

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

Calpine Corporation, et al.,	)	Docket Nos. EL 16-49-000
	)	
v.	)	
	)	
PJM Interconnection, L.L.C.	)	
	)	ER 18-1314-000
PJM Interconnection, L.L.C.	)	ER 18-1314-001
	)	
PJM Interconnection, L.L.C	)	EL 18-178-000
	)	(Consolidated)

**INITIAL BRIEF OF  
THE PEOPLE OF THE STATE OF ILLINOIS**

The People of the State of Illinois, by and through Lisa Madigan, Attorney General of the State of Illinois (“the People” or “the Illinois AG”), hereby file this Initial Brief in response to the Commission’s June 29, 2018 Order Rejecting Proposed Tariff Revisions, Granting in Part and Denying in Part Complaint, and Instituting Proceeding Under Section 206 of the Federal Power Act (“Order”).<sup>1</sup> The People filed a Request for Rehearing on July 31, 2018, and the arguments in this Initial Brief are not a waiver or withdrawal of any position taken in the Request for Rehearing.

**I. BACKGROUND & INTRODUCTION**

The Commission opened this proceeding after concluding that out-of-market payments to generators have grown from supporting relatively small renewable resources to supporting “thousands of megawatts (MWs) of resources ranging from small solar and wind facilities to large nuclear plants.”<sup>2</sup> The Commission concluded that out-of-market payments or subsidies

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<sup>1</sup> *Calpine Corp. et al. v. PJM Interconnection, L.L.C.* 163 FERC ¶ 61,236 (Jun. 28, 2018) (“Order”).

<sup>2</sup> *Id.* at P 1.

“allow supported resources to reduce the price of their offers into capacity auctions below the price they otherwise would offer absent the payments, causing lower auction clearing prices.”<sup>3</sup>

The Commission cited an anticipated vicious cycle of subsidies leading to lower capacity revenues, leading to increased pressure for yet more subsidies, ultimately distorting the market.<sup>4</sup>

While the Commission found the tariff amendments filed by PJM Interconnection, LLC, in Docket No. ER18-1314 under section 205 of the Federal Power Act (“FPA”)<sup>5</sup> and the complaint of Calpine Corporation, et al., in Docket No. EL16-49 under section 206 of the FPA<sup>6</sup> support its conclusion that out-of-market payments are affecting federal wholesale markets, it rejected the remedies proposed in those complaints.<sup>7</sup> The Commission opened this proceeding under section 206 of the FPA to develop a remedy to address the effect of out-of-market payments and to revise PJM’s Open Access Transmission Tariff (“Tariff” or “PJM OATT”) to develop an effective remedy.<sup>8</sup> Specifically, the Commission described an approach that (1) would expand the Minimum Offer Price Rule (MOPR) in PJM’s Tariff to apply to both new and existing resources of all fuel types, subject to “few or no exceptions,” and (2) would establish an option for resources receiving out-of-market payments “to be removed from the PJM capacity market, along with a commensurate amount of load.”<sup>9</sup>

The People of the State of Illinois, through Attorney General Lisa Madigan, submit this Initial Brief and the testimony of Robert McCullough to respond to the Commission’s questions in its Order. The State of Illinois adopted the Zero Emission Credit (“ZEC”) system in December, 2016, with payments starting in the June 1, 2017-May 31, 2018 delivery year for a

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<sup>3</sup> *Id.* at PP 2, 5.

<sup>4</sup> *Id.* at P 2

<sup>5</sup> 16 U.S.C. § 824d.

<sup>6</sup> 16 U.S.C. § 824e.

<sup>7</sup> Order at PP 7, 32.

<sup>8</sup> *Id.*

<sup>9</sup> *Id.* at P 8.

period of 10 years.<sup>10</sup> The clearing prices in the ComEd zone in the PJM capacity auction mechanism, the Base Residual Auction (“BRA”) of the Reliability Pricing Model (“RPM”), however, have not been depressed relative to the prices in other PJM areas for the delivery years 2018-2022. In fact, the capacity prices in the ComEd Locational Delivery Area (“LDA” or “zone”) are higher than most other PJM zones, notwithstanding the authorization of ZEC payments in December 2016, as shown in the following table:

	Capacity Performance Resources		Base Capacity Resources		Difference between ComEd zone and rest-of-RTO clearing prices in dollars: CP Resources only	Difference between ComEd zone and RTO clearing prices in percentages: CP Resources only
	ComEd LDA	Rest of RTO	ComEd LDA	Rest of RTO		
2015/2016	N/A	N/A	\$136.00	\$136.00	0	
2016/2017 <sup>11</sup>	\$134.00	\$134.00	\$59.37	\$59.37	0	
2017/2018 <sup>12</sup>	\$151.50	\$151.50	\$120.00	\$120.00	0	
2018/2019	\$215.00	\$164.77	\$200.21	\$149.98	\$ 50.23	30.5%
2019/2020	\$202.77	\$100.00	\$182.77	\$ 80.00	\$102.77	102.8%
2020/2021	\$188.12	\$76.53	NA	NA	\$111.59	145.8%
2021/2022	\$195.55	\$140.00	NA	NA	\$ 55.55	39.3%

It is apparent that the payment of ZECs in Illinois, which began June 1, 2017, has not depressed capacity market prices in the ComEd zone.

