Maintaining Resource Adequacy in PJM
While Accommodating State Policies:
A Proposal for the Resource-Specific FRR Alternative

July 27, 2018

Prepared For

Sierra Club

Natural Resources Defense Council

District of Columbia Office of the People's Counsel

American Council on Renewable Energy

Prepared By

Rob Gramlich
Grid Strategies LLC
www.gridstrategiesllc.com

James F. Wilson
Wilson Energy Economics
www.wilsonenec.com

I. Introduction

The June 29, 2018 FERC Order in Docket Nos. ER18-1314 and ER18-178[1] ("MOPR Order") rejected both of PJM's proposed packages of changes to the Minimum Offer Pricing Rule ("MOPR") provisions under its tariff. Instead, FERC called for a paper hearing to develop expanded MOPR rules and a new option whereby resources could satisfy capacity obligations outside of the central Reliability Pricing Model ("RPM") capacity construct. In particular, the MOPR Order called for a resource-specific version of the existing Fixed Resource Requirement ("FRR") alternative (hereafter, "FRR-RS"). The MOPR Order recognized that there would be many details to be worked out about the FRR-RS design, and included a list of questions in that regard.[2]

In a July 9, 2018 communication to stakeholders, PJM requested input from stakeholders on a market design that would "bring to life" the concepts described in the MOPR Order.[3] We were asked by the Sierra Club and Natural Resources Defense Council to identify the principles that should guide the design of the FRR-RS and to present a specific proposal. This paper focuses on the FRR-RS provisions; it does not address the changes to the MOPR, or the determination of the resources that will be subject to the MOPR.

The FRR-RS proposal described herein is intended to closely track the guidance in the MOPR Order, and to entail changes that can be designed and implemented rather quickly if necessary. Some PJM states may consider broader measures in reaction to the MOPR Order, including paths that could ultimately lead to removing all of the states' load from RPM. This possibility is outside the scope of this paper.

Other potential changes to the PJM capacity construct are under discussion or may be warranted, such as seasonal capacity procurement, fuel security measures, changes to how ratings are established for wind and solar resources, inter-zonal capacity assignments, and various provisions of the Capacity Performance rules, to name just a few. The proposal in this paper focuses on the FRR-RS design for the new MOPR, generally assuming the status quo with regard to other rules, and not discussing the merits of other possible changes to PJM's capacity construct. The final section of the paper includes a question and answer section with a few comments on how the proposal might be affected by some of these other changes.

The remainder of this paper is organized as follows. The next section discusses some of the relevant history of the RPM MOPR and of the current FRR rules, and summarizes the guidance provided in the MOPR Order as to FRR-RS design. Section III identifies principles for the design of an FRR-RS, and Section IV presents a specific proposal. Section V summarizes the features and benefits of the proposal. The final section provides a Q&A with regard to the FRR-RS proposal.

[1] Calpine Corporation et al v. PJM Interconnection, LLC, 163 FERC ¶ 61,236 issued June 29, 2018 ("MOPR Order").
[2] MOPR Order PP 164-171.
[3] PJM, Memo to PJM Members, States and Interested Stakeholders, July 9, 2018, p 1.

II. Background

A. The Existing RPM FRR Rules

The original RPM design included a Fixed Resource Requirement ("FRR") provision, negotiated as part of the RPM settlement.[4] Under FRR, an electric distribution company could choose to not participate in RPM and instead arrange a portfolio of capacity resources to meet its entire PJM-determined resource adequacy obligation. The FRR option faced opposition in the RPM settlement process, and, as a result, the design included provisions to restrict eligibility and make FRR difficult or unattractive to use. The FRR provisions have been used by a few different entities over the years, in particular in the AEP zone. Outside of the AEP zone, less than one percent of the PJM resource adequacy need has been met under the FRR provisions.[5]

B. The Scope of the RPM MOPR

When RPM was first implemented over a decade ago, the MOPR was included as a provision to thwart any deliberate buyer-side attempt to suppress RPM prices, and in the first several base residual auctions it was never triggered. Over the years, the MOPR rules have been changed multiple times, and the MOPR's apparent mission has changed.

