market power is unjust, unreasonable, detrimental to the efficient operation of PJM markets and will likely result in severe shocks that could undermine state and investor confidence in PJM and PJM's oversight of the grid. Indeed, PJM's application of a MOPR in any circumstance outside of intentional efforts to manipulate

⁸⁵ Initial Brief of Eastern Generation LLC, at 5-6.

⁸⁶ June 29 Order, at P 8 and 157-158.

auction-clearing prices lower is unwarranted and inappropriate.⁸⁷ While incorporating a carbon component into PJM's wholesale markets will likely take some time and a transition mechanism, the punitive aspect of the MOPR requires a more reasoned approach, such as the Commission's requirement that there be a usable accommodative measure or measures prior to implementation of MOPR.

G. The Voluntary Competitive Carve-Out Auction Proposed by the Maryland PSC is Worthy of Examination as an Additional Accommodative Measure.

Although the ICC does not share all of the Maryland Public Service Commission's concerns about the FRR-RS concept,⁸⁸ the ICC supports the Maryland PSC's proposed voluntary Competitive Carve-Out auction⁸⁹ as an additional option and complement to the FRR-RS concept proposed by the Commission. Rather, the ICC believes that, if the Commission decides to impose MOPR, it must ensure that a workable and usable accommodative measure or measures is/are available. The ICC believes that an FRR-RS program can work if properly designed on the federal end and effectively complemented on the state end. The ICC does not support the Maryland PSC's suggestion that the Competitive Carve-Out auction proposal be adopted as the only available accommodative measure or "in lieu of"⁹⁰ an FRR-RS approach. Rather, with respect to accommodation, the ICC sees value in optionality. In this case, a resource labeled by PJM as having an actionable subsidy might choose to participate in the competitive carve-out auction proposed by the Maryland PSC or choose one of the three options proposed by PJM: (1) renounce the so-called subsidy; (2) choose the FRR-RS option; or (3)

⁸⁷ See, e.g., Motion to Dismiss and Protest of the Illinois Commerce Commission, filed May 7, 2018, *PJM Interconnection, L.L.C.*, Docket Nos. ER18-1314-000, ER18-1314-001, at 35-38.

⁸⁸ Initial Comments of the Maryland Public Service Commission, at 6-8.

⁸⁹ *Id.*, Appendix A.

⁹⁰ *Id.*, at 3.

submit an offer at or above the applicable MOPR floor price.⁹¹ In that light of optionality, the ICC supports the Maryland PSC’s request that the Commission “give direction to PJM to develop the competitive carve-out approach as proposed by Maryland, vet its design elements with PJM stakeholders, and incorporate the competitive carve-out option in both its Tariff and its market and reliability optimization processes.”⁹² The relevant word in that quote for the ICC is “option.”

H. Continued Attempts to Fix PJM’s Flawed Capacity Construct are Futile and the Commission Should, Instead, Increase its Focus on Improving Price Formation in PJM’s Energy & Ancillary Services Markets.

As noted by American Municipal Power, Inc. and the Public Power Association of New Jersey, applying an expanded MOPR to existing resources and then adding a new resource-specific FRR alternative, is a sweeping and fundamental change whose magnitude eclipses any of the prior major rule changes to the RPM.⁹³ Indeed, the efforts put forth by the Commission in this proceeding serve to reaffirm the ICC’s belief that PJM’s capacity market is inherently flawed and unnecessarily complex. The IMM and other parties argue the capacity market is essential to incent the entry and exit of resources necessary for reliability.⁹⁴ The ICC supports competitive electricity markets and system reliability, but PJM’s current capacity construct is not

⁹¹ PJM also asserts that states have two additional options: “full re-regulation or PJM’s existing FRR rules.” (PJM Initial Submission, at 12) However, PJM’s existing FRR rules are not usable in restructured states with retail competition because all of the load in the utility’s service area must be included in the FRR. Also, full re-regulation of all generation in the state would be a disproportionate and unreasonable action when the state’s policy goal is merely to have the value of specific environmental attributes (renewability and zero carbon) recognized so as to promote the entry of economic clean resources and prevent uneconomic and premature retirements of existing clean resources. Consequently, these two options suggested by PJM are not reasonable options.

⁹² Initial Comments of the Maryland Public Service Commission, at 13 (emphasis added). The ICC supports development of the competitive carve-out auction in time to be implemented prior to PJM’s next base residual auction.

⁹³ Evidence and Arguments of American Municipal Power, Inc. and the Public Power Association of New Jersey, Docket Nos. EL16-49-000, *et al.*, filed October 2, 2018, at 4.