In its Order, the Commission concluded that the current MOPR in PJM is not sufficient to address out-of-market payments and invited parties to propose changes to PJM’s Tariff to allow

<sup>10</sup> 20 ILCS 3855/1-75(d-5)(1).

<sup>11</sup> Following the CP Transition Incremental Auction held in August 2015.

<sup>12</sup> Following the CP Transition Incremental Auction held in September 2015.

the MOPR to address such out-of-market payments.<sup>13</sup> In addition, the Commission suggested an approach that would remove state-supported resources and a commensurate quantity of associated load from the PJM capacity market altogether.<sup>14</sup> The treatment of capacity market seller resources and load could be similar to PJM's current Fixed Resource Requirement, or FRR, but the Commission invited the parties to recommend an FRR Alternative that would only apply to resources receiving out-of-market payments.<sup>15</sup>

In response to the Order, the People recommend that (1) any MOPR requirement be coupled with the right of state public utility commissions, state attorneys general, and state consumer advocates to receive the bidding data in any auction in which resources subject to the new MOPR participate to assure transparency and to guard against the exercise of market power; (2) the Commission include a price cap on revenues a subsidized resource can obtain under the FRR Alternative structure to assure that the resulting wholesale rate is just and reasonable; and (3) the Commission delay implementation of the new PJM Tariff reflective of any changes resulting from this proceeding until the state has certified that it has developed a state-level FRR Alternative, and in any event no earlier than the 2023/2024 delivery year auction in order to give the States sufficient time to adjust state-level policies in response to the new MOPR and FRR Alternative.

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<sup>13</sup> Order at P 157.

<sup>14</sup> *Id.* at P 8.

<sup>15</sup> *Id.* at P 8; n. 10.

## II. THE COMMISSION'S REMEDY IN THIS PROCEEDING MUST ACCOUNT FOR MARKET POWER TO ASSURE JUST AND REASONABLE CAPACITY PRICES.

In his analysis of the 2021/2022 Base Residual Auction, PJM's Independent Market Monitor ("IMM") stated:

The market design for capacity leads, almost unavoidably, to structural market power in the capacity market. The capacity market is unlikely ever to approach a competitive market structure in the absence of a substantial and unlikely structural change that results in much greater diversity of ownership. **Market power is and will remain endemic to the structure of the PJM Capacity Market.** Nonetheless a competitive outcome can be assured by appropriate market power mitigation rules.<sup>16</sup>

He further concluded 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 times B offer cap but not consistent with competitive offers based on the correctly calculated offer cap."<sup>17</sup> The IMM's Analysis and PJM's scenario analyses of PJM's most recent capacity auction show erratic and counter-intuitive results in the ComEd zone, such as prices increasing when more resource imports are available,<sup>18</sup> and prices

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<sup>16</sup> Monitoring Analytics, Analysis of the 2021/2022 RPM Base Residual Auction: Revised at 2 (August 24, 2018) (emphasis added), [http://www.monitoringanalytics.com/reports/Reports/2018/IMM\\_Analysis\\_of\\_the\\_20212022\\_RPM\\_BRA\\_Revised\\_20180824.pdf](http://www.monitoringanalytics.com/reports/Reports/2018/IMM_Analysis_of_the_20212022_RPM_BRA_Revised_20180824.pdf)

<sup>17</sup> *Id.* at 3.

<sup>18</sup> *Id.* at 61 ("The ComEd CETL for the 2021/2022 RPM Base Residual Auction was 1,510.0 MW higher than the 2020/2021 ComEd CETL level, an increase of 37.2 percent. Table 26 shows the results if the 2020/2021 CETL value for ComEd had been used in the 2021/2022 RPM Base Residual Auction and everything else had remained the same. The results of the scenario show that the ComEd price for the 2021/2022 RPM Base Residual Auction was higher than it would have been if the CETL had remained at the lower 2020/2021 CETL value. This counter intuitive price impact was a result of the interaction of the supply offers and the demand curve."); *see also* Affidavit of Robert McCullough, attached as Exhibit 1 to this Initial Brief at PP 19-20 ("McCullough Aff.").

decreasing when fewer resources are available.<sup>19</sup> These results indicate that PJM’s market design is not adequately addressing market realities, particularly in the ComEd zone.