With the MOPR Order, the Commission found PJM's current MOPR unjust and unreasonable, and initiated a process to expand the MOPR to cover all resources (including both new and existing resources) with out-of-market support.[6] Thus, the MOPR, which to date has applied only to new, gas-fired resources, would be expanded to apply to new and existing resources that receive subsidies, including renewables. FERC's position is that subsidized resources suppress RPM prices, regardless of intent, resulting in unjust and unreasonable prices.[7] Under this framework, the MOPR focuses on out-of-market state support, it no longer has to do with exercise of market power or deliberate attempts to suppress prices.

While calling for further expansion of the MOPR, FERC in the MOPR Order recognized that this fails to accommodate resources in the market with state support, and could lead to consumers having to pay twice for capacity.[8] Accordingly, FERC called for the FRR-RS option to afford resources to which the MOPR would apply an opportunity to serve as capacity and to have their contributions to resource adequacy recognized, while protecting RPM price formation from the alleged impact of such resources' subsidies.

[4] PJM Open Access Transmission Tariff ("PJM Tariff"), Attachment DD, and Reliability Assurance Agreement Among Load-Serving Entities in the PJM Region ("RAA"), Schedule 8.
[5] The FRR quantities by zone are reported in PJM, *Planning Period Parameters for Base Residual Auction*, available at http://www.pjm.com/markets-and-operations/rpm.aspx.
[6] MOPR Order, P 157.
[7] MOPR Order, PP 155-156.
[8] MOPR Order PP 159-160.

C. The New Resource-Specific FRR Option Proposed in the MOPR Order

The MOPR Order identified the following basic components of the proposed FRR-RS (P 160):[9]

- "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."
- Such resources would "exit the capacity market with a commensurate amount of load and operating reserves"
- "Resources and load that take advantage of this new resource-specific FRR Alternative would not participate in the PJM capacity market, and would neither make nor receive payments from that capacity market."
- "those resources and their associated load would continue to participate in the energy and ancillary services market, as is the case under the current FRR construct."
- "Unlike the current FRR construct, the resource-specific version would not require a load-serving entity to remove its entire footprint from the capacity market; rather it would remove a specific resource (and accompanying load)."

As noted, the MOPR Order recognized that there would be many details to be worked out about the design of the resource-specific FRR option, and included a list of questions (PP 164-172).

III. Principles for the Design of the FRR-RS

The new, expanded scope of the MOPR will potentially result in many more resources subject to administratively-determined minimum offer prices well above recent RPM clearing prices, and it appears likely that many of these resources will no longer be able to clear in RPM. The FRR-RS option can provide a path for such resources to serve as capacity resources and to receive compensation for their capacity.

The design of the FRR-RS provisions should be guided by the following principles:

1. The treatment of load and resources under the FRR-RS, together with capacity procurement under RPM, should continue to reliably satisfy PJM's RTO-wide and locational resource adequacy objectives.
2. Price formation under RPM should continue to succeed in attracting and retaining sufficient resources to meet resource adequacy objectives, when accounting for the resources and loads participating through the FRR-RS.
3. The potential for unexpected "shocks" to the capacity supply-demand balance and resulting prices (for instance, when a large resource that was expected to retire subsequently receives a state subsidy

[9] The concept of a more flexible FRR option was discussed in the PJM Capacity Construct Public Policy Senior Task Force stakeholder process and also in the analogous New England Integrating Markets and Public Policy stakeholder process. See *Capacity Choice - Proposed Solution for PJM CCPPSTF*, CCPPSTF meeting, September 11, 2017, and *Public Power Proposal: Bilateral-Residual Capacity Market Structure*, posted on the NEPOOL IMAPP page.

and is retained) may warrant some limits on access to FRR-RS to allow the market time to absorb the capacity.[10]

4. Subject to these resource adequacy and price formation goals, the FRR-RS provisions should be as flexible as possible to best accommodate resources that are receiving support according to state policy objectives.
5. Through RPM and FRR-RS, the contributions to resource adequacy of all capacity resources should be recognized (loads should not have to "pay twice" for capacity).
6. All resources that provide capacity, whether cleared through RPM or under FRR-RS, should provide the same Capacity Performance product. There should be no difference in the obligations of RPM- and FRR-RS-committed resources; the only difference is in how the resources are contracted and compensated. All provisions of the PJM Tariff and associated agreements should apply equally to FRR-RS-cleared and RPM-cleared resources to the maximum extent.
7. Exercise of market power in the RPM and FRR-RS capacity market by sellers or buyers should be absent or mitigated.
8. The introduction of the FRR-RS rules, and of the expanded MOPR rules they will accompany, should be coordinated to ensure a smooth transition and minimize uncertainty and disruption in the capacity market.

