

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;  
Nora Mead Brownell, Joseph T. Kelliher,  
and Suedeem G. Kelly.

PJM Interconnection, LLC

Docket No. EL03-236-001  
EL03-236-002  
EL03-236-003  
PL04-2-000  
(not  
consolidated)

ORDER ON REHEARING AND COMPLIANCE FILINGS  
AND TERMINATING PROCEEDING

(Issued January 25, 2005)

1. On May 6, 2004, the Commission issued an order establishing a Reliability Compensation Issues policy and ruling on a filing made by PJM Interconnection, LLC (PJM) in Docket No. EL03-236-000.<sup>1</sup> In this order, the Commission rules on rehearing requests of the May 6 Order and on PJM's compliance filings in Docket Nos. EL03-236-002 and EL03-236-003. The Commission also terminates Docket No. PL04-2-000, a general policy proceeding on reliability compensation issues,<sup>2</sup> as the Commission issued its Reliability Compensation Issues policy in Docket No. EL03-236-000. This order benefits the public by helping to implement wholesale electric markets and keep them competitive.

2. Specifically, the rehearing portion of this order clarifies that the May 6 Order does not affect PJM's resource adequacy process. It denies rehearing with regard to the rebuttable presumption of reliability for certain must run generators and the opportunity for certain must run generators to recover at least going forward costs. It finds that

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<sup>1</sup> *PJM Interconnection, L.L.C.*, 107 FERC ¶ 61,112 (2004) (May 6 Order).

<sup>2</sup> Compensation for Generating Units Subject to Local Market Power Mitigation in Bid-Based Markets. Docket No. PL04-2-000.

higher bid caps are just and reasonable in relation to certain must run generators. It grants in part rehearing with respect to the exemption of post-1996 generators from offer capping. Finally, it finds that the issue of requiring PJM to conduct an investigation of scarcity pricing is moot since PJM has completed its investigation and made its report in Docket No. EL03-236-003.

3. The compliance filing portion of this order accepts PJM's proposals concerning alternative compensation for FMUs, retirement of units, and suspension of offer capping with some modifications. It also finds that PJM responded adequately to the Commission's requirement that it conduct an investigation of scarcity pricing.

## **I. BACKGROUND**

4. These proceedings grew out of a complaint filed by Reliant Energy Mid-Atlantic Power Holdings, LLC<sup>3</sup> concerning the compensation of generating units that are required to run for reliability purposes when there are transmission constraints and they are dispatched out of economic merit order.<sup>4</sup> Such units are considered to have market power since they must be dispatched and their price can be greater than the competitive price. In order to mitigate that market power, PJM places offer caps on the bids of these units under the "Must-Run for Reliability Generation" provisions or local market power mitigation rules that are part of its energy market rules.<sup>5</sup> The offers of the Reliability Must Run (RMR) generating units are ordinarily capped at marginal costs plus ten percent. The price the generators actually receive is the greater of the Locational Market Price (LMP) or their mitigated offer.

5. In an order issued July 9, 2003, the Commission denied Reliant's complaint, but required PJM to reexamine its mechanism for providing recovery for RMR units to ensure that PJM was providing appropriate compensation for their services.<sup>6</sup> The Commission directed PJM to make a filing either to revise its tariff or to justify its existing provisions. In addition, the Commission directed PJM to include detailed

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<sup>3</sup> The background of the complaint is given more fully in *Reliant Energy Mid-Atlantic Power Holdings, LLC*, 104 FERC ¶ 61,040 (2003) (*Reliant*).

<sup>4</sup> PJM Operating Agreement (OA), Schedule 1, § 6.4.1; PJM Open Access Transmission Tariff (OATT) § 6.4.1, Appendix to Attachment K.

<sup>5</sup> PJM OA, Schedule 1, § 6; PJM OATT § 6, Appendix to Attachment K.

<sup>6</sup> *Reliant* order, 104 FERC ¶ 61,040 (2003).

analysis of which plants are in fact needed for reliability and should receive some kind of extraordinary payment from load and how units such as Reliant's were operated to support reliability in PJM.

6. The *Reliant* order further noted that PJM should consider in its filing whether its current market design, including its mitigation measures, satisfied the requirement of the Federal Power Act (FPA) that rates must be just and reasonable. In the context of a bid-based market design like that found in PJM (and taking into account all of the elements of that market design, including mitigation), the Commission was particularly interested in whether there were both adequate incentives to attract and retain needed investment as well as rates that were not excessive. The *Reliant* order also directed PJM to include such an analysis in each of its future Annual State of the Market reports.

7. On September 30, 2003, PJM filed amended tariff sheets in compliance with the *Reliant* order pursuant to section 206 in Docket No. EL03-236-000. PJM did not propose to change its offer cap rules and thus maintained its existing compensation for generation units run out of economic merit for reliability purposes when there are transmission constraints. PJM did propose to permit suspension of offer capping under certain conditions. PJM also made several proposals regarding other provisions of its tariff and OATT. It proposed to remove the exemption from offer capping for post-1996 generating units. In addition, PJM proposed a Local Market Auction to address long-term scarcity in load pockets, should such a condition arise in PJM. PJM also proposed that all owners of generation located in the region become members of PJM or otherwise agree to abide by all PJM rules regarding generation and transmission.

8. On December 19, 2003 the Commission issued an order noting that the issue of how to price must-run generating units has arisen not only in PJM but in other regions as well and that these issues are fundamental to the proper and efficient design and operation of electric markets.<sup>7</sup> The Commission directed staff to convene a two-part technical conference.

9. The technical conference was held on February 4 and 5, 2004. The first day of the conference was devoted to Docket No. PL04-2-000 and consisted of a general discussion of the issues with regard to compensation of must run generating units. The second day of the conference was concerned with Docket No. EL03-236-000 and consisted of a

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<sup>7</sup> *Compensation for Generating Units Subject to Local Market Power Mitigation in Bid-Based Markets*, Docket No. PL04-2-000, and *PJM Interconnection, L.L.C.*, Docket No. EL03-236-000, *Order Establishing Technical Conference*, 105 FERC ¶ 61,312 (2003).

discussion of compensation issues for must run generating units in PJM. In Docket No. EL03-236-000, post-technical conference comments were due on February 20, 2004 and reply comments on March 1, 2004. Comments were due in Docket No. PL04-2-000 on or before February 27, 2004.<sup>8</sup>

10. On May 6, 2004, the Commission issued an order in Docket No. EL03-236-000 establishing a Reliability Compensation Issues policy.<sup>9</sup> It also ruled on PJM's September 30, 2003 filing, and, where appropriate, applied the Reliability Compensation Issues policy to PJM's filing.

11. The Commission found in the May 6 Order that PJM's existing offer cap mitigation rules for units that are required to run are just and reasonable for most units. However, it found that they are unjust and unreasonable for units that are offer capped for 80 percent or more of their run hours and are not recovering their costs. The Commission required PJM to provide a process by which such units could recover at least their going forward costs. It also required PJM to adopt a policy concerning the retirement of generating units.

12. In the May 6 Order, the Commission also ruled on PJM's proposals in the September 30, 2003 filing. It accepted PJM's proposal to suspend offer capping when there are not three or fewer jointly pivotal suppliers, subject to PJM's providing additional justification of the standard and clear procedures as to when PJM will apply the standard. It rejected PJM's proposal to remove the existing exemption for post-1996 generating units from the offer capping provisions. The Commission rejected PJM's proposal for a Local Market Auction to address long term scarcity, should it arise, because it lacked sufficient detail. It also rejected PJM's proposal that owners and lessees of generating units become members of PJM or otherwise agree to abide by PJM rules for generation and transmission. The Commission stated PJM could refile this proposal if it could address the applicability and effect of its proposal on existing interconnection agreements, behind-the-meter generating units, and governmental entity generators.

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<sup>8</sup> *Notice on Post-Technical Conference Procedures*, Docket Nos. PL04-2-000 and EL03-236-000 (February 6, 2004).

<sup>9</sup> May 6 Order at P 14-22.

13. Finally, while the Commission did not find that PJM's existing market design is unjust and unreasonable, it did require PJM to consider the use of pricing or mitigation revisions that would recognize operating reserve deficiencies in its market design and to file a report on its investigation of this issue.

## **II. REHEARING REQUESTS OF THE MAY 6 ORDER**

14. The Electricity Consumers Resource Council (ELCON);<sup>10</sup> the Maryland Office of People's Counsel and the Pennsylvania Office of Consumer Advocate (Joint Consumer Advocates); and the Virginia State Corporation Commission (Virginia Commission) filed requests for rehearing. Old Dominion Electric Cooperative (ODEC) filed a request for limited rehearing and a motion for reconsideration. Pepco Holdings, Inc. (Pepco) filed a request for clarification or, in the alternative, rehearing.