The recent capacity clearing prices in the ComEd zone, including those established after the enactment of the ZEC subsidy law in December, 2016, also indicate market power. The 2021/2022 ComEd zone price was \$195.55, which is substantially higher than the prices in the rest-of-RTO region, higher than the weighted average BRA clearing price of \$149.19<sup>20</sup>, and higher than 12 of the 15 capacity zones (local delivery zones, including the “rest-of-RTO”) despite substantial excess capacity.<sup>21</sup> The auction results from the prior delivery year, 2020/2021, which occurred in May 2017—after the ZEC subsidies had been approved for the 2021/2022 delivery year—showed a similar pattern, with a clearing price of \$188.12 compared to an RTO weighted average clearing price of \$100.46.<sup>22</sup> While the bidding data for the ComEd zone may indicate whether there were substantial zero bids or a change in the number of zero or low bids after the ZECs were approved, that information is not currently available or regularly released by PJM.<sup>23</sup>

While the 2021/2022 capacity price in the ComEd zone is among the highest in PJM, and increased from last year, the clearing price should have fallen in 2021-2022 for at least three reasons: passage and implementation of the ZEC law, which includes up to \$170 million for the

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<sup>19</sup> Scenario Analysis for Base Residual Auction, 2021/2022, *compare* Scenarios Base, 2 and 4 for the ComEd zone. <https://pjm.com/markets-and-operations/rpm.aspx>; McCullough Aff. at P 28.

<sup>20</sup> To calculate this figure, we weighted each LDA’s clearing price by their share of the total MWs of capacity cleared in the 2021/2022 BRA and added the resulting weighted prices to arrive at a total weighted average clearing price for the BRA.

<sup>21</sup> 2021/2022 Results of the Base Residual Auction, at 15, Table 4 showed 27,930.4 megawatts offered and 22,358.1 megawatts cleared, indicating 24.9% more available bid capacity than was needed. <https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-base-residual-auction-report.ashx>.

<sup>22</sup> *Id.* at 4.

<sup>23</sup> The People have asked PJM for that information for the ComEd zone in discovery, and are working with PJM and other parties for access to bid information. It is noteworthy that while PJM does not ordinarily release bidding data, the Midcontinent Independent System Operator (“MISO”) releases masked bid data 30 days after its capacity auction. MISO, Market Reports - Cleared Bids, *available at* <https://www.misoenergy.org/markets-and-operations/market-reports/#nt=%2FMarketReportType%3ABids&t=10&p=0&s=MarketReportPublished&sd=desc>.

Quad Cities nuclear generation plant starting June, 2017;<sup>24</sup> the passage of the new tax law that substantially reduced generators' federal tax burden;<sup>25</sup> and the expansion of transmission capacity into the ComEd zone.<sup>26</sup> Instead, the price increased from the prior auction and remained significantly higher than other PJM capacity zones. Notwithstanding the presence of a subsidized plant, the relatively high ComEd clearing price is consistent with the fact that the subsidized company (Exelon Generation) owns a total of 10,604 MW out of the 27,930.4 MW were offered in the 2021/2022 auction.<sup>27</sup> With 40% of the generation owned by a single entity and a resulting HHI of 2,347, the ComEd zone is highly concentrated.<sup>28</sup>

Overall, it is far from clear that the bidding for the subsidized Quad Cities capacity determined or even affected the market clearing price in the ComEd zone, or that the clearing price was suppressed as a result of the Illinois ZEC subsidy.<sup>29</sup> While Quad Cities did clear in 2021-2022 after two years of not clearing, the Dresden nuclear plant, which previously cleared and which is the same size as Quad Cities,<sup>30</sup> did not clear in 2021-2022.<sup>31</sup> While each year either

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<sup>24</sup> Illinois Power Agency, Zero Emission Standard, Final Payment Calculation Notice of the Illinois Power Agency, Delivery Year: June 1, 2017 through May 31, 2018 (February 8, 2018), *available at* <https://www2.illinois.gov/sites/ipa/Documents/2017ProcurementPlan/Comments/IPA-Payment-Calculation-Notice-Delivery-Year-2017-2018.PDF>.

<sup>25</sup> *See generally* Exelon Corporation, Exelon Reports Fourth Quarter and Full Year 2017 Results and Initiates 2018 Financial Outlook, *available at* <http://www.exeloncorp.com/newsroom/exelon-reports-fourth-quarter-and-full-year-2017-results-and-initiates-2018-financial-outlook>; EY, Tax Insights for business leaders: US Tax Cuts and Jobs Act and its impact on the energy sector (Jan. 5, 2018) (explaining that for non-regulated entities, such as Exelon's power generation entities, the federal corporate income tax rate reduction is "an income statement benefit") *available at* <https://taxinsights.ey.com/archive/archive-news/us-tax-cuts-and-jobs-act-and-its-impact-on-the-energy-sector.aspx>.

<sup>26</sup> The import limit increased by 1,510.0 MW, or 37.2%, in the 2021/2022 auction. This increase in available capacity resources would ordinarily be expected to reduce the clearing price. Instead the price increased. *See* 2021/2022 Results of the Base Residual Auction, *supra* note 21.

<sup>27</sup> 2021/2022 Results of the Base Residual Auction, *supra* note 21 at 15, Table 4.

<sup>28</sup> McCullough Aff. at P 16.

<sup>29</sup> *Id.* at PP 14, 25-26.

<sup>30</sup> The ICAP for Dresden and Quad Cities is 1,787 MW and 1,819 MW respectively. Monitoring Analytics, 2018 Quarterly State of the Market Report for PJM: January through June, Table 7-15 (page 323).