IV. A Specific Proposal for FRR-RS

The following paragraphs propose how the FRR-RS could work consistent with the guidance provided in the MOPR Order and the above principles. The current FRR rules are assumed to remain in place, consistent with the MOPR Order,[11] and would not apply to resources' and LSEs' arrangements under FRR-RS.

A. Eligibility for FRR-RS

1. Resources that are subject to the MOPR would generally be eligible to elect FRR-RS. However, some restrictions may be appropriate. Existing resources that have indicated an intention to retire (through formal notice of retirement to PJM or to investors), or that failed to clear in the most recent RPM base residual auction, and only subsequently obtained a state subsidy, might be ineligible for FRR-RS for one year, to allow the market to absorb the change.
2. Resources electing the FRR-RS option for any portion of their capacity would not participate in RPM (a portion of a resource under FRR-RS and a portion under RPM would not be accommodated).

[10] For further discussion see Wilson, James F., *Post Technical Conference Comments,* State Policies and Wholesale Markets Operated by ISO New England Inc., New York Independent System Operator, Inc., and PJM Interconnection, L.L.C. Docket No. AD17-11-000, June 22, 2017, pp. 4-5; Wilson, James F., *Comments on Triggering, Re-Pricing and other CCPP Issues*, CCPPSTF meeting August 3, 2017.

[11] "We are not proposing that PJM remove the existing FRR construct" (MOPR Order, P 160).

B. The Three Year Forward RPM and FRR-RS Process

3. All resources that are eligible or potentially eligible to provide capacity (Capacity Performance, including seasonal Capacity Performance), whether intending to participate in RPM, in FRR-RS, or undecided in that regard, would go through the process before each base residual auction, as under the current rules, to have the following aspects of their eligibility determined. It may be valuable to also allow resources to request preliminary determinations of some of these details at an earlier time.
    a. their eligibility to provide capacity (Capacity Performance, "CP"), either as annual or as Winter or Summer capacity resources;
    b. their unforced capacity ("UCAP");
    c. whether the MOPR applies to the resource;
    d. whether the resource qualifies for any exemption from the MOPR;
    e. if the MOPR applies, the resource's "Reference Price" (minimum allowed offer price), reflecting any applicable exemption or unit-specific exception, based on the yet-to-be-developed new MOPR rules.
4. Resources that anticipate eligibility for FRR-RS could seek entities with capacity obligations (LSEs) and attempt to reach agreement to assign some or all of their capacity. An FRR-RS resource's UCAP would reduce an LSE's RPM capacity obligation (which is also expressed in UCAP, and reflects the required reserve margin) on a MW for MW basis, as under the current FRR rules.[12]
5. The agreements to assign capacity between FRR-RS resources and LSEs would be FERC-jurisdictional wholesale contracts, and presumably would include provisions to address:
    a. the amount of the resource's UCAP assigned to the LSE;
    b. the payment to the resource for its UCAP;
    c. the duration of the agreement;
    d. how various costs and risks would be allocated among the parties, such as credit requirements, CP penalties and bonus payments, changes in the resource's UCAP, etc.
6. The FRR-RS assignments would be reported to PJM no later than four months before each base residual auction (as under the current FRR rules)[13] by the resources electing FRR-RS, and would be confirmed by the LSEs accepting the assignments. PJM would verify the compliance of the FRR-RS assignments with applicable rules. Seasonal FRR-RS resources would be able to form commercial aggregates based on matched amounts of Summer and Winter capacity, and such aggregates would be treated the same as commercial aggregates of RPM resources. Seasonal FRR-RS resources would not participate in RPM and would not be able to use the in-auction aggregation and clearing provisions of RPM.
7. PJM would aggregate the commensurate loads associated with the FRR-RS assignments by modeled LDA to determine the adjustments to the RPM Variable Resource Requirement ("VRR") capacity

[12] RAA Schedule 8 Section D.2; see also the RPM Planning Parameters for each base residual auction, calculating the Preliminary FRR Obligation as the Total Peak Load of FRR Entities times the FPR.