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<sup>10</sup> ELCON is a national association representing large industrial consumers of electricity. Member companies as listed on the ELCON website are A.E. Staley Manufacturing Company, Air Liquide, Anheuser-Busch Companies, Inc. BOC Gases, BP, Bunge North America, Chevron North America, Colonial Pipeline Company, DaimlerChrysler, Delphi Automotive Systems, Eastman Chemical Company, E.I. du Pont de Nemours & Co., ExxonMobil, FMC Corporation, Ford Motor Company, General Motors Corporation, Honda, Honeywell Specialty Materials, Intel Corporation, MG Industries, Monsanto Company, Occidental Chemical Corporation, Praxair, Inc., Procter & Gamble Family Care, Shell Oil Products, Smurfit-Stone Container Corporation, Solutia, Inc., and Weyerhaeuser. (List dated 6/29/04; *available at* [www.elcon.org/Membership%20Information/whoweare.htm](http://www.elcon.org/Membership%20Information/whoweare.htm).)

15. The American Public Power Association,<sup>11</sup> the Consumer Federation of America (CFA),<sup>12</sup> the National Rural Electric Cooperative Association (NRECA),<sup>13</sup> the Transmission Access Policy Study Group (TAPS),<sup>14</sup> and the Transmission Dependent Utility Systems (TDU Systems)<sup>15</sup> (collectively, movants) filed a motion to intervene both jointly and severally and a request for rehearing. Movants state they did not intervene earlier because, prior to the issuance of the May 6 Order, they believed that the Commission intended to establish its general policy concerning the pricing of generators in load pockets in Docket No. PL04-2-000, *Compensation for Generating Units Subject to Local Market Power Mitigation in Bid-Based Markets*.<sup>16</sup> Instead, the Commission has announced its Reliability Compensation Issues policy in this docket. Movants ask to be allowed to intervene in this docket so that they may comment on this policy.

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<sup>11</sup> The American Public Power Association represents more than 2,000 not-for-profit, publicly-owned electric utilities, for the most part, cities and municipal governments that own and control the operation of their electric utility systems.

<sup>12</sup> The CFA states it is “uniquely well suited to represent residential consumer interests in this proceeding.” Motion to Intervene and Request for Rehearing at p. 5.

<sup>13</sup> The NRECA represents 930 not-for-profit, member-owned rural electric cooperatives.

<sup>14</sup> TAPS is an informal association of transmission-dependent utilities in more than thirty states and includes Wisconsin Public Power, Inc. (WPPI) as a member. WPPI participated in the discussion and filed comments in Docket No. PL04-2-000.

<sup>15</sup> TDU Systems represents eight transmission dependent rural electric cooperatives and includes ODEC as a member. ODEC is already a party to this proceeding.

<sup>16</sup> The American Public Power Association, ODEC, TDU Systems, and WPPI (a member of TAPS) filed comments in Docket No. PL04-2-000.

16. The Commission will grant the motion to intervene.<sup>17</sup> Given the expanded scope of this proceeding, the Commission finds there is good cause to permit the intervention of these entities.<sup>18</sup> Their intervention will not cause delay or prejudice to other parties.

17. In this order, the Commission will address the requests for rehearing that were filed with respect to PJM's offer capping provisions and its September 30, 2003 filing, including those that involve the application of the Reliability Compensation Issues policy to PJM's Tariff and its proposals. However, the Commission will not address the rehearing requests on the Reliability Compensation Issues policy itself. The Commission has issued its method of analyzing Reliability Compensation Issues as a policy. A policy statement is a tentative agency position, not a final rule of the Commission.<sup>19</sup> The Commission is not bound to follow a policy statement, but may decide on a different course of action in an actual case. The Reliability Compensation Issues policy does not establish any rights in and of itself. In addition, the policy can be challenged when applied in particular cases. Thus, the Commission will address objections to the Reliability Compensation Issues policy as it is applied in particular cases.

**A. PJM's Local Market Power Mitigation Provisions**

18. PJM did not propose to change its offer price cap rules. PJM caps a generating unit's offer price when there are limits on transmission capability and it must dispatch the generation resource out of economic merit order to maintain system reliability.<sup>20</sup> The unit's offer is capped at marginal costs plus ten percent; however, the unit receives the higher of the LMP or its capped offer.

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<sup>17</sup> 18 C.F.R. § 214(d) (2003).

<sup>18</sup> *AEP Power Marketing, Inc.*, 107 FERC ¶ 61,018 at P 29 (2004) (Supply Margin Assessment (SMA) or Market Screens order) (late interventions allowed given expansion of proceeding to address matters beyond the filings of the applicants).

<sup>19</sup> *Interstate Natural Gas Association of America v. FERC*, 285 F.3d 18, 59-61 (D.C. Cir. 2002) (reviewing Order Nos. 637, 637-A, and 637-B and finding, *inter alia*, that the Commission's statements on peak/off peak rates constituted a policy and were not ripe for judicial review).

<sup>20</sup> PJM Interconnection, L.L.C., FERC Electric Tariff, Sixth Revised Volume No. 1, § 6.4.1, Original Sheet No. 401.

19. The Commission found that PJM's current offer capping rules work effectively to mitigate market power in a manner that is fair to most, but not all, generating units.<sup>21</sup> The Commission found that the totality of PJM's market design does not provide FMUS a sufficient opportunity to recover their going forward costs. Although PJM's tariff allows for negotiation between the mitigated generator and PJM, it fails to provide the generator with a clear statement of its rights if an agreement cannot be negotiated. In addition, the Commission found the current tariff does not provide guidance on when a generator may be entitled to a higher bid cap or other type of arrangement.<sup>22</sup> The Commission concluded that PJM's existing provisions for offer-capping are unjust and unreasonable for FMUs because they do not include a specific process for such units to obtain a higher bid cap or other means of ensuring a reasonable opportunity for recovering their costs.<sup>23</sup>

20. The Commission found that additional procedures should be adopted for generators that are offer capped for 80 percent or more of their run hours, are needed for reliability, and are not recovering sufficient revenues to cover their costs. The Commission established a rebuttable presumption that all units offer capped for 80 percent or more of their run hours are needed for reliability. The Commission directed PJM to develop a policy that would provide units that meet these conditions a reasonable opportunity for recovery, at a minimum, of their going forward costs.<sup>24</sup>

21. The Commission also found PJM's current tariff does not provide sufficient ability to resolve disputes relating to compensation for FMUs. The Commission found that this issue should be addressed, at the outset, through bilateral negotiations, as provided in the current tariff. The Commission directed PJM to file any agreements with FMUs with the Commission, along with an explanation of why market design approaches were not sufficient to resolve the problem. The Commission directed PJM to add a new section or

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<sup>21</sup> May 6 Order at P 36.

<sup>22</sup> *Id.* at P 38.

<sup>23</sup> *Id.*

<sup>24</sup> *Id.* at P 40. *See also* P 20 and n.12.



language to section 6.4.2(iii) of PJM's tariff<sup>25</sup> to address situations in which there is a dispute involving the compensation. The Commission required PJM to provide in its tariff that if the parties cannot reach agreement after 60 days, they can bring the dispute to the Commission for resolution.

22. The Commission also directed PJM to develop a policy on retirement of units. A clear retirement policy will provide rules that detail when generators can retire for economic reasons and when generators that would otherwise retire for economic reasons must continue to operate to ensure reliability.<sup>26</sup>

23. The Commission required PJM to submit a revised tariff with alternate compensation for frequently mitigated must run generators and a policy and revised rules on retirement. These filings were due on or before November 2, 2004.

**1. Whether PJM's Existing Local Market Power Mitigation Rules Are Just and Reasonable**

24. The Virginia Commission and Joint Consumer Advocates assert that PJM's existing market mitigation rules are just and reasonable and should not be changed. They state the Commission's assertion that a frequently mitigated generator might not recover its costs is too general and vague to support a finding that PJM's current offer-capping rules are unjust and unreasonable. Moreover, they state FMUs can currently recover their costs because they receive the higher of the LMP or their mitigated bid and often receive prices in excess of their mitigated bid.<sup>27</sup> They state that if a generator cannot recover sufficient revenue to cover its costs under market-based rate authority, there is still no need for higher bid caps or other short-term market design features, because the generator may file for cost-based rates or negotiate a cost-of-service contract with PJM.<sup>28</sup>

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<sup>25</sup> Currently on Substitute Original Sheet No. 402A, PJM Interconnection, L.L. C., FERC Electric Tariff, Sixth Revised Volume No. 1.

<sup>26</sup> *Id.* at P 38.

<sup>27</sup> They state that, according to PJM, there were 792 cases in 2001 in which the price paid an offer capped unit exceeded the offer cap by more than \$500 MWh. May 6 Order at P 28.

<sup>28</sup> The Virginia Commission cites ODEC's argument in the May 6 Order at P 32.

25. The Commission denies rehearing and affirms its finding that PJM's tariff is unjust and unreasonable because its mitigation rules may prevent certain generators needed for reliability from recovering their going forward costs. Under PJM's LMP pricing system, all generators that lack market power have an incentive to submit bids at their marginal costs, because any price above marginal cost will generate sufficient revenue to cover the unit's operating costs and contribute to the recovery of the unit's fixed costs.<sup>29</sup> This is the same incentive that exists in a competitive market, where competitors are expected to produce at the point where prices exceed their short-run marginal costs. When a unit bids above its marginal cost, that is evidence that the unit has some ability to control price, and hence, has market power. This principle has been used by PJM to determine those generators subject to mitigation.

