

PSEG Companies’ Proposal For A “Carbon Adjusted Minimum Offer Price Rule”

PSEG’s “Carbon Adjusted Minimum Offer Price Rule” (“CAMOPR”) proposal provides the PJM Board of Managers with the opportunity to adopt revisions to the PJM tariff that will increase the economic efficiency of the PJM markets, will remove an unwarranted obstacle to the achievement of the PJM states’ carbon reduction goals and will establish PJM’s leadership as a change agent in moving towards the establishment of a carbon free energy economy. PSEG further submits that, of all the options presented to the Board for consideration, the CAMOPR will be the most resilient to potential legal challenges and thus will provide the most stability to the PJM market design into the future.

FERC’s Expanded MOPR created a significant stumbling block for efforts by states within the PJM footprint to address climate change. Applying price floors to new and existing zero carbon resources intended to serve some of the largest population centers in the country will unnecessarily increase the cost of zero carbon power as well as prop-up uneconomic fossil generation. These are exactly the wrong measures to implement as economies throughout the world struggle to meet carbon reduction goals necessary to avoid or at least mitigate the devastation that scientists expect under a business-as-usual scenario. Further, previous discussions of MOPR have not adequately considered the economic impact of the lack of a proper carbon price in PJM energy markets. In fact, state subsidies to zero carbon resources consistent with the established level of the Social Cost of Carbon (“SCC”) actually enhance PJM’s market efficiency. The recognition of this fact in the CAMOPR is not only sound economics but it also makes the CAMOPR resilient to potential legal challenges.

A. The Elements of PSEG’s CAMOPR Proposal

PSEG’s CAMOPR proposal consists of the following key elements:¹

1. The CAMOPR proposal has two different tests for identifying the potential exercise of “buyer side market power”: one test addresses “traditional” buyer side market power focused on whether a retail load serving entity with captive customers has the incentives and ability to suppress prices in wholesale power markets below competitive levels; a second test is used for analyzing subsidies by states to particular resources or technologies to achieve state policy goals and is focused on whether the subsidy will tend to enhance or undermine market efficiencies.
2. Traditional buyer side market power could be a concern for self-supply entities that have captive customers. For this part of its proposal, the CAMOPR generally adopts the standards and approaches proposed by PJM except that, as discussed further below, PSEG suggests that PJM and not FERC be the decision-maker as to application of the MOPR.
3. State subsidy programs are evaluated under the CAMOPR from the standpoint whether, when known costs of production are considered, the state program can be shown to increase market efficiencies or at least not pose a significant risk of causing market inefficiencies. At

¹ References to the PJM proposal are to the PJM proposal presented to stakeholders at the June 16, 2021 meeting.

present, a glaring missing element in the PJM market is that the cost of carbon is not fully recognized by rival electric generators in their cost-based competition. This omission results in sub-optimal market outcomes in which the preservation and development of zero carbon resources may be stymied. As discussed below in greater detail, state programs to support zero-carbon resources through subsidies consistent with the SCC will enhance the efficiency of PJM markets. Further, an evaluation of zero carbon resource programs within the PJM footprint shows that the implied cost of carbon under the vast majority of programs is less than the outer bounds of the SCC under the most current federal government determinations.² Accordingly, there should be a blanket exclusion from MOPR for all zero-carbon support programs created by states.

But programs designed by states to promote other policies – for example a state program to help keep coal plants in operation – would not pass this test and therefore resources receiving support under those programs should be subject to MOPR floors. The CAMOPR therefore has a “bright line” delineation for which state programs trigger the MOPR: state programs supporting zero carbon resources are exempted; state programs to promote other policies are subject to the MOPR. Finally, the CAMOPR includes a periodic review of the analysis supporting the blanket exemption for zero carbon resource programs beginning with the RPM Quadrennial Review for the 2031/2032 Delivery Year.

4. PSEG proposes that PJM, with the input of the IMM, make decisions regarding application of the MOPR and that market participants that disagree should file for reversal of PJM’s determination at FERC under FPA Section 206. This differs from the PJM proposal which requires FERC’s acceptance of an FPA Section 205 filing made by PJM before the MOPR is applied. PSEG also proposes as a protection to market participants, that if PJM’s determination to apply the MOPR is reversed, either at FERC or in an appeal, and the reversal occurs after the relevant BRA is held, the affected unit be given the option to accept a commitment as a capacity resource and to be compensated at the same price as other resources in the area in which the affected resource is located.
5. PSEG does not propose to include the element of the PJM proposal whereby state programs initiated prior to the acceptance of the revised MOPR are grandfathered. But PSEG proposes that units subject to MOPR that clear in a BRA not be subject to MOPR in the future. This differs from PJM’s proposal which applies the MOPR year-on-year without regard to whether the MOPRed unit clears. Further, this approach is consistent with pre-Expanded MOPR FERC precedent that a MOPRed unit that clears one BRA is “economic.”³
6. Subject to conforming changes related to the differences noted above, other elements of the CAMOPR are identical or substantially similar to PJM’s June 16, 2021 proposal.