[13] If the new MOPR and FRR-RS provisions will be implemented for the May 2019 base residual auction (which is unlikely to be feasible) this deadline may have to be relaxed as a one-time transitional measure.

demand curves. The RPM base residual auction would be held using the adjusted VRR curves, and without participation by the FRR-RS resources, as now with the current FRR rules.

8. Locational requirements would apply. For example, resources located in constrained LDAs could be assigned to LSEs in the same LDA or in a surrounding, "parent" LDA or the RTO region without restriction. As under the current FRR rules, an LSE's assigned FRR-RS resources would have to respect the PJM-established percentage of internal (LDA) capacity.[14] Any external resources that become eligible for FRR-RS would be treated in the same manner.
9. Market power oversight would be performed by FERC as for other bilateral transactions.

C. From the Base Residual Auction to the Delivery Year

10. FRR-RS capacity resources would have the opportunity to replace part or all of their capacity commitments as needed, similar to the opportunity available to RPM resources. However, FRR-RS capacity would not participate in the RPM incremental auctions, could only be replaced by other, eligible FRR-RS capacity, and any replacement would also be subject to approval by the LSEs to which the FRR-RS capacity had been assigned.
11. The same provisions applicable to RPM capacity would also apply to FRR-RS capacity with respect to ensuring that three-year forward capacity sales represent legitimate offers to provide capacity.

D. Operation of FRR-RS in the Delivery Year

12. Entering the delivery year, the UCAP values and commensurate load amounts of all FRR-RS resources would be updated to reflect updated outages rates, among other possible changes, as for RPM resources. Corresponding adjustments would be made to LSEs' RPM capacity obligations.
13. In the Delivery Year, all resources, whether committed through RPM or FRR-RS, are Capacity Performance resources (either annual or as aggregated seasonal resources) with all the same obligations, including performance obligations and penalties, monitoring and control, etc.
14. The allocation of RPM cost to LSEs would reflect LSEs' load obligations net of their final commensurate FRR-RS capacity amounts, and would also take into account the locational distribution of assigned FRR-RS resources.

V. Questions and Answers about the FRR-RS Proposal

This section provides responses to some likely questions about the FRR-RS proposal.

Q 1: What is the likely impact of the FRR-RS proposal on RPM prices and costs?

Compared to the status quo MOPR, the expanded MOPR suggested in the MOPR Order, without the FRR-RS option, would potentially result in a substantial increase in RPM prices and costs, at least in some zones, due to the broader application of the MOPR. If the FRR-RS option is added, and if it is successful and

[14] RAA Schedule 8 Section D.5.

useful, it would largely offset the potential impact of an expanded MOPR and lead to RPM results closer to recent results.

Q 2: Would movement of resources between RPM and FRR-RS lead to uncertainty and disruption?

No. It will be rather predictable which resources will find FRR-RS attractive (many MOPRed resources), and such resources would generally not have much incentive to return to RPM. In any case, because FRR-RS election results in removing a commensurate amount of load from RPM, the supply and demand curves shift by the same amount, so there should be little or no impact on RPM clearing prices.

Uncertainty and disruption could, however, result from a hasty implementation of the new MOPR and FRR-RS rules. If states have not had sufficient time to take necessary actions to enable use of FRR-RS, and market participants have not had sufficient time to make the necessary arrangements to use FRR-RS, the implementation of the MOPR could lead to uncertainty and disruption, and possibly temporary RPM price spikes in some zones.

Q 3: Why is it appropriate for an FRR-RS resource's unforced capacity ("UCAP") to offset an LSE's UCAP capacity obligation on a MW-for-MW basis?

This identification of "commensurate load" results in the LSE doing its share to meet resource adequacy needs. This approach also comports with the current FRR rules. An LSE's UCAP obligation is, roughly speaking, its peak load times the Forecast Pool Requirement ("FPR"), which typically is around 1.08. The FPR represents the margin of UCAP over peak load needed for resource adequacy. Looked at another way, for 100 MW of FRR-RS UCAP, the "commensurate [peak] load" that it can offset is 92.6 MW (100 MW x 1/1.08).

The RTO "installed reserve margin" is a more familiar measure, and is typically around 16%. If an LSE meets its UCAP obligation with resources that have a 7% forced outage rate (that is, the resources' UCAP is 93% of the installed capacity), then the LSE has arranged a 16.1% installed reserve margin (peak load x 1.08 x 1/.93 = 1.161).