26. Under PJM's tariff, all pre-1996 generating units in load pockets dispatched out of merit (i.e., have bids higher than an available bid outside the load pocket) are mitigated. Moreover, as approved in this order, PJM will relax mitigation when the load pocket can be shown to be sufficiently competitive. Thus, mitigation of units in load pockets is necessary in order to ensure that market power is not exercised. The current mitigation rule in PJM is that units are permitted to bid their marginal cost plus a 10 percent adder, but will receive the market price for energy. This mitigation rule parallels the definition of market power, because it permits the generator to bid no more than it would bid in a competitive market, but receive the market clearing price.

27. This approach to mitigation is reasonable for most generators, i.e., those that are usually dispatched in-merit to provide energy. When these generators bid marginal cost, they will frequently receive higher prices as determined by the bids of less efficient generators.<sup>30</sup> However, application of this rule to frequently mitigated generators needed for reliability will not provide a reasonable opportunity for them to recover their costs. These units are rarely dispatched in-merit for energy and their mitigated bids at marginal or variable cost, when combined with limited hours of operation and the fact that such

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<sup>29</sup> In the case of reasonably efficient generators, the market clearing price will be higher than the generator's bid, which will provide an opportunity for the generator to recover its fixed costs. In addition, generators are compensated for providing capacity through PJM's ICAP mechanism, which can also help to recover fixed costs.

<sup>30</sup> Indeed, as PJM has pointed out, generators can use hockey stick bids to ensure that they receive sufficient revenues.

units are often among the least efficient, will not allow these units to recover their going forward costs.<sup>31</sup> These units, therefore, will set the market clearing price and will not have a reasonable opportunity to receive higher prices as determined by the bids of less efficient generators.<sup>32</sup> Thus, the Commission concludes that restricting mitigated bids to marginal (variable) cost plus ten percent for these units may undermine reliability by causing these frequently mitigated units to retire prematurely and is therefore not just and reasonable.

2. **Whether Market Design Features that Affect Short-term Markets Should Be Used to Compensate RMR Generators in PJM**

28. The Virginia Commission objects to the use of market design features that affect short-term markets to provide compensation for must run generators and asks the Commission not to use the specified short-term market design features to compensate must run generators in PJM. It again asserts there is no need for higher bid caps or other short-term market design features because a generator may file for cost-based rates or negotiate a cost-of-service contract with PJM. The Virginia Commission also states that higher bid caps and other short-term market design features will permit generators in load pockets to exercise market power and collect revenues in excess of just and reasonable rates. It asserts further that the Commission is permitting the exercise of market power as long as the Commission does not consider such exercise to be “unwarranted.”<sup>33</sup> The Virginia Commission also asserts that short-term market design features will not

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<sup>31</sup> Going forward costs are costs that a generator must recover to stay in business for any appreciable period for time, such as fuel and variable costs such as labor, and the avoidable component of annual out-of-pocket direct costs (*e.g.*, direct labor, repair parts, site electric and communications, and property taxes).

<sup>32</sup> Indeed, as PJM has pointed out, other generators can use hockey stick bids to ensure that they receive sufficient revenues, but mitigated units cannot use hockey stick bids.

<sup>33</sup> The Virginia Commission Request for Rehearing at p. 5 citing the May 6 Order at P 19.

encourage investment in load pockets. The Virginia Commission asserts members of the financial community have told the Commission that they seek long-term contracts with firm capacity payments and will not make investments based on high short-term market prices.<sup>34</sup>

29. The Virginia Commission asks the Commission to adopt long-term mechanisms, such as RMR contracts and capacity payment agreements, to compensate must run generators. It asks the Commission to ensure the construction of additional transmission facilities pursuant to PJM's Regional Transmission Expansion Plan (RTEP)<sup>35</sup> to eliminate the transmission constraints that cause PJM's load pockets and thus the need to require generators to run and to adopt special compensation mechanisms for such generators.

30. The Commission denies rehearing. While the Commission agrees that long-term capacity markets may also be necessary, such markets are not a substitute for providing for just and reasonable rates in short-term markets for units that are frequently dispatched to operate in such short-term markets under mitigated rates and cannot recover, through the market, sufficient revenues to cover their costs. As explained in the previous section, the use of going forward costs to compensate FMUs is appropriate since it will allow these units to stay in business. The Commission does not agree that it is condoning the exercise of market power through such rates; it is simply setting a more appropriate bidding cap for units that are frequently mitigated that better reflects their marginal costs. In order for such generator to stay in operation, it needs to receive revenues that go

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<sup>34</sup> The Virginia Commission cites May 6 Order at P 20; remarks of Frank Napolitano, Lehman Brothers, Inc. and Jonathan Baliff, Credit Suisse First Boston Corporation, *Compensation for Generating Units Subject to Local Market Power Mitigation in Bid-Based Markets*, Docket No. PL04-2-000, Technical Conference, Tr. at 8, 38 (Feb. 4, 2004). *See also* further remarks of Frank Napolitano, Lehman Brothers, Inc. and Jonathan Baliff, Credit Suisse First Boston Corporation and remarks of Howard Newman, Warburg Pincus LLC, *Compensation for Generating Units Subject to Local Market Power Mitigation in Bid-Based Markets*, Docket No. PL04-2-000, Technical Conference, Tr. at 7-8, 108-12, and 219-21 (February 4, 2004); Letter Forwarding Power Point Presentations at pages 35-45 (February 19, 2004) (submission of Frank Napolitano at the February 4, 2004 Technical Conference).

<sup>35</sup> PJM Operating Agreement, Schedule 6, PJM Interconnection, L.L.C., Third Revised Rate Schedule FERC No. 24.

beyond covering its short-run marginal costs. Since these units are needed for reliability, a proper market design should provide them with a reasonable opportunity to recover their costs, and the use of going forward costs for mitigation will better achieve that goal than the use of variable costs.

31. The Commission disagrees with the Virginia Commission that RMR contracts or other non-market measures are preferable to the use of market design. Markets should be designed so that as much as possible the market results in efficient prices that send appropriate signals for new entry. RMR or other such contracts are regulatory mechanisms that are not reflected in market prices. Accurate spot market price signals encourage buyers to contract with lower-cost suppliers, including new entrants, since buyers can avoid the spot market price by contracting. By contrast, RMR contracts do not encourage buyers to contract with lower-cost suppliers, because the RMR costs are socialized and recovered through an uplift charge to buyers, and buyers cannot avoid uplift charges through contracting. It is the Commission's policy to create and promote markets for the sale of wholesale electric energy. Enhancing market design, where feasible, is thus more in keeping with that policy than relying on RMR contracts or other agreements whose costs are not reflected in market-clearing prices for a well-defined product. The Commission, therefore, reaffirms its finding that RMR contracts should be used only after market design changes have been implemented and have been unsuccessful because with RMR contracts, market clearing prices do not provide accurate price signals that reflect the cost of reliability. Market clearing prices that reflect such costs better support efficient consumption and investment decisions by market participants than do uplift payments.

### **3. What Evidence and Procedures Should Be Required for a Generator to Receive Alternative Compensation?**

32. If offer-capped generators are to receive extraordinary relief, then the Virginia Commission asserts each unit should be required to prove that it is needed for reliability and that the owner/operator is unable to recover the unit's costs under the existing PJM offer-capping regime.<sup>36</sup> The Virginia Commission and Joint Consumer Advocates

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<sup>36</sup> The Virginia Commission also asserts that owners/operators of units seeking compensation should be required to disclose the profits they are making on other generation units in their PJM generation portfolio to the Market Monitoring Unit (MMU). The Virginia Commission states that if they are earning revenues in excess of costs on their other units, then they should not be permitted to obtain extraordinary pricing relief on their frequently mitigated units, particularly if those mitigated units establish LMP and increase the profitability of the non-mitigated units.

oppose the rebuttable presumption of reliability. They assert there is no record evidence that offer capping a unit 80 percent or more of its run hours shows it is needed for reliability. They state the record indicates there are no areas within PJM where there are reliability issues due to inadequate generation<sup>37</sup> and that PJM had failed to provide a detailed analysis of how units are operated to support reliability.<sup>38</sup> The Virginia Commission states the Commission adopted the rebuttable presumption based solely on a suggestion by Pepco Holdings Inc.<sup>39</sup> that had no factual support and it is thus arbitrary and capricious.<sup>40</sup>

33. The Virginia Commission asks the Commission to vacate the rebuttable presumption and, instead, take evidence on how generation units in PJM are actually operated to support reliability and then develop tariff procedures and standards for generators that are required to run for reliability. In the alternative, the Virginia Commission asks that interested third parties be permitted to participate in the negotiations for alternate compensation and that the generator provide relevant data at the beginning of the negotiation period.

34. Pepco Holdings asks that units offer capped less than 80 percent of their run hours have the opportunity to demonstrate that they should receive alternate compensation and be able to take disputes to the Commission.

35. The Commission denies rehearing concerning the rebuttable presumption of reliability. If PJM mitigates a unit 80 percent of its run time, it means there are transmission constraints so that lower cost units outside of the load pocket cannot be used

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<sup>37</sup> Joint Consumer Advocates cite May 6 Order at P 25 and Declaration of Joseph E. Bowring at 29.

<sup>38</sup> May 6 Order at P 37.

<sup>39</sup> *Id.* at P 39 n.32. See Comments of Pepco Holdings, Inc., Docket Nos. PL04-2-000 and EL02-236-000 at 4-5 (February 20, 2004).