<sup>31</sup> Portions or all of the Byron nuclear plant cleared in the last three capacity auctions, at prices that ranged from \$195.55 to \$202.00. *See* Exelon Corporation, Exelon Announces Outcome of 2021/2022 PJM Capacity Auction, *available at* <http://www.exeloncorp.com/newsroom/exelon-announces-outcome-of-2021-2022-pjm-capacity-auction>; Exelon Corporation, PJM Auction Results Release 2017, *available at* <http://www.exeloncorp.com/newsroom/pjm-auction-results-release-2017>, and *Exelon Corporation*, PJM Auction

the Dresden plant (1,845 MW) or the Quad Cities plant (1,819)<sup>32</sup> did not clear and only part of the Byron plant cleared, there are insufficient non-nuclear resources for the ComEd zone to clear without some Exelon nuclear units clearing. Exelon is a pivotal supplier with substantial market power to set the ComEd zone capacity price. The high clearing prices evident in the ComEd zone are consistent with an economic withholding strategy that aims to maximize revenues for a portfolio through strategic bidding of individual units—they do show depressed prices due to subsidies.<sup>33</sup>

PJM has rules governing the capacity auction. However, as the IMM stated: “the market power rules are not perfect and, as a result, competitive outcomes require continued improvement of the rules and ongoing monitoring of market participant behavior and market performance. Issues with the definition of the offer caps<sup>34</sup> in the 2021/2022 BRA resulted in noncompetitive offers and a noncompetitive outcome.”<sup>35</sup> While various scenario analyses indicated that the clearing prices exceeded a competitive level, based on the offer cap alone, the IMM concluded that “the noncompetitive offers resulted in a **15.3 percent increase** in RPM revenues for the 2021/2022 RPM Base Residual Auction compared to what RPM revenues would have been had the noncompetitive offers been capped at net ACR.”<sup>36</sup>

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Result 2016, *available at* <http://www.exeloncorp.com/newsroom/pjm-auction-results-2016> . All of Exelon’s nuclear plants in Illinois cleared in the 2018/2019 auction, which was the first Capacity Performance auction, at \$215.00 mw-day. U.S. Securities and Exchange Commission, <https://www.sec.gov/Archives/edgar/data/1109357/000119312515316730/d98826d8k.htm>.

<sup>32</sup> Monitoring Analytics, 2018 Quarterly State of the Market Report for PJM: January through June, Table 7-15 (page 323).

<sup>33</sup> McCullough Aff. at PP 14, 25-26.

<sup>34</sup> The IMM Analysis explained that the BRA default market seller offer caps should be drastically lower (net CONE \* B/6) and that the offer cap allows for resources to bid a noncompetitive bid between net ACR and net CONE \* B. The resulting cap for the ComEd zone in the 2021/2022 auction was \$254.40, which the IMM concluded was above a competitive level. Monitoring Analytics, Analysis of the 2021/2022 RPM Base Residual Auction: Revised, at 19-20 and Table 13 (Aug. 24, 2018), *available at* [http://www.monitoringanalytics.com/reports/Reports/2018/IMM\\_Analysis\\_of\\_the\\_20212022\\_RPM\\_BRA\\_Revised\\_20180824.pdf](http://www.monitoringanalytics.com/reports/Reports/2018/IMM_Analysis_of_the_20212022_RPM_BRA_Revised_20180824.pdf)

<sup>35</sup> *Id.* at 2.

<sup>36</sup> *Id.* at 20 (emphasis added), referencing Scenario 21 at page 86-88.



Under current capacity auction rules, in the ComEd zone Exelon has no incentive to adopt a bidding strategy that will result in a clearing price that is lower than a competitive price due to the thousands of megawatts of other Exelon capacity that will benefit from a higher, competitive clearing price. While in theory Exelon may have an incentive to submit a low bid for its subsidized plant to insure it will clear, the clearing price is based on the bid of the marginal unit. Exelon is the pivotal supplier in the ComEd zone, and submits bids for more than 10,000 MW of capacity. The bids for Exelon's entire portfolio affect the clearing price. The bid for the subsidized plant does not set the clearing price and is unlikely to result in a depressed clearing price that would reduce market participants' overall capacity revenues.<sup>37</sup>

The People request that in assessing both the MOPR requirement and FRR-Alternative proposals, the Commission consider the effect of subsidies and adopt rules to address them in light of all of the circumstances affecting capacity bidding and prices, including whether a subsidized unit is part of an organization (1) that does not have an interest in reducing capacity prices due to its ownership of other resources that receive capacity revenues, and (2) that can exercise market power in the capacity market. The PJM offer cap that applies to all capacity offers should continue to apply to subsidized resources subject to the MOPR and to the FRR Alternative to the extent that the MOPR is lower than the BRA offer cap.