Q 4: Would FRR-RS result in some loss of the portfolio benefit reflected in centralized RPM procurement?

No. RPM already accommodates bilateral contracting for capacity; the three-year forward auction is intended to be a base *residual* auction, clearing additional resources beyond those for which market participants have already made arrangements. The RPM auctions determine which *marginal* resources (including high-cost existing resources, and potential new resources) will clear and provide capacity, while *inframarginal* resources (including low-cost resources and contracted resources) offset loads (either within the auction, or outside through FRR-RS) and do not affect price formation.

Q 5: Under FRR or the proposed FRR-RS, a fixed resource requirement is used, while under RPM, the RPM Base Residual Auction is cleared against a sloped Variable Resource Requirement ("VRR") capacity demand curve, and may clear more or less than the reliability requirement. Is this fair to all customers?

This is fair to all customers. The base residual auction may (and typically does) clear a quantity different from the reliability requirement (peak load times FPR) due to the sloped VRR demand curves, and usually a larger quantity is cleared. However, to the extent a larger quantity is cleared, the clearing price, and total capacity cost (price times quantity) is actually lower, due to the sloped demand curve. So while customers who are relatively more exposed to RPM may be nominally paying for relatively more MW of capacity, to the extent this occurs they will actually incur less capacity cost than if RPM (like FRR and FRR-RS) cleared exactly the reliability requirement.

The sloped demand curves were implemented to provide greater price stability, and to recognize that when capacity is relatively inexpensive [or expensive], it is appropriate to acquire relatively more [or less]. The sloped demand curves provide benefits to the loads and resources participating in the RPM auctions, and these benefits (and the associated quantity outcomes) are not applicable to the loads and resources that are being matched under FRR or FRR-RS.

Q 6: Is there a need to reconsider the shape of the VRR curves when the FRR-RS option is implemented?

No, the FRR-RS option would not appear to create a need to change these curves. The VRR curve shape already naturally adjusts to larger and smaller zones, because the quantity points are defined based on percentages of the reliability requirement. The current VRR curve shape has been used to clear zones as large as the RTO and as small as DPL South (with a reliability requirement under 3,000 MW). So if a zone shrinks due to FRR-RS election, the VRR curve adjusts accordingly.

Q 7: The existing FRR rules include a five-year "minimum stay," is there a need for such a requirement for FRR-RS?

There does not seem to be a need for a minimum stay requirement in the case of the resource-specific FRR-RS. FRR-RS is only open to resources that are MOPRed and, presumably, would not be able to clear in RPM. So an FRR-RS resource would generally see little reason to try to return to RPM.

An FRR-RS resource might consider returning to RPM if it appeared there could be a capacity shortage in its zone and RPM prices were likely to spike in the next RPM base residual auction. In that circumstance, if the FRR-RS resource and its commensurate load were to return to RPM, and if the resource were to clear at its Reference Price, that presumably would prevent an even higher price spike. Such an outcome should be preferred over an outcome with a more extreme price spike.

Q 8: Will the existing FRR provisions remain and still be used? What is the relationship between the proposed resource-specific FRR-RS option and the existing FRR?

The existing FRR provisions provide an option for an LSE to satisfy 100% of its capacity obligations using any RPM-eligible resources (subject to the locational constraints), while only those resources subject to the MOPR are eligible for FRR-RS. So with the resource-specific FRR-RS there still remains a role for the existing FRR option.

Q 9: Should the FRR-RS option be opened up to all capacity resources, not just MOPRed resources?

This is a possibility that should be considered. There would seem to be no reason not to open up FRR-RS to all resources. With that approach, the existing FRR option, which is less flexible, would no longer be needed or attractive.

Q 10: If the FRR-RS option is opened up to all capacity resources, would some additional restrictions be appropriate?

It may be appropriate to impose some of the restrictions under the FRR rules to non-MOPRed resources that elect FRR-RS. For instance, it may be appropriate to impose "minimum stay" restrictions on the non-MOPRed resources.

Q 11: Which LSEs will contract for the capacity of FRR-RS resources? Will states need to get involved to make this happen?

Any LSE could contract with an FRR-RS resource for the assignment of its capacity, and presumably should be willing to pay a price close to the anticipated RPM price for the capacity.