<sup>40</sup> The Virginia Commission cites *Western Resources, Inc. v. FERC*, 9 F.3d 1568, 1572 (D.C. Cir. 1993) (to be upheld, the Commission's decision must be reasoned and based upon the record); *Bowman Transportation v. Arkansas-Best Freight System*, 419 U.S. 281, 285 (1974) (to be upheld on review, the agency must have "articulated a rational connection between the facts found and the choice made"); and *Maryland People's Counsel v. FERC*, 761 F.2d 768, 774 (D.C. Cir. 1985) (to be upheld, FERC's "decision [must be] based on a consideration of the relevant factors.").

to provide power in that load pocket. The mitigated unit, therefore, is needed for reliability because it is the lowest-bid generator whose power is essential to serve demand in the load pocket.

36. Moreover, the record indicates that there were some places in PJM where there were transmission constraints on a more or less permanent basis and that other transmission constraints occur on the transmission system on a random, temporary basis.<sup>41</sup> The record also indicates that there were some generators that were offer capped 80 percent or more of their run hours when there were transmission constraints and they were needed for reliability in PJM. Thus, both logic and the record supports a conclusion that FMUs are needed for reliability.

37. Given this record, to require an administrative inquiry into the extent to which each unit is needed for reliability would be counterproductive. For the same reason, there is little reason to inquire into the actual costs and revenues of frequently mitigated generators. In these cases, the need for reliability and the probability that the generator will not recover its on-going costs is so great that it would be a waste of administrative resources to establish an administrative proceeding for each generator. Moreover, the market design rule limits the bids of these generators to their going forward costs which are legitimate business costs needed for the generator to continue in business. In these circumstances, a standard market design applicable to these units is preferable to requiring administrative inquiries, or rate case filings, before the generator is eligible for greater compensation. PJM itself supports the use of a specific level, because it provides definitional clarity and administrative simplicity. Indeed, based on the record developed so far, only fifteen units qualify for the higher bid cap.<sup>42</sup>

38. However, the Commission does agree that with respect to units that are less frequently mitigated, it is not as clear that the unit will be unable to recover its legitimate costs through market prices because they are obtaining significant contributions to their fixed costs through market based sales of a sizable portion of their energy. And, the review of offer-capping statistics provided by the PJM MMU suggests that below the 80 percent level, the number of offer capped units begins to increase. Thus, the Commission finds that it is reasonable not to include units mitigated less than 80 percent of the time as qualifying for the automatic application of higher bid caps.

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<sup>41</sup> See Comments of PJM Interconnection, L.L.C., Docket No. EL03-236-000 (February 20, 2004).

<sup>42</sup> Tables 2-9, 2-10, and 2-11 in the *PJM 2003 State of the Market Report*, page 52.

39. But the Commission agrees with Pepco that units mitigated less than 80 percent of the time should also have an opportunity to demonstrate that they require alternate compensation. The Commission has provided that generators who do not meet the test can seek alternative offer caps, either from PJM or through an appeal to the Commission. This policy is neither discriminatory nor arbitrary.<sup>43</sup> Units that are offer capped less than 80 percent of their run hours may seek to negotiate an agreement for alternative compensation with PJM under section 6.4.2 of Attachment K—Appendix of its tariff.<sup>44</sup> In the May 6 Order, the Commission found that if the negotiations are unsuccessful, the unresolved issues should be brought to the Commission for resolution after 60 days from the commencement of negotiations.<sup>45</sup> This requirement applies to any agreement negotiated under section 6.4.2 including those for units offer capped less than 80 percent of their run hours.

40. With regard to the negotiations for alternative compensation, the Commission finds that the generator should provide relevant cost and revenue data at the beginning of the negotiation period. Requiring the unit to provide relevant cost, revenue, and other data at the beginning of the negotiating period will make the negotiations more productive and will assist in meeting the 60-day deadline. The Commission denies rehearing with regard to third party participation in negotiations between PJM and a unit. The Commission finds it is sufficient that a third party may bring a complaint before the Commission if it is dissatisfied with the results of the negotiation.

**B. Whether Units Constructed After July 9, 1996 Should Be Exempt from PJM's Existing Market Power Mitigation Rules**

41. Units constructed after July 9, 1996 are currently not subject to the PJM local market power mitigation rules which require offer capping when there is a transmission constraint and a unit must run for reliability. In its September 30, 2003 filing, PJM proposed to eliminate the exemption from the offer cap rules for generating units for which construction commenced on or after July 9, 1996 (post-1996 units).<sup>46</sup> It stated

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<sup>43</sup> Proposed section 6.4.2(a)(iv) allows generators to negotiate alternative offer caps or amounts with PJM, and if agreement is not reached after 60 days, can submit the rates, terms, and conditions to the Commission for resolution.

<sup>44</sup> Sheet No. 402A.

<sup>45</sup> May 6 Order at P 41.

<sup>46</sup> PJM OA, Schedule 1, § 6.1, First Revised Sheet No. 129; PJM OATT, § 6.1, First Revised Sheet No. 399, App. K.



there were post-1996 units in load pockets in PJM that had the ability and the incentive to exercise local market power and that it wanted to address the local market power of these and future units before it became a significant issue. PJM noted that other markets do not exempt new generators from offer price capping.<sup>47</sup> PJM stated that the Commission exempted new generators built after July 9, 1996 from having to demonstrate a lack of market power in order to receive market based rate authority, but did not exempt them as of that date from market mitigation measures. Last, PJM stated that the exemption was not necessary to encourage entry of new generators because it was proposing a local market auction where scarcity exists within subregions.<sup>48</sup> PJM recognized that units for which construction commenced after July 9, 1996 and before September 30, 2003, may have relied on the exemption, and proposed to provide them with their own offer price cap consisting of “a negotiated amount that reflects the level that reasonably could be expected to be offered by the generating unit under competitive conditions.”<sup>49</sup>

42. The Commission rejected PJM’s proposed termination of the exemption for post-1996 units. It indicated that PJM must present evidence of the exercise of market power to terminate the exemption. It found that PJM’s evidence of a single unit on the Delmarva Peninsula and potential for the exercise of market power in the future was not sufficient to show that any post-1996 units have been exercising market power. The Commission was also concerned about equity issues associated with changing the rules for the units that were built with the expectation that they would not be offer-capped. It stated that removal of the exemption would likely result in lowered revenues and valuation for the units and could also create further regulatory uncertainty that could discourage future investment.

43. The Commission stated it would consider specific evidence presented by the MMU or others that a particular generation unit possesses market power on a case-by-case basis. The Commission stated that the complaining party must make a specific

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<sup>47</sup> *Citing Reliant Energy Mid-Atlantic Power Holdings, LLC*, 104 FERC ¶ 61,040 at P 31 (2003).

<sup>48</sup> In the May 6 Order (P 73-74), the Commission stated it was open to a last resort auction to address long-term reliability problems but rejected PJM’s proposal because it lacked sufficient detail. At this point, it appears that PJM may propose a longer term locational install capacity market which could supercede the Local Market Auction.

<sup>49</sup> PJM Operating Agreement, Schedule 1, § 6.1, First Revised Sheet No. 131; PJM Tariff, First Revised Sheet No. 402A, App. K.

showing that the unit has the potential to exercise market power and must propose specific mitigation and whether there are other remedies, such as transmission, for the problem.

### 1. Rehearing Requests

44. Joint Consumer Advocates, ELCON, ODEC, and the Virginia Commission ask the Commission to grant rehearing of its decision to retain the exemption for post-1996 units from PJM's market power mitigation rules.

45. ELCON and the Virginia Commission assert all generators should be subject to the same market power and market mitigation standards regardless of when they were built. ELCON states market power is not being exercised in PJM only because generators are subject to mitigation. ELCON urges there is no basis for assuming that a new generator cannot exercise market power and argues that a new generator can have the same market power in a load pocket that existing generators possess, especially since most new generation that has emerged post-1996 is affiliated with utilities.

46. ELCON asserts it is arbitrary and capricious to exempt post-1996 units from market power mitigation given that PJM's Market Monitor testified that some post-1996 units were in a position to exercise market power.<sup>50</sup> ODEC asserts the Commission recognized that the PJM Market Monitor has expressed concerns that post-1996 units may be able to exercise market power.<sup>51</sup>

47. Joint Consumer Advocates assert the Commission's reasons for rejecting PJM's proposal, that there was no evidence of the exercise of market power and that the post-1996 units were built with the expectation that they will not be offer capped, are invalid. They assert that requiring specific evidence of the exercise of market power is not necessary. They contend that the incentives and opportunity for owners of units to exert market power are the same whether the unit was built before or after 1996, so that the reasons for having offer capping apply equally to units built before or after 1996.

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<sup>50</sup> ELCON cites September 30, 2003 Filing at 22-25, PJM Interconnection, L.L.C.; Answer of PJM Interconnection, L.L.C., at p. 19 (Nov. 19, 2003); Prepared Testimony of Joseph E. Bowring on behalf of PJM Interconnection, L.L.C., Docket No. PA03-12-000 at 24-25 (July 30, 2003).

<sup>51</sup> ODEC cites May 6 Order at P 56.

Moreover, they assert that requiring specific evidence of the exertion of market power frustrates the purpose of offer capping (to assure that prices are not raised above competitive levels) and permits only after-the-fact remedies which are very hard to provide.