### **III. A MOPR FOR RESOURCES THAT RECEIVE OUT-OF-MARKET PAYMENTS MUST BE DESIGNED TO AVOID THE EFFECTS OF MARKET POWER WHILE ADDRESSING THE EFFECT OF SUBSIDIES.**

While the Commission recognized that in general “a competitive offer for existing resources may be low,” it also noted that some plants “need to incur significant maintenance or refurbishment expenses to remain operational” to the extent that low bids do not reflect their

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<sup>37</sup>McCullough Aff. at PP 14, 25

actual costs.<sup>38</sup> The Commission drew a distinction between “a resource that offers low as a result of competition in the market and one that offers low because a state subsidy gives it the luxury of doing so.”<sup>39</sup> Resources which may not be able to clear the market if they bid capacity at their actual cost may be expected to retire based on their high costs, allowing other, lower cost resources to provide needed capacity.<sup>40</sup> Further, the Commission concluded that the continued operation of generators that would close in the absence of state or out-of-market subsidies has “reached a level sufficient to significantly impact the capacity market clearing prices and the integrity of the resulting price signals on which investors and consumers rely to guide the orderly entry and exit of capacity resources.”<sup>41</sup>

The Commission’s first approach to this problem is to determine a “replacement rate” for the capacity bids for resources that receive out-of-market subsidies.<sup>42</sup> While referencing PJM’s “minimum offer price rule” or “MOPR” as a framework for determining the replacement rate, the Commission acknowledged that the MOPR was originally designed to address buyer-side or monopsony power.<sup>43</sup> Today the Commission goal is to obtain a competitive capacity price without regard to the motive underlying the subsidy (*i.e.* to benefit load or to benefit generators).<sup>44</sup> PJM’s existing MOPR rules and definitions that were designed to address monopsony power are not the best model to achieve the Commission’s goal in this proceeding.

Currently PJM defines the MOPR as a “provision that imposes a minimum offer screening process to determine whether an offer from a *new* resource is competitive and prevents market participants from submitting uncompetitive, low new entry offers in RPM Auctions to

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<sup>38</sup> Order at P 153.

<sup>39</sup> *Id.*

<sup>40</sup> *Id.* at P 154.

<sup>41</sup> *Id.* at P 156.

<sup>42</sup> *Id.* at P 158.

<sup>43</sup> *Id.*

<sup>44</sup> *Id.*

depress auction clearing prices artificially.”<sup>45</sup> PJM tariffs define the minimum offer price as the cost of new entry, or “CONE” associated with a new natural gas combustion turbine or combined cycle plant as “asset-class estimates of competitive, cost-based nominal levelized Cost of New Entry, net of energy and ancillary service revenues,” and include a table showing the cost per megawatt-year for various CONE areas.<sup>46</sup> PJM does not currently have a methodology for determining the minimum price for existing units, such as existing nuclear power generators, nor specific standards for determining a minimum cost for particular types of nuclear plants, such as single unit, dual unit, pressurized water, or boiling water.<sup>47</sup> Yet those are the plants for which state subsidies are being enacted.

In order to apply the MOPR to existing resources receiving out-of-market subsidies, the Commission would have to approve a tariff establishing an objective minimum price for existing units. The PJM tariff currently allows unit-specific analyses for units that are subject to the MOPR and that can demonstrate that their Sell Offer “is consistent with the competitive, cost-based, fixed, net cost of new entry were the resource to rely solely on revenues from PJM-administered markets.”<sup>48</sup> The tariff further defines the information that the resource must submit to the IMM to justify a unit-specific exception to the MOPR requirement.<sup>49</sup>

The Commission should direct PJM to determine a MOPR for nuclear and renewable resources, or any other technology that receives subsidies, based on objective, public information, much like the current MOPR is based on costs for natural gas plants. For nuclear

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<sup>45</sup> PJM Interconnection, L.L.C., PJM Glossary, *available at* [https://www.pjm.com/Glossary.aspx#index\\_M](https://www.pjm.com/Glossary.aspx#index_M) (emphasis added) (last visited September 24, 2018).

<sup>46</sup> PJM OATT, Attach. DD, §5.14(h)(1).

<sup>47</sup> PJM’s Tariff currently provides that “the Net Asset Class Cost of New Entry shall be zero for: (i) Sell Offers based on nuclear, coal or Integrated Gasification Combined Cycle facilities; or (ii) Sell Offers based on hydroelectric, wind or solar facilities. *Id.* defines the “cost of new entry,” or “CONE” as “averaged revenue required (\$/MW-year) to build a reference combustion turbine in a specific area of PJM.”

<sup>48</sup> PJM OATT, Attach. DD, §5.14(h)(5).

<sup>49</sup> *Id.* at §5.14(h)(5)(ii)-(iv).

power plants, the IMM has used Nuclear Energy Information (NEI) data in the 2018 Quarterly State of the Market Report for PJM to analyze net revenues earned by various technologies.<sup>50</sup> In order for the benchmark to be reliable, the Commission can require that PJM assure that costs incorporated by NEI be supported by public information. While actual costs for a particular plant may be more or less than the benchmark costs, using a benchmark cost for purposes of a MOPR will incorporate an objective, market measure into the MOPR calculation, and preserve a competitive effect.