² Using federal SCC values as the benchmark would be consistent with the principles of “cooperative federalism.”

³ See *PJM Interconnection, L.L.C.*, 137 FERC ¶ 61145, P 130 (2011) ([R]eject[ing] . . . argument that clearing in one capacity auction is insufficient to prove that resources are economic.”)

B. State Programs Supporting Zero Carbon Resources Can Improve Market Efficiencies

The most significant innovation of the CAMOPR is its recognition that state programs supporting zero carbon resources within the PJM footprint generally are efficiency enhancing and therefore support competitive outcomes. With this recognition, the exclusion from MOPR provided by the CAMOPR for zero carbon resources that receive state support can be analyzed within the framework of FERC's MOPR decision in *Calpine*.⁴

The Commission's orders in *Calpine* were concerned with "price distortions" in the capacity market based "on the economic theory that resources receiving subsidies will be able to offer below their costs."⁵ FERC concluded that "subsidized resources can suppress capacity market clearing prices below competitive outcomes by offering below their costs"⁶ including programs to support zero carbon resources. But *Calpine* did not take account of the price distorting impacts of a lack of a price for carbon in the PJM markets. Because an adequate SCC is not included in market offers, the costs of emitting generators are significantly understated. The result is that these plants "will be able to offer below their costs" effectively suppressing prices to non-emitting generators. Accordingly, state action to provide support for zero-carbon resources, at least when such payments do not exceed a reasonable SCC, counteract the "price distortions" inherent in the current market. Payments supporting zero carbon resources therefore should not be considered to be suppressing prices below competitive levels when they are in line with reasonable SSC values.

PSEG retained economist, Dr. Lawrence Makovich, to evaluate the impact of state programs supporting zero carbon resources and to provide a presentation at the June 21, 2021 stakeholder meeting. Accepted economic theory is that one of the conditions necessary for effective competition to generate an economically efficient market outcome is that "all relevant costs" are internalized by rival suppliers in their cost-based competition. Thus, further noting that proper oversight of "regulated industries is [to] regulate them in such a way as to produce the same results as would be produced by effective competition", Dr. Makovich's presentation concluded:

Because zero-emission credits and policy-driven deployment of resources with implicit cost of carbon removal less than or equal to the SCC result in a *more* cost-effective resource mix than the market outcome that would occur without these interventions, therefore the stakeholder process should ensure that the MOPR is not applied in such cases.⁷

As confirmed by Dr. Makovich, creating an exemption for MOPR for zero carbon resources that receive state subsidies not in excess of reasonable SSC values is economically justified and, in fact, will increase market efficiency.

⁴ See e.g., *Calpine Corp., et al.*, ("Order on Rehearing and Clarification"), 171 FERC ¶ 61,034 (2020) ("*Calpine*").

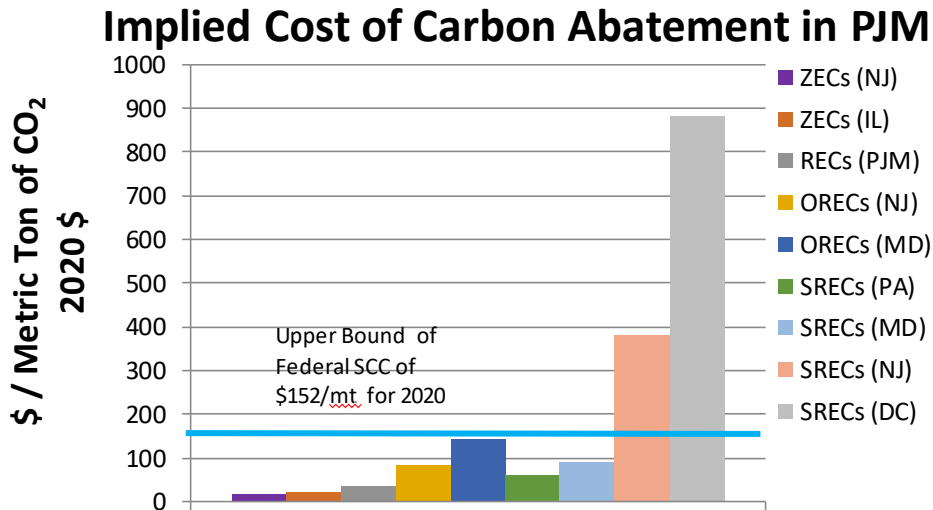
⁵ *Id.* at P 34.

⁶ *Id.* at P 26.