48. ODEC and the Virginia Commission assert there are material Reliability Compensation Issues in PJM,<sup>52</sup> particularly in the Delmarva Peninsula. They assert that generators in Delmarva Peninsula, a well-known load pocket, may be able to exercise market power and that the Commission recognized that there is one post-1996 unit on the Delmarva Peninsula that may exercise market power.<sup>53</sup> They assert that market power in the Delmarva Peninsula has been an issue for some time and that the Commission has a record and recommendations in Docket No. PA03-12-000 concerning the need to investigate the exercise of market power in this load pocket.<sup>54</sup> They ask the Commission to conduct an investigation through its Office of Market Oversight and Investigations (OMOI) into the potential exercise of generation market power on the Delmarva Peninsula.

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<sup>52</sup> The Virginia Commission states PJM's MMU identified eight sub-regions within the PJM footprint that showed high local market concentration and frequent congestion in 2002 or 2003. *2003 State of the Market, Report of the PJM Market Monitoring Unit* at 42-3 (Mar. 5, 2003). The Virginia Commission states PJM's MMU used the Herfindahl-Hirschman Index (HHI), defining high market concentration at 1800 or above, the equivalent of five to six companies with equal shares in the market. *Id.* At 40. During constrained times, the Virginia Commission states, the Report shows the average HHI in seven of the regions was over 4,000, and in four regions, the maximum HHI was 10,000 during times of congestion.

<sup>53</sup> May 6 Order at P 54.

<sup>54</sup> ODEC cites Ex. ODC-2, Summary of Recommendations to Better Manage Congestion Costs of Old Dominion Electric Cooperative at 2 (July 30, 2003) (studies should be done using confidential PJM data of the extent and causes of congestion in the DPL Zone); Comments of Virginia Commission at 5-9 (Oct. 27, 2003) (investigation needed of market power on Delmarva Peninsula using all relevant data, under confidentiality provision if necessary).

The Virginia Commission cites the Report of the Virginia State Corporation Commission, Docket No. PA03-12-000 (Aug. 11, 2003).

49. Rehearing requesters assert it is the responsibility of the Commission and the PJM MMU to show the existence of and mitigate local market power and not that of load serving entities (LSEs). ODEC and the Virginia Commission assert LSEs and other customers do not have access to the information needed to show that a generator is exercising market power. ODEC states that it was unable to obtain generator data to prove the exercise of local market power in the Delmarva Peninsula in Docket No. PA03-12-000 because of claims of confidentiality and privilege.<sup>55</sup>

50. ELCON also asserts Order No. 888 did not exempt new generators from mitigation. It asserts Order No. 888 established July 9, 1996 as the date after which new generators would no longer have to demonstrate a lack of market power in order to receive market-based rate authority. But, ELCON asserts, the Commission has recognized that a new generator may have market power and has stated that it will consider evidence of market power even if the unit is constructed after 1996<sup>56</sup> and mitigate a unit if it is shown to have market power.

51. Joint Consumers Advocates assert that the expectation of post-1996 units that they will not be mitigated when they exercise market power is unreasonable. They assert the Commission must frustrate this expectation to assure just and reasonable prices under

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<sup>55</sup> In Docket No. PA03-12-000, see Ex. ODC-2, Summary of Recommendations to Better Manage Congestion Costs of Old Dominion Electric Cooperative at 2 (July 30, 2003) (studies should be done using confidential PJM data of the extent and causes of congestion in the DPL Zone); Comments of Virginia Commission at 5-9 (Oct. 27, 2003) (investigation needed of market power on Delmarva Peninsula using all relevant data, under confidentiality provision if necessary).

<sup>56</sup> ELCON cites *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, 61 Fed. Reg. 21,540 (May 10, 1996), FERC Stats. & Regs. ¶ 31,036 at 31,659 (1996), order on reh'g, Order No. 888-A, 62 Fed. Reg. 12,274 (Mar. 14, 1997), FERC Stats. & Regs. ¶ 31,048 (1997), order on reh'g, Order No. 888-B, 81 FERC ¶ 61,248 (1997); order on reh'g, Order No. 888-C, 82 FERC ¶ 61,046 (1998), aff'd in relevant part sub nom., *Transmission Access Policy Study Group, et al. v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), aff'd sub nom. *New York v. FERC*, 535 U.S. 1 (2002).

ELCON also cites *AEP Power Marketing, Inc.*, 107 FERC ¶ 61,018 at n.59 (2004) (Supply Margin Assessment (SMA) order) and *Delta Energy Center, LLC*, 98 FERC ¶ 61,124 at p. 61,373 (2002).

section 205 of the FPA. In addition, they assert that once PJM made its September 30, 2003 filing to eliminate the exemption, there was no longer a basis for a unit to have an expectation that it would not be offer capped. Joint Consumer Advocates assert that concerns regarding generator expectations can only apply to units built between 1996 and 2003 and that units built after 2003 should be subject to offer capping.

52. The rehearing requesters ask the Commission to accept PJM's proposals to eliminate the exemption of units constructed after 1996 and provide a negotiated offer cap for generating units built between July 9, 1996 and September 30, 2003.

## 2. Commission Decision

53. The Commission grants rehearing on this issue as follows. It agrees with PJM that it is just and reasonable to remove the blanket exemption for post-1996 units. However, the Commission recognizes that some units may have been built in reliance on the exemption and has found that reliance on the exemption raises equitable concerns.<sup>57</sup> Consequently, the Commission will grandfather units that relied on the exemption, as discussed below, and they will remain exempt from the offer capping provisions unless PJM can demonstrate that these units exercise market power.

54. Generating units constructed after July 9, 1996 are currently not subject to PJM's local market power mitigation (also known as offer capping) rules.<sup>58</sup> As previously discussed, offer capping applies when there is a transmission constraint and PJM must dispatch a unit out of merit order for reliability reasons. Thus, offer capped units operate in load pockets and the offer capping rules mitigate local market power in load pockets when transmission constraints arise.

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<sup>57</sup> May 6 Order at P 55.

<sup>58</sup> The offer capping rules do not apply to any units for which construction commenced on or after July 9, 1996. Section 6.1, Attachment K—Appendix, Third Revised Sheet No. 399, PJM Interconnection, L.L.C., FERC Electric Tariff, Sixth Revised Volume No. 1.

55. The Commission approved the exemption for post-1996 units effective April 1, 1999, in an order concerning PJM's market structure and market-based bids for PJM utilities. The Commission's discussion of this issue stated:

The argument for exempting new generation from price cap regulation is that, while entry will eliminate opportunities for locational market power, price cap regulation may deter some potential entry. We agree, and therefore approve the amended filing [which exempted units constructed after July 9, 1996].<sup>59</sup>

56. At the same time, the Commission relied on price or offer capping by PJM to mitigate market power at each of PJM's 1,600 nodes.<sup>60</sup>

57. The exemption from offer capping for post-1996 units in PJM applies whether or not a unit is affiliated with other units at a node. Thus, a post-1996 unit in a load pocket with market-based rate authority, whether independent or affiliated with other generators, will not be offer capped.

58. The Commission agrees that the exemption of post-1996 units from PJM's local market power mitigation rules should be removed. The Commission initially approved the post-1996 exemption based solely on a concern that the mitigation rules might impede entry. The Commission here reconsiders that conclusion. The fact that a generator is dispatched out of economic merit order due to transmission constraints means that there are few competitive options and the market is unlikely to be competitive. Under these conditions, it is reasonable that the same rules should be applied to all the units in the load pocket regardless of when they are constructed. As old units are retired and new units are built, the exemption for post-1996 units will erode PJM's ability to use offer capping to deal with local market power in load pockets. Over time, PJM will be less and less able to address the potential for market power promptly. Thus, the exemption should be removed to ensure competitive prices and markets within PJM.

59. In addition, the exemption for post-1996 units is unduly discriminatory. It creates two groups of must run generators, one of which is offer capped and one of which is not. But generators constructed after July 9, 1996 have the same ability as generators constructed earlier to exercise market power when they are dispatched out of economic

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<sup>59</sup> *Atlantic City Electric Co.*, 86 FERC ¶ 61,248 at 61,904 and 61,906 (March 10, 1999). The exemption became effective on April 1, 1999.

<sup>60</sup> *Id.* at 61,904.

merit order for reliability reasons. The two groups of generators are similarly situated (with one exception discussed below)<sup>61</sup> and permitting post-1996 generators that are dispatched out of economic merit order to be exempt from offer capping is unduly discriminatory. All other RTOs/ISOs apply local market mitigation rules to all generators within their areas and none have an exemption from those rules for post-1996 units. Other RTOs/ISOs are thus in a position to address local market power as and when it arises. Comparable authority for PJM would better allow it to address local market power, regardless of the date of construction of the units involved, just like the other RTOs/ISOs.

60. However, the Commission, as well as PJM, recognizes that some units were constructed based on the blanket exemption from mitigation in PJM's tariff. Thus, investors could reasonably have relied on the exemption after it went into effect in their zone. The Commission finds that this reliance interest needs to be taken into account and these units will retain their exemption from mitigation. They will, however, still be subject to mitigation in the event that PJM or its market monitor concludes that these units exercise significant market power. Before imposing mitigation on these units, PJM or its market monitor must make a section 205 filing with the Commission documenting the exercise of market power. The Commission established market monitors precisely to provide ongoing, real time monitoring to reveal cases in which market power is exercised, and it should not be an undue burden on PJM, or any participant, for them to provide evidence that such a unit is exercising significant market power prior to imposing mitigation.