The current MOPR also allows the IMM to determine unit-specific ACRs, defined as variable costs that need to be covered to enable the particular resource to continue operations.<sup>51</sup> At its most fundamental, an avoidable cost is a cost that can be eliminated by not engaging in or no longer performing an activity, such as offering to be a capacity resource.<sup>52</sup> To the extent that the Commission allows PJM to set a MOPR price floor based on unit-specific data, it should require that the unit-specific data come exclusively from FERC Form 1 reports to impose consistency among submissions and enable transparency. While PJM's tariff defines revenues as Projected PJM Market Revenues,<sup>53</sup> when the specific unit is subsidized, the net ACR calculation should include all revenues, including PJM market revenues and out-of-market revenues or state subsidies, to determine the revenues still needed to cover costs and allow the unit to continue to operate as a capacity resource.<sup>54</sup>

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<sup>50</sup> Monitoring Analytics, 2018 Quarterly State of the Market Report for PJM: January through June, Section 7 Net Revenue, page 320-326 (Revised page 324).

<sup>51</sup> Monitoring Analytics, RPM Avoidable Cost Rate Development at 3 (2006) *available at* <http://www.monitoringanalytics.com/reports/Presentations/2006/20061108-rpm-workshop-avoidable-cost-rate-dev.pdf>.

<sup>52</sup> *Id.*

<sup>53</sup> PJM OATT, Attach. DD, §§6.7(d)(iii) and 6.8(d).

<sup>54</sup> McCullough Aff. at P53.

The goal of PJM’s competitive markets, including its capacity market, is to reliably obtain electricity at the least cost through market pressure. As the Commission stated in the CASPR Order:

“[W]e are guided by the first principles of capacity markets. A capacity market should facilitate robust competition for capacity supply obligations, provide price signals that guide the orderly entry and exit of capacity resources, result in the selection of the least-cost set of resources that possess the attributes sought by the markets, provide price transparency, shift risk as appropriate from customers to private capital, and mitigate market power. Ultimately, the purpose of basing capacity market constructs on these principles is to produce a level of investor confidence that is sufficient to ensure resource adequacy at just and reasonable rates.”<sup>55</sup>

To the extent that subsidized resources offer into the capacity market at a level that matches the benchmarks for the particular technology, net of energy and ancillary services resources,<sup>56</sup> they will have the opportunity to clear the market if their actual avoidable costs are competitive with other generators. If their net avoidable costs are not competitive, and the market can reliably be served without their capacity, the market will clear at a lower price without the subsidized units, providing the correct entry and exit signals and moving the market to lower cost resources.

However, the Commission must be mindful of the effect a high MOPR sell offer may have on a market segment, such as the ComEd zone, where one generator has substantial market power. The imposition of a MOPR floor may have the effect of raising the clearing price to uncompetitive and unjust and unreasonable levels if the owner of the subsidized unit bids a portfolio of capacity resources that can push prices higher for its other, non-subsidized units.<sup>57</sup>

To address the risks associated with subsidized resources, the risk of downward price pressure

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<sup>55</sup> *ISO New England Inc.*, 162 FERC ¶ 61,205, P21 (2018) (CASPR Order).

<sup>56</sup> See PJM OATT, Attach. DD, §5.14(h)(1).

<sup>57</sup> *McCullough Aff.* at PP 14, 25-26.

from subsidies can be addressed through the properly referenced MOPR benchmark and an accurately and transparently calculated unit-specific cost. However, at the same time, the Commission should require release of bidding data to the IMM, requesting state commissions, state attorneys general, and state utility consumer representatives to provide transparency and assure that the exercise of market power and unjust and unreasonably high prices are not an unintended consequence of the MOPR requirement.

#### **IV. THE FRR ALTERNATIVE SHOULD UTILIZE PRICE CAPS AND BE DESIGNED TO ASSURE JUST AND REASONABLE REPLACEMENT CAPACITY PRICES.**

In addition to developing a MOPR to address capacity resources receiving out-of-market payments, the Commission proposed a “resource-specific FRR Alternative option” as an alternative to applying a minimum price to a subsidized resource.<sup>58</sup> Today, PJM’s FRR is used by about 10% of its load, primarily by vertically integrated utilities that can control both their load and their supply. Application of an FRR model to states with competitive markets will require state specific designs and Commission oversight to assure that the resulting capacity charges are just and reasonable and are consistent with the goal of obtaining least cost service.<sup>59</sup> The Federal Power Act grants the Commission authority to regulate capacity markets as part of its duty to oversee the wholesale electricity markets.<sup>60</sup> The Commission’s exclusive authority extends to the price of capacity, which is undisputedly a FERC jurisdictional rate.<sup>61</sup>

The Commission’s July 29th Order is silent on how the FRR Alternative rates will be set but under any plausible design of the FRR Alternative, the rate will be set outside the control of PJM, and the competitive constraints that are part of the BRA will be lost. Once set, these rates

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<sup>58</sup> Order at P 160.

<sup>59</sup> 16 U.S.C. § 824d; *see also* “first principles of capacity markets” CASPR Order at P 21.