⁹⁴ Brief of the Independent Market Monitor for PJM (“IMM”), filed on October 2, 2018, at 10.

a competitive market in any meaningful sense.⁹⁵ Rather, it is a complex, administratively determined mechanism for pricing and procuring capacity that has been subject to almost constant rule changes. Since its inception in 2007, RPM has been the subject of nearly thirty significant revisions before the Commission. Moreover, the construct contains numerous administratively determined non-market features such as its Variable Resource Requirement curve, price caps, a MOPR, cost of new entry fluctuations, and significant performance requirements/penalties. Arguably, all of these administrative features serve a purpose, but they also underscore the reality that RPM is overly complex, a market in name only, and will continue to be subject to revision in the future before the PJM stakeholder process and the Commission.

Rather than spending even more time and effort attempting to adjust PJM's flawed capacity construct, the Commission, PJM and all of PJM's stakeholders would be better served by focusing on improving the price formation in PJM's energy and ancillary services markets as a way to provide necessary revenues and incentives to needed resources while respecting consumer interests. The ideas and initiatives presented in recent PJM papers could be useful for achieving resource adequacy, resilience and reliability within the PJM market and ease the reliance on an inherently flawed capacity construct.⁹⁶ Revising the demand curve used in shortage pricing and co-optimizing reserve products with energy are several initiatives that could enhance market price formation and make the PJM system more resilient through efficient commitment and pricing. Accordingly, the Commission should consider encouraging or requiring PJM to expand

⁹⁵ Monitoring Analytics, the independent market monitor for the PJM region found PJM's local and aggregate capacity market structure, as well as market performance and participant behavior to be, "not competitive." *2018 Quarterly State of the Market Report for PJM*, (August 9, 2018), at 10.

http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2018/2018q2-som-pjm-sec5.pdf

⁹⁶ The ICC notes PJM's recent papers, particularly *Energy Price Formation and Valuing Flexibility* where PJM discusses revising the demand curve used in shortage pricing, its reserve markets and the manner in which PJM co-optimizes reserve products with energy. <http://www.pjm.com/~media/library/reports-notice/special-reports/20170615-energy-market-price-formation.ashx>

and accelerate the development of ideas and initiatives regarding energy market price formation, reserve market improvements and shortage pricing revisions. Such initiatives, over time, could work to reduce generation resources' reliance on capacity revenues, thus reducing the significance and impact of flaws in that market. PJM's energy, ancillary services, and capacity markets should *work together* to efficiently provide revenue sufficient to induce or retain the level of resources necessary to maintain resource adequacy, resilience and reliability within PJM.

III. CONCLUSION

WHEREAS, the ICC respectfully requests that the Commission give due consideration to these reply comments and urges the Commission to adopt the recommendations contained herein. The ICC further requests any and all other appropriate relief.

Respectfully submitted,

/s/Christine F. Ericson

Robert Funk
Christine F. Ericson
Special Assistant Attorneys General
Illinois Commerce Commission
Office of the General Counsel
160 N. LaSalle St., Suite C-800
Chicago, IL 60601
(312) 793-2877
Robert.Funk@Illinois.gov
Christine.Ericson@Illinois.gov

ILLINOIS COMMERCE COMMISSION

Dated: November 2, 2018

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

Calpine Corporation, Dynegy Inc., Eastern) Docket Nos. EL16-49-000
Generation, LLC, Homer City Generation,
L.P., NRG Power Marketing LLC, GenOn
Energy Management, LLC, Carroll County
Energy LLC, C.P., Crane LLC, Essential
Power, LLC, Essential Power OPP, LLC,
Essential Power Rock Springs, LLC,
Lakewood Cogeneration, L.P., GDF SUEZ
Energy Marketing NA, Inc., Oregon Clean
Energy, LLC and Panda Power Generation
Infrastructure Fund, LLC

v.

PJM Interconnection, L.L.C

PJM Interconnection, L.L.C.)	ER18-1314-000
)	ER18-1314-001
PJM Interconnection, L.L.C.)	EL18-178-000

VERIFICATION

STATE OF Illinois)
COUNTY OF Cook)

I, Torsten Clausen, being duly sworn upon oath, attest that I am the Director of the Policy Division, in the Public Utilities Bureau of the Illinois Commerce Commission, and that I have authority to verify the foregoing document. I have read the foregoing document and I affirm

that the facts, representations, and statements set forth therein are true and correct to the best of my knowledge, information, and belief.



Torsten Clausen
Director, Policy Division
Public Utilities Bureau
Illinois Commerce Commission

Subscribed and sworn before me
This 7th day of November, 2018


Notary Public

My commission expires on 2/1/2021

CERTIFICATE OF SERVICE

I hereby certify that I caused copies of the foregoing document of the Illinois Commerce Commission to be served this day upon each person designated on the official service list compiled by the Secretary in this proceeding, a copy of which is attached, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure.

Dated at Chicago, Illinois, this 2nd day of November, 2018.

/s/ Christine F. Ericson

Christine F. Ericson
Special Assistant Attorney General
Illinois Commerce Commission
Office of the General Counsel
160 N. LaSalle Street, Suite C-800
Chicago, IL 60601
(312) 814-3706
Christine.ericson@illinois.gov