61. For these reasons, the Commission grants rehearing. It finds that the exemption for post-1996 units from the offer capping rules is unjust and unreasonable under section 206 of the Federal Power Act and that the just and reasonable practice under section 206 is to terminate the exemption, with provisions to grandfather units for which construction commenced in reliance on the exemption. The Commission requires PJM to revise its Tariff and Operating Agreement by removing the exemption for post-1996 units and grandfathering the units specified below.

62. The units that are grandfathered are units for which construction commenced in reliance on the exemption. The exemption will not apply to any unit in any PJM zone for which construction commenced after PJM submitted its proposal to remove the post-1996 exemption on September 30, 2003. For the original PJM zones, units could only have

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<sup>61</sup> The possible reliance interest of the post-1996 generators is addressed through grandfathering units that may have relied on the exemption.

been built in reliance on the exemption beginning on April 1, 1999.<sup>62</sup> For zones subsequently joining PJM, units could only have been built in reliance on the exemption once the zone was approved for integration into PJM. For Rockland Electric Company construction on exempt units could only have commenced after December 21, 2001.<sup>63</sup> For Allegheny Power, construction on exempt units could only have commenced after March 1, 2002.<sup>64</sup> Since Commonwealth Edison, American Electric Power, Dayton Power and Light, and Duquesne Light were integrated into PJM after September 30, 2003, units within these areas are not exempt from mitigation.

**C. Whether a Local Market Auction Should Only Be a Last Resort and Who Should Pay for the Resulting Upgrade**

63. PJM proposed to hold a local market auction to address long term scarcity, should it arise. PJM would take bids from generators in the auction and then choose the least cost solution from among generation, transmission, and demand response options. The winner of the auction would enter into a long-term contract and would receive some form of fixed payment such as a capacity adder. PJM would execute the contract on behalf of the LSEs in the affected locality.

64. The Commission found PJM did not show that its local market auction proposal was just and reasonable because it lacked sufficient detail. In addition, the Commission stated that RTO resource procurement, whether long-term contracts or direct procurement

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<sup>62</sup> The original PJM and, thus the original PJM zones, consisted of Atlantic City Electric Company; Baltimore Gas and Electric Company; Delmarva Power & Light Company; GPU, Inc. (Jersey Central Power & Light Company); Metropolitan Edison Company; PECO Energy Company; Pennsylvania Electric Company; Pennsylvania Power & Light Company; Potomac Electric Power Company; and Public Service Electric and Gas. 81 FERC ¶ 61,257 at n.2 (1997). Thus units in these zones could have relied on the exemption beginning when it went into effect on April 1, 1999.

<sup>63</sup> *Rockland Electric Company and PJM Interconnection, L.L.C.*, 97 FERC ¶ 61,357 (2001). The parties had requested an effective date of November 30, 2001, (Letter of October 19, 2001, Docket Nos. EC02-7-000 and ER02-109-000) but the Commission's order accepting Rockland's application to join PJM did not issue until December 21, 2001 (97 FERC ¶ 61,357 (2001)), so that, as a practical matter, reliance on the exemption could not occur until after December 21, 2001 in the Rockland zone.

<sup>64</sup> *PJM Interconnection, L.L.C.; Allegheny Power*, 98 FERC ¶ 61,072, Ordering Paragraphs A and B (January 30, 2002).



of generation, should only be used as a backstop mechanism when no reasonable market design improvements can bring about investment in the generation that is needed in load pockets. The Commission stated, however, that it is open to the use of an auction to address a long-term reliability problem within PJM with an upgrade to transmission infrastructure as the default solution.

65. The Commission stated PJM could refile its auction proposal. The Commission stated a new local market auction proposal should have the following features: (1) transmission as a default solution; (2) PJM as the entity that identifies capacity problems; (3) a multi-year planning horizon, for example, three years; (4) PJM as arranger of the auction as a facilitator for load and generating units; and (5) costs resulting from the auction allocated on a subzone level to the load responsible for the problem. The Commission asked commenters to address the issue of when an auction should be held—when PJM thinks it is necessary or when PJM is requested to hold the auction by load. The Commission also stated that ideally a new PJM local market auction proposal would be developed in conjunction with the PJM's RTEP.

### **1. Rehearing Requests**

66. ODEC asks the Commission not to consider a local market auction only as a last resort solution to reliability problems. ODEC asserts a local market auction is helpful in resolving the short-term local transmission reliability problems in load pockets that are due to the transition from vertically-integrated monopolies to unbundled transmission and in addressing transmission reliability problems generally. ODEC also asserts there should be no connection between the local market process and the economic portion of the PJMRTEP. ODEC asserts the local market auction is a response to local scarcity which is manifested as a violation of transmission reliability criteria established by the Regional Reliability Council and PJM, while the RTEP process, in contrast, is concerned with market-driven, economic expansion.

67. The Virginia Commission asks rehearing of the Commission's determination that the costs of a local market auction to address a long-term reliability problem should be allocated at a subzone level to the load responsible for the problem.<sup>65</sup> The Virginia Commission asserts that reliability problems in load pockets were not created by load, but by the former vertically integrated utilities. The Virginia Commission urges that there are equitable considerations relating to consumers in load pockets just as much as there are equitable considerations relating to post-1996 units generators. The Virginia Commission asserts retail electric customers in load pockets expected to have rates based

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<sup>65</sup> May 6 Order at P 74.

on average cost ratemaking for many years and had no idea they would be subjected to a new deregulated regime under which they would have to pay LMP and be responsible for infrastructure to correct reliability problems that result from the transition to the new regime. The Virginia Commission asserts these equitable considerations support spreading the costs of infrastructure needed for reliability in load pockets over a broader class of ratepayers. The Virginia Commission urges that uplifting<sup>66</sup> of the costs for one-time projects to diminish generation market power in a load pocket is the most equitable and politically practicable solution to reliability problems in load pockets when a local market auction is used.<sup>67</sup>

68. The Virginia Commission asks the Commission to vacate its direction to PJM as to how the costs of infrastructure improvements resulting from any future auction proceeding should be allocated. It asks the Commission to leave PJM and its stakeholders free to work out these issues in the collaborative process used to develop any future auction proposal.

## **2. Commission Decision**

69. There is no current PJM proposal before the Commission concerning a local market auction, so the Commission will not rule on the rehearing request as to when such a proposal would be acceptable. If PJM makes a proposal for a local market auction, the Commission will consider this issue in the context of PJM's proposal. The facts and circumstances surrounding such a proposal may or may not warrant accepting it.

### **D. Whether PJM Must Consider Scarcity Pricing**

70. In the May 6 Order, the Commission stated “we do not believe that the record of this proceeding shows that the existing PJM market design is not just and reasonable.”<sup>68</sup> Nonetheless, the Commission required PJM to consider the use of pricing that would

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<sup>66</sup> The Virginia Commission defines “uplift” as the averaging of the costs of infrastructure improvements across a broad class of ratepayers. Virginia Commission Request for Rehearing at 18.

<sup>67</sup> The Virginia Commission cites *New England Power Pool and ISO New England, Inc.*, 101 FERC ¶ 61,344 at P 36 (2003) (addressing congestion in Southwest Connecticut); *ISO New England, Inc.*, 98 FERC ¶ 61,173 at P 60-62 (2002) (addressing congestion in Northeastern Massachusetts).

<sup>68</sup> May 6 Order at P 82.

recognize operating reserve deficiencies in its market design. and to file a report on its investigation of this issue within 180 days.<sup>69</sup> This type of pricing is often referred to as scarcity pricing. The Commission's concern was that PJM's current tariff provisions may not be the most appropriate mechanisms for providing cost recovery for RMR units in load pockets. The Commission reasoned that scarcity pricing might reduce the need for unit-specific RMR agreements in situations where units needed for reliability are not recovering their costs, and thus, directed PJM to analyze the policy further.

71. The Virginia Commission asserts PJM should not be required to consider making a pricing proposal reflecting shortages of operating reserves because there is no finding that PJM's market is unjust and unreasonable. It also asserts that in these circumstances, requiring PJM to make such an investigation is a waste of PJM's and stakeholders' resources.<sup>70</sup> The Virginia Commission states that allowing pricing of operating reserves in load pockets to reflect "real-time shortages," without substantial mitigation, could result in very high spot market prices, but that these prices will not act as price signals and induce new generators to locate in load pockets because, as stated elsewhere, the Wall Street representatives made it clear that price volatility alone will not call forth substantial generation investment and that what is needed are long-term contracts and/or reliable revenue streams.<sup>71</sup> The Virginia Commission asserts that unless levying high prices for operating reserves in load pockets in times of deficiencies would, in fact, call forth new generation investment that would decrease generation market power in load pockets, it is inappropriate to consider requiring end users in load pockets to pay such high prices.

72. The Virginia Commission asks the Commission to grant rehearing on this issue and vacate its instruction to PJM to convene a 180-day process to consider revising its market design to include pricing reflecting real-time shortages of operating reserves.