States may choose to encourage or require such assignments through legislative or regulatory actions. For example, a state could require jurisdictional entities to contract certain quantities of certain types of FRR-RS resources, and provide for cost recovery as needed. The FRR-RS rules would not in any way encourage (or discourage) such state actions.

Q 12: Would states, or LSEs, have to enter into Power Purchase Agreements ("PPAs") to be able to use the FRR-RS option?

No. The agreement between an FRR-RS resource and an LSE need only accomplish an assignment of the FRR-RS resource's UCAP.

Q 13: Would there need to be a connection between FRR-RS capacity assignments and sales of Renewable Energy Credits ("RECs")? Would capacity assignments and REC sales need to be bundled?

No. FRR-RS resources would not be limited to assigning their capacity and RECs to the same entity. States may implement policies that would cause that to occur, but the FRR-RS rules would not in any way encourage (or discourage) such arrangements.

Q 14: Would some states need to pass legislation to be able to take advantage of the FRR-RS option?

Each state has different circumstances, and it is quite possible that there would be barriers to the contracting of FRR-RS resources in some state without changes to existing legislation, or renegotiation of existing contracts with renewable resources. However, LSEs could voluntarily enter in to agreements to accept assignments of FRR-RS capacity, and could potentially reduce their total capacity costs by doing so.

Q 15: How might the results of PJM's current Fuel Security initiative impact the FRR-RS proposal?

PJM's Fuel Security initiative could result in additional constraints imposed on the RPM base residual auction results (similar to the current locational constraints), or adjustments to certain resources UCAP values to reflect fuel [in]security; other outcomes are also possible. Any changes would apply to FRR-RS resources and to the contracting LSEs, analogous to the way locational constraints apply under the existing FRR rules.

Q 16: How might implementation of seasonal capacity procurement impact the FRR-RS proposal?

If PJM implements seasonal capacity procurement in some form (as discussed at a recent technical conference), the changes could have a substantial, positive impact on FRR-RS resources, especially wind and solar resources whose UCAP values are relatively seasonal. The current in-auction aggregation opportunity, which allows seasonal resources to offer into RPM independently, is not available to FRR-RS resources.

Q 17: The discussion of an expanded MOPR has focused on state subsidies. If the MOPR is also extended to resources receiving federal subsidies, what impact would this have on the FRR-RS proposal?

If the MOPR is further expanded, the affected resources should also be allowed to pursue the FRR-RS option.

About the Authors

Rob Gramlich is President of Grid Strategies LLC where he provides analysis, strategic assessment, and communications on wholesale power market and transmission policy. Rob has over 25 years of experience in US electricity markets and policy. Rob has been SVP and Interim CEO of the American Wind Energy Association, Economic Advisor to FERC Chairman Pat Wood III, and Senior Economist of PJM Interconnection LLC. He has testified multiple times before the US Congress, FERC, and state regulatory agencies. He was involved in early formation and market designs of regional transmission organizations. His current work focuses on market design, market rules, and policies for transmission infrastructure development nationally and in the PJM region. His articles can be found at www.gridstrategiesllc.com. He has a BA with honors in economics from Colby College and a M.A. in Public Policy from the University of California at Berkeley.

James F. Wilson is an economist and independent consultant doing business as Wilson Energy Economics. He has thirty-five years of consulting experience in the electric power and natural gas industries. Many of his past assignments have focused on the economic and policy issues arising from the introduction of competition into these industries, including restructuring policies, market design, market analysis and market power. Mr. Wilson has been involved in electricity restructuring and wholesale market design for over twenty years in PJM, New England, Ontario, California, MISO, Russia, and other regions. He has a BA from Oberlin College and M.S. in Engineering-Economic Systems from Stanford University.

With regard to capacity market design, Mr. Wilson has been involved in these issues in PJM, New England, California, the Midwest, and other regions. With respect to PJM's RPM capacity construct, he has prepared numerous affidavits, reports, and analyses of RPM and RPM-related issues, including the minimum offer price rules addressed in this paper. Mr. Wilson participated in the Capacity Construct Public Policy Senior Task Force ("CCPPSTF") stakeholder process that preceded the MOPR Order, and he was also involved in the analogous Integrating Markets and Public Policy ("IMAPP") process in New England.