⁷ Dr. Makovich's June 16, 2021 presentation at 6, 7, 10. (available at <https://www.pjm.com/-/media/committees-groups/cifp-mopr/2021/20210616/20210616-cifp-mopr-pseg-proposal-impact-of-state-subsidies-to-support-zero-carbon-resources-at-levels-consistent-with-the-social-cost-of-carbon.ashx>)

C. A Blanket Exemption From MOPR For All Zero Carbon Resources Receiving State Subsidies Within PJM Is Appropriate

Most zero carbon programs sponsored by states located within the PJM footprint have an implied cost of carbon that is below the upper bounds of the levels established by the federal government. The chart below depicts the implied SCC of most zero carbon programs sponsored by PJM states and shows that in most instances the implied carbon cost inherent in the subsidies is below the SCC outer bounds.⁸



Notes: Values for programs taken from State of the Market Report except for SRECs which are derived from state commission determinations of expected subsidy levels. Federal SSC values found at https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf?source=email

Further, the two programs identified as having implied carbon costs in excess of the federal SCC levels—i.e., the New Jersey and District of Columbia SREC programs -- would be too small to have a material impact on capacity market outcomes.⁹ Accordingly, a blanket exemption of all PJM zero carbon programs is justified.

D. While the PJM MOPR Proposal Has Merit, the CAMOPR is the Superior Option

PSEG believes that PJM proposal has merit and should be deemed to be within “the zone of reasonableness” if filed at FERC. PSEG submits, however, that the CAPMOPR is superior:

- The CAMOPR is Will Be More Resilient To Potential Legal Challenges: Compared to the PJM proposal, the CAMOPR the has a more robust economic test for identifying the

⁸ The implied carbon abatement cost for a particular program can be determining by dividing the \$/MWh attributes payment amount by the weighted average around-the-clock PJM 2019 marginal CO₂ intensity rate of 0.552 metric tons/MWh.

⁹ For further discussion of this point, see PSEG June 16, 2021 presentation available at <https://www.pjm.com/-/media/committees-groups/cifp-mopr/2021/20210616/20210616-cifp-mopr-pseg-proposal-presentation.ashx>.

potential exercise of market power by state subsidy programs. In addition, while state programs supporting zero carbon resources are given a blanket exclusion because the vast majority of state subsidies to zero carbon resources are efficiency enhancing, state subsidy programs that have not been shown to be economically justified remain subject to MOPR. The rationale supporting the CAMOPR thus gives FERC a defensible basis to “change course” within the decisional framework of the *Calpine* orders. Finally, the CAMOPR would be less susceptible to legal challenge because it applies the economic test to all state subsidy programs instead of just grandfathering pre-existing programs.

- The CAMOPR Provides a Blanket Exemption For State Programs Supporting Zero-Carbon Resources: The PJM proposal requires a case-by-case examination of state support programs focusing on whether the payment is “conditioned” on clearing in capacity auctions. While PJM apparently intends for this examination to focus on explicit cases of conditioning, the test poses a “slippery slope” risk. Disagreements among stakeholder could arise as to whether the elements of a particular program create *de facto* “conditioning”, even though explicit conditioning may not be present. In contrast, the CAMOPR makes a “bright line” delineation: it exempts all state programs supporting zero carbon resources and applies to all other state programs supplying subsidies.
- The CAMOPR Has Better Procedures to Address Disagreements: The PJM proposal effectively delays challenges of a MOPR application decision pending PJM’s Section 205 filing. Further, FERC’s limited flexibility to modify Section 205 filings would affect FERC’s ability to devise a remedy for an affected company short of MOPR application; Section 206 offers more flexibility to FERC. Finally, the CAMOPR would provide compensation consistent with the filed rate doctrine if challenges are successful; PJM’s proposal does not permit any recompense for an improperly MOPRed unit in a BRA. .
- MOPRed Units That Clear a BRA Should Not Be Subject to the MOPR in the Future: This approach would be consistent with FERC precedent that units clearing a BRA are “economic” and would reduce administrative burdens on PJM.
- Explicit Recognition of SSC Impacts In the Establishment of the Scope of the MOPR Will Place PJM in a Leadership Role in Moving Towards a Clean Energy Economy: PJM has the opportunity to become a change agent in addressing the worldwide problem of CO₂ emissions by being the first RTO to recognize the SSC in its tariff as a cost of production. It should embrace the opportunity to assume this leadership role.

Ultimately, PJM will need to adopt an appropriate cost on carbon in its energy market to achieve clean energy initiatives in the most efficient manner possible. But until that time, the efficient, cost-effective efforts of the states to achieve the decarbonization of our energy supply through subsidies consistent with reasonable SSC valuations must be allowed. The CAMOPR achieves this end. Or, if the Board prefers, the key innovation of the CAMOPR – the blanket exemption from MOPR for zero carbon support programs while the MOPR remains applicable to other state support programs – could be added as a component to other MOPR proposals.