73. The Commission denies rehearing. The Commission asked only that PJM consider whether scarcity pricing needed to be implemented, and made no determination on this issue. The question of whether an appropriate market design should include

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<sup>69</sup> May 6 Order, Ordering Paragraph G.

<sup>70</sup> The Virginia Commission asserts that, instead, PJM should be required to supplement the portions of the record in this proceeding that the Commission found deficient, such as providing the detailed analysis of how generation units in PJM are operated to support reliability. 107 FERC ¶ 61,112 at P 37.

<sup>71</sup> May 6 Order at P 20.

scarcity pricing when reserves are short is a legitimate issue; indeed other RTOs/ISOs include such provisions.<sup>72</sup> Thus, there is a reasonable basis for the Commission to require PJM to provide information on this issue and no party's interest was affected by the Commission's requirement that PJM merely submit a report. The Commission rules on PJM's report below, and these parties can seek rehearing of that determination.

**E. Whether the May 6 Order Affects PJM's Resource Adequacy Process**

74. The May 6 Order found there are few material short term or long term Reliability Compensation Issues in PJM.<sup>73</sup> With regard to reliability problems that do exist in load pockets, it relied on the use of market design features<sup>74</sup> that increase short-term energy prices to resolve problems of compensation for generators that must run.<sup>75</sup> It indicated a preference for such market design features because, among other things, they result in

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<sup>72</sup> MISO; New York Independent System Operator (NY-ISO); and ISO-New England (ISO-NE) have scarcity pricing provisions. For MISO, *see* 108 FERC ¶ 61,163 at P 382-86 (2004). For NY-ISO, *see* 103 FERC ¶ 61,339 (2003) and 106 FERC ¶ 61,111 (2004). For ISO-NE, *see* 104 FERC ¶ 61,130 (2003).

<sup>73</sup> May 6 Order at P 23.

<sup>74</sup> In its RCI policy and in its rulings with respect to PJM, the Commission relied on the following market design features to compensate generators that must run for reliability:

[L]ocational changes [*sic*] such as locational installed capacity, locational operating reserves, locational pricing for energy in times of local operating reserves scarcity; higher bid caps or relaxed mitigation for otherwise mitigated units needed for reliability (increased reference prices; proxy unit based approaches; increased offer caps in unit-based cost capping regimes); or other approaches that are designed to solve the Reliability Compensation Issues while also taking into account appropriate protections against the unwarranted exercise of market power.

May 6 Order at P 19.

<sup>75</sup> May 6 Order at P 40.

more accurate prices that value an additional megawatt of power or demand response. Such prices better support efficient investment decisions. The May 6 Order also states that PJM may only use a local market auction as a last resort to resolve long-term reliability problems within PJM.<sup>76</sup>

75. ODEC asks the Commission to clarify that the Commission's emphasis on the short-term market design features specified in the Reliability Compensation Issues policy will not affect PJM's efforts to develop resource adequacy requirements and will not disrupt PJM stakeholder processes addressing resource adequacy. They state that PJM's resource adequacy process is intended to develop a new construct that will address the capacity market, the need, if any, for locational capacity requirements, and the impact of generation retirements on long-term regional resource adequacy.

76. The Commission clarifies that its Reliability Compensation Issues policy is not intended to disrupt any stakeholder process addressing resource adequacy. Instead, the Commission's Reliability Compensation Issues policy is intended to address the compensation of generators that are required to run for reliability, rather than long term investment. The Commission has addressed resource adequacy in other issuances such as white papers<sup>77</sup> and continues to address resource adequacy in filings by Regional Transmission Organizations and Independent System Operators. The Commission encourages stakeholder efforts that address resource adequacy. The Commission will rule on any proposals that result from such processes as it receives them.

### **III. Compliance Filing, Docket No. EL03-236-002**

77. In the May 6 Order, the Commission accepted, with modifications, PJM's proposal to add a new provision to the PJM market rules (section 6.4.1(e)) to allow suspension of offer caps when competitive conditions exist in a load pocket. The May 6 Order directed PJM to submit a compliance filing that would "(a) provide additional justification of PJM's proposed jointly pivotal competitiveness standard, and (b) revise the proposed tariff language to include clear procedures establishing when PJM will apply the standard."<sup>78</sup>

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<sup>76</sup> *Id.* at P 74.

<sup>77</sup> *See*, for example, FERC Staff Paper on Regional Choices for Implementing the Elements of the White Paper [of April 28, 2003], (July 7, 2003) at pp. 23-25.

<sup>78</sup> May 6 Order at P 48.

78. In response to the May 6 Order, PJM's July 16, 2004 compliance filing proposes additional revisions to section 6.4.1(e) of the PJM market rules. The revisions retain the no-three pivotal suppliers test (e.g., four or more jointly pivotal suppliers are considered competitive as are zero pivotal suppliers) that was contained in the September 30, 2003 filing. The proposed revision establishes the no-three pivotal suppliers test as a clearly stated trigger for suspension of offer caps. The MMU will not have discretion to impose offer capping in load pockets that pass the no-three pivotal suppliers test. Nevertheless, the MMU will have the ability to propose the re-imposition of offer capping to the Commission if it determines that a reasonable level of competition will not exist in a load pocket. The Commission would retain the authority to re-impose offer capping.

79. Dr. Joseph Bowring, the PJM Market Monitor, filed a declaration in support of the revisions that was attached to the Compliance filing. In his declaration, Dr. Bowring provided the additional justification for the competitiveness test directed in the May 6 Order. Dr. Bowring's declaration contains an analysis of alternative measures of competitiveness, and supports the no-three pivotal suppliers test because it "addresses the tradeoff between the risk of the exercise of market power versus the risk that the rule restricts competitive behavior."<sup>79</sup> The use of such a test "inform decisions about divestiture by an owner of multiple units within a load pocket, about the purchase of existing units within a load pocket or about the construction of a new unit in a load pocket." Dr. Bowring also states that absence of such an explicit test has had little current significance as a result of the actual ownership pattern of PJM units.<sup>80</sup> Dr. Bowring states that PJM proposes to apply the test whenever the offer capping rule would otherwise be applied, and this dynamic application will be incorporated into its operational dispatch software. Nevertheless, due to the significant modifications required by this proposal, the changes will take approximately 12 months to implement, and the target date for implementation is September 2005.

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<sup>79</sup> July 16, 2004 PJM filing, Declaration of Joseph E. Bowring at P 20.

<sup>80</sup> Dr. Bowring states that there are no cases that the PJM MMU has identified where the actual ownership of units is diverse enough to eliminate concerns about the exercise of local market power. Declaration of Joseph E. Bowring at P 2.

**A. Protests and Comments**

80. Three parties (EPSA, Reliant Energy, and the Joint Consumer Advocates) protested the compliance filing, and one party filed comments in support. Protests from EPSA and Reliant Energy argue that the proposed no-three pivotal suppliers rule is not just and reasonable because the test is too stringent, and that the test will never be exceeded in practice. EPSA is concerned that implementation of the rule will perpetuate the designation of all load pockets as non-competitive. In support of their concerns, EPSA attached an affidavit that shows that the PJM proposal requires an unreasonable number of suppliers in any load pocket in order to pass the proposed test, and such a regime will hinder market development and discourage market entry in those areas most in need of additional generation capacity. EPSA argues that PJM should rely instead on the market screens included in the *AEP Power Marketing Inc., et al.* order.<sup>81</sup> Reliant Energy raises similar concerns, and argues that the test designates local market power where it does not exist and creates unreasonable barriers to entry and exit. Reliant Energy illustrates through several examples that passage of the no-three pivotal suppliers test would necessitate a level of divestiture that is unreasonable. Reliant Energy also argues that the test was not consistent with the AEP market screens, and recommends an alternative screen based on the existence of three unaffiliated resources, with capacity available, whose bids can solve local congestion and no one bidder is essential to solving the congestion.

81. The protest from the Joint Consumer Advocates takes the opposite perspective and states that the no-three pivotal suppliers standard is not stringent enough. The Joint Consumer Advocates assert that the proposed mechanism does not adequately protect consumers from the exercise of local market power, and that the test relies on an insufficient number of suppliers to determine whether mitigation measures should be automatically suspended. In particular, the Joint Consumer Advocates are concerned with the proposed provisions that allow PJM to make a filing with the Commission to reinstate mitigation after the MMU determines that the market is not sufficiently competitive. The Joint Consumer Advocates argue that in PJM the filing will likely be contested, and consumers are vulnerable to the potential for the exercise of market power while any litigation before the Commission is completed. The Joint Consumer Advocates also request that transactions occurring at PJM's three major reactive interfaces not be exempted from the automatic no-three pivotal suppliers test. Since competitiveness will be tested on an hour-by-hour basis with the new test, the Joint Consumer Advocates argue that the market power studies, which were based on assumptions, are no longer applicable.

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<sup>81</sup> *AEP Power Marketing, Inc., et al.*, 107 FERC ¶ 61,018 (2004).

82. ODEC filed comments in support of PJM's July 21 compliance filing. Nevertheless, ODEC repeated its request that the data upon which the MMU makes its determination of sufficient competitiveness to eliminate offer capping be made publicly available.