<sup>60</sup> *See, e.g.*, N.E. Power Generators Ass’n v. FERC, 757 F.3d 283, 285 (D.C. Cir. 2014).

<sup>61</sup> *Id.* at 290; *See also Hughes v. Talen Energy Marketing, LLC*, 136 S.Ct. 1288 (2016).

can be subject to challenge under a FPA section 206 proceedings.<sup>62</sup> However, *ad-hoc* adjudications are unlikely to be timely, and will not provide sufficient certainty or guidance to assure reasonable capacity charges. The structure of an FRR Alternative must have built-in guardrails so that the Commission, the public, and generators will have confidence that the resulting capacity charges are fair and will be paid.

The People recommend that the Commission adopt an FRR Alternative that will assure a just and reasonable FERC-jurisdictional wholesale rate and avoid lengthy and contentious litigation by adopting a cap on the FRR Alternative capacity rate. This cap will function as a default cap above which FRR Alternative rates are presumptively unjust and unreasonable. The People propose that the FRR Alternative seller cap for a specific resource be equal to the resource-specific Avoidable Cost Rate for such resource, less all of the resource's revenues, including (1) the resource's Projected PJM Market Revenues<sup>63</sup> and (2) the resource's projected out-of-market subsidy or revenues.

The PJM Tariff already provides for the use of net ACR in determining a unit specific offer cap.<sup>64</sup> The unit specific offer cap<sup>65</sup> requires the determination of avoidable cost, applies PJM revenues to the cost, and sets a "net ACR" representing the revenue needed by the resource to cover its avoidable cost and continue operation.<sup>66</sup> When a resource receives out-of-market or non-PJM revenues, it is important to include all revenues, including non-PJM revenues in determining the unit specific net ACR. This assures that the net ACR accurately reflects the revenues the resource needs to continue to operate.

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<sup>62</sup> 16 U.S.C. § 824e.

<sup>63</sup> PJM OATT Attachment DD § 6.8(d).

<sup>64</sup> *Id.* at Attachment DD § 6.7(d).

<sup>65</sup> *Id.* at Attachment DD § 6.4(a), 6.7 & 6.8.

<sup>66</sup> *Id.*; Monitoring Analytics, RPM Avoidable Cost Rate Development at 3 (2006) available at <http://www.monitoringanalytics.com/reports/Presentations/2006/20061108-rpm-workshop-avoidable-cost-rate-dev.pdf>; See 2018 IMM Quarterly State of the Market Report for PJM: January through March at 255.

The resources in the FRR Alternative are, by definition, receiving out-of-market payments in addition to PJM energy and ancillary services revenues. For instance, the Quad Cities nuclear plant will receive approximately \$170 million annually<sup>67</sup>—a substantial sum that contributes to the revenues available to cover the costs incurred in order to stay open. In determining net ACR for purposes of determining a just and reasonable FRR capacity charge, all revenues, including out-of-market payments, must be included to determine the costs that remain to be covered through the capacity charge. If out-of-market payments are not included in the net-ACR calculation, the FRR Alternative would effectively allow the resource to receive a windfall of both out-of-market subsidies and capacity charges even in situations where the out-of-market subsidies and other expected revenues are sufficient to cover the resource’s costs. Accordingly, a proper calculation of net ACR for purposes of the FRR Alternative should include both PJM revenues and out-of-market subsidies. Total revenue is appropriate for the FRR Alternative because it represents the revenues available to compensate the resource so that it can continue to operate and provide capacity.

The People further propose that the FRR Alternative and cap include the opportunity to appeal the FRR Alternative Seller Cap to PJM and ultimately to the Commission. In order to implement the FRR Alternative, after the final auction results, PJM’s Office of Interconnection will file with FERC a list of those FRR Alternative resources whose rates exceed the FRR Alternative price cap. Any party that objects to the calculation of the FRR Alternative cap may file a written objection with FERC no later than 30 days after filing the report. Any objection must provide support for their contention that the cap is an unjust and unreasonable rate and submit

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<sup>67</sup> Zero Emission Standard, Final Payment Calculation Notice of the Illinois Power Agency, Delivery Year: June 1, 2017 through May 31, 2018 (February 8, 2018), *available at* <https://www2.illinois.gov/sites/ipa/Documents/2017ProcurementPlan/Comments/IPA-Payment-Calculation-Notice-Delivery-Year-2017-2018.PDF>.



documentation of its avoidable cost to demonstrate that the price combined with all other revenues does not cover its net ACR.

The People agree with proposals that PJMSettlement provide billing and settlement services for FRR Alternative resources and load.<sup>68</sup> Absent a successful appeal, PJMSettlement will not provide billing and settlement services at rates that exceed the FRR Alternative Seller Cap, regardless of the FRR Alternative Rate submitted by the Capacity Market Seller. If the FRR Alternative Rate submitted by the Capacity Market Seller exceeds the FRR Alternative Seller Cap, PJMSettlement will provide billing and settlement services at a rate equal to the FRR Alternative Seller Cap or if there is an appeal, the Commission approved rate.