**B. Commission Decision**

83. The Commission accepts PJM's proposed no-three pivotal suppliers test, but is instituting a proceeding under section 206 to determine whether this approach is just and reasonable and needs to be revised. PJM's current mitigation rules provide no exception for load pockets that are competitive. PJM's proposal here will exempt generators from the mitigation requirement when a load pocket is found to be competitive. Therefore, the Commission will accept this proposal to become effective on the date of this order.

84. However, the Commission is concerned that this test may be too restrictive and will impose mitigation even in markets that are workably competitive. As the protesters point out, the Commission has adopted market screens for determining market based rates that differ from the three-pivotal supplier test. PJM has not satisfactorily explained why such screens, or reasonable derivations of these screens, are not appropriate for determining when load pockets are sufficiently competitive to permit relaxation of mitigation. Therefore, the Commission is instituting a section 206 inquiry to determine whether the three-pivotal supplier test needs to be revised. Within 30 days of the date of this order, PJM is required to respond to the protests and explain why the existing market power screens or reasonable modifications of those screens would not be an appropriate means of determining market power in load pockets. PJM also should address whether other modifications of its three-pivotal supplier test would be appropriate, such as using only two pivotal suppliers, rather than three.

85. Since the application of the no-three pivotal suppliers will be conducted in real-time, we reject ODEC's request for public access to the data upon which PJM makes its determination of competitiveness due to concerns about how to protect confidentiality of the data and the potentially massive burden on PJM to maintain and release the data. The Commission finds that the concerns raised by ODEC about the accessibility and transparency of data will be adequately addressed by requiring that the PJM MMU report on offer-capping in its annual state of the markets report.

86. We also reject the protests of those that object to any exemption from mitigation. Mitigation should only be imposed in situations in which there is a reasonable prospect that a generator can exercise market power. It is not appropriate to mitigate in workably competitive markets, and the Commission's inquiry here is designed to develop an economic test for determining when mitigation is necessary.



87. Because the three-pivotal supplier test process may be unjust and unreasonable, we are instituting an investigation into this process under section 206 of the FPA and establishing a refund effective date. Pursuant to section 206(b) of the FPA, the Commission must establish a refund effective date that is no earlier than sixty (60) days after the publication of notice of the Commission's intent to institute a proceeding, and no later than five (5) months subsequent to the expiration of the 60-day period. The Commission will establish a refund effective date of 60 days from publication of notice of this investigation. However, the Commission does not see a need for refunds in these circumstances, because any change to mitigation rules should be made prospectively and there would be no method for accurately calculating refunds. The Commission is also required by section 206 to indicate when it expects to issue a final order. The Commission expects to issue a final order in this section 206 investigation within 180 days of the date this order issues.

### **C. Tariff Sheets**

88. In its compliance filing, PJM includes two requests regarding tariff sheets. PJM asks the Commission to accept Substitute Original Sheet No. 402A in its Docket No. EL03-236-002 compliance filing. PJM states the Commission rejected Original Sheet No. 402A in the May 6 Order. However, PJM states Original Sheet No. 402A contained some language concerning the offer price cap in section 6.4.2(i), (ii), and (iii) that had previously been accepted and contained on Original Sheet No. 402. PJM also states that Original Sheet No. 402A contained revisions to section 6.4.2 (i) that are the same as revisions the Commission accepted on First Revised Sheet No. 131A of the Operating Agreement. Substitute Original Sheet No. 402A incorporates the already approved language that was moved from Original Sheet No. 402 and the revisions accepted on First Revised Sheet No. 131A of the Operating Agreement.

89. PJM also states that the Commission did not rule in the May 6 Order on First Revised Sheet No. 401 of the OATT, which contained revisions to Section 6.4 and 6.4.1(a) on offer price caps, even though it accepted the same revisions on First Revised Sheet No. 131 of the Operating Agreement. PJM asks for clarification that the Commission intended to accept First Revised Sheet No. 401 of the PJM OATT.

90. The Commission grants PJM's requests and accepts the designated tariff sheets to be effective June 1, 2004.

91. The Commission also clarifies that the following sheets proposed in the September 30, 2003 filing on which there was no ruling have since been superceded: the proposed table of contents sheets, First Revised Sheet No. 9 of the OATT and First Revised Sheet No. 4 of the Operating Agreement; proposed Original Sheet No. 47A of

the Operating Agreement concerning interchange (this provision is now contained on Third Revised Sheet No. 47); proposed Original Sheet No. 132.02 of the Operating Agreement (the tariff language on this sheet concerning concerns Auction Revenue Rights, is currently contained on First Revised Sheet No. 132); and proposed Original Sheet No. 104A of the OATT concerning studies for upgrades (now contained in 1st Rev Original Sheet No. 104A).

#### **IV. Compliance Filing, Docket No. EL03-236-003**

92. On November 2, 2004, PJM made a filing to comply with the requirements of the May 6 Order that it provide certain FMUS with alternative compensation, to develop a retirement policy, and to consider the use of pricing that recognizes operating reserve deficiencies. The following parties filed timely comments: PJM Industrial Customer Coalition, Reliant Energy, the PJM Industrial Customer Coalition, the Pennsylvania Office of Consumer Advocate, the Delaware Municipal Electric Corp., Inc. (DEMEC), the Virginia Commission, ODEC, Cinergy Services, Inc., Constellation Energy Commodities Group and Constellation Generation Group, LLC, the PSEG Companies, Exelon Corporation, Calpine Eastern Corporation and Calpine Energy Services, LP, Edison Mission Energy, Edison Mission Marketing & Trading, Inc. and Midwest Generation EME, LLC, and Consolidated Edison Energy, Inc. (ConEd). The Mirant Companies (Mirant)<sup>82</sup> filed comments jointly with the NRG Companies. NRG Companies (NRG) also filed separate comments one day late. NRG's motion for leave to file comments one day out of time is granted.

93. Several entities moved to intervene that have already intervened in this proceeding and are already parties. ConEd, Joint Consumer Advocates, and ODEC were granted party status in this proceeding in the order issued December 19, 2003.<sup>83</sup> The PJM Industrial Customer Coalition was granted party status in the May 6 Order.<sup>84</sup>

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<sup>82</sup> The Mirant Companies include Mirant Americans Energy Marketing, L.P., Mirant Chalk Point, LLC, Mirant Mid-Atlantic, LLC, Mirant Peaker, LLC, and Mirant Potomac River, LLC,

<sup>83</sup> *PJM Interconnection, L.L.C.*, 105 FERC ¶ 61,312 at P 14 (2003).

<sup>84</sup> May 6 Order at P 10.

94. Two entities moved to intervene that have not previously moved to intervene in this proceeding - American Electric Power Service Corp. (AEP) and The Dayton Power and Light Company (DP&L). AEP filed comments in Docket No. PL04-2-000 on February, 2004. Both were integrated into PJM on October 1, 2004. The Commission will grant the late motions to intervene of AEP and DP&L. The Commission recognizes that these entities are new members of PJM and thus have acquired a heightened interest in PJM proceedings. In addition, there is no prejudice to or additional burden placed upon the existing parties from permitting these late interventions.<sup>85</sup>

95. On December 27, 2004, PJM filed an answer to the protests to its November 2, 2004 compliance filing. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2003), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept PJM's answer because it has provided information that assisted us in our decision-making process.

**A. Frequently Mitigated Units**

96. The May 6 Order directed PJM to provide units that are needed for reliability and are offer capped more than 80 percent of their run hours the opportunity to recover their going forward costs through higher offer caps or other alternative compensation. It established a rebuttable presumption that generators offer capped 80 percent or more of their run hours are needed for reliability. Alternate compensation could include RMR-type contracts or a set of capacity payments, but only if PJM can explain why market design approaches will not remedy the problem. The May 6 Order provided 60 days for negotiations between generators and PJM. At the end of that time, a party could bring a disputed negotiation to the Commission.

97. In its November 2, 2004 compliance filing to comply with the Commission's directives regarding FMUs, PJM proposes to revise section 6.4.2 of the Appendix to Attachment K of the PJM Tariff and section 6.4.2 of Schedule 1 of the PJM Operating Agreement to provide compensation for FMUs.<sup>86</sup> First, it defines a FMU as a unit that "was offer capped for 80 percent or more of its run hours" in the calendar year

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<sup>85</sup> 18 U.S.C. § 385.214 (d) (2004).

<sup>86</sup> The PJM Members Committee endorsed the FMU amendments by a sector vote of 3.62 in favor and 1.38 against.

“preceding the calendar year in which the offer is submitted.” PJM proposed the 80 percent level: it “see[s] benefit in fixing the threshold at the 80% level to provide both fair levels of compensation as well as definitional clarity and administrative simplicity.”<sup>87</sup>

98. Second, PJM proposes an offer cap for these FMUs<sup>88</sup> different from the going forward costs suggested by the Commission in the May 6 Order. The offer cap consists of the unit’s incremental operating costs<sup>89</sup> plus the higher of a \$40 per megawatt-hour adder or the unit-specific going forward costs as reflected in an agreement between PJM and the generation owner. Going forward costs will include fuel costs and short run variable costs, long run variable costs, and the avoidable component of annual out-of-pocket direct costs (*e.g.*, direct labor, repair parts, site electric and communications, and property taxes).<