The Commission's goal is to address the effect of out-of-market payments on FERC-jurisdictional wholesale markets while ensuring that all wholesale rates are just and reasonable. The Commission stated: "States may continue to support their preferred types of resources in pursuit of state policy goals. At the same time, we have exclusive jurisdiction over the wholesale rates of both subsidized and unsubsidized resources, and a statutory obligation to ensure that they are just and reasonable."<sup>69</sup> Devising a net-ACR FRR Alternative cap that includes all revenues available to cover avoidable costs—PJM revenues as well as state out-of-market revenues—assures that the resulting FRR Alternative capacity credit achieves both the goal of retaining state preferred resources and the requirement that FERC-jurisdictional rates are just and reasonable.

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<sup>68</sup> PJM Interconnection, L.L.C., Current Approach to FERC Order on Capacity Markets and Public Policies, Special MRC at 2 (Aug. 15, 2018), available at <https://pjm.com/-/media/committees-groups/committees/mrc/20180815-special/20180815-item-02-current-approach-to-ferc-order-on-capacity-markets.ashx>.

<sup>69</sup> Order at P 158.

**V. THE COMMISSION SHOULD DELAY IMPLEMENTATION OF ANY CHANGES TO THE PJM TARIFF BY AT LEAST ONE YEAR TO ALLOW STATES TO ENACT APPROPRIATE LEGISLATION.**

The FRR Alternative envisioned by the Commission relies on state action and collaborative federalism. The Commission's FRR Alternative requires generators and consumers to rely on the states to develop and approve an FRR Alternative to determine how to procure capacity in connection with the carved-out resource. The Commission should be cognizant of the fact that participating states' approaches to determining how to institute the FRR Alternative, whether it is an auction overseen by a state agency, a state commission rule or order, a legislative directive, or some combination, will require time to develop and implement. For example, state legislation may be necessary to provide sufficient authority to state regulators or agencies to administer an FRR Alternative pricing methodology and administration. Accordingly, the People request that the Commission delay the implementation of changes until not sooner than delivery year 2023/2024.

The need for sufficient time is particularly pressing in this situation because the FRR Alternative can be expected to be a completely novel construct for the states, PJM, and the Commission. Whatever the state ultimately prefers will need to be acceptable and workable for PJM, which will be removing a given resource from the RPM, and the Commission, which will retain ultimate jurisdiction over the rate paid by ratepayers to the carved-out resource. To avoid unnecessary litigation, unintended consequences or externalities, and foreseeable, avoidable future difficulties, an allowance for sufficient time is critical.

The passage of new laws at the state level can operate on a timeline outside the control of affected parties, including state commissions, utilities, generators, and ratepayers. The Illinois General Assembly has 118 representatives and 59 senators. The legislative term ordinarily ends

on May 31 of each year, at which time legislation must be reviewed and signed by the Governor to become effective, or vetoed and subject legislative override, which traditionally can occur in late November, early December. Once legislation is adopted, implementation by an administrative agency such as the Illinois Power Agency or the Illinois Commerce Commission takes additional time.

The steps to enacting a viable FRR Alternative will require no less than one year. The ZEC legislation took several years to finally enact and administer, after numerous hearings and meetings and formal regulatory action.<sup>70</sup> The People believe that no less time is necessary to develop an effective FRR Alternative. The People request that the Commission defer action on any plan that requires or relies on state action until the state can certify that the necessary action has been taken, even if that certification postpones implementation of the Commission's order. PJM's auctions are for three years in the future, giving the Commission and the parties some flexibility in scheduling.

## **VI. CONCLUSION**

The implementation of the MOPR and the creation of the new FRR Alternative will necessarily inject tremendous uncertainty into the capacity markets going forward. This uncertainty may result in unnecessarily high capacity prices in both the PJM BRA and the FRR Alternative, to the detriment of the consumers of the various PJM states. The protections proposed herein to guard against unjust and unreasonably high prices resulting from the MOPR or the proposed FRR Alternative will provide guidance to generators, states, and utilities on how state subsidies will be treated going forward. Importantly, the Commission should defer action

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<sup>70</sup> See, e.g., Illinois Power Agency, Zero Emission Standard Procurement Plan (Oct. 31, 2017) (issued nearly a year after FEJA was signed into law), *available at* <https://www2.illinois.gov/sites/ipa/Documents/2018ProcurementPlan/Zero-Emission-Standard-Procurement-Plan-Approved.PDF>.

on any plan that requires or relies on state action until the state can certify that the necessary action has been taken, even if that certification postpones PJM's May capacity auction and implementation of the Commission's order.

For the foregoing reasons, the People of the State of Illinois respectfully request that the Commission adopt the recommendations above.

Respectfully submitted,

Dated: October 2, 2018

\_\_\_\_\_/s/\_\_\_\_\_  
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**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served, via first-class mail, electronic transmission, or hand-delivery the foregoing upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Chicago, Illinois this 2<sup>nd</sup> day of October, 2018.

\_\_\_\_\_/s/\_\_\_\_\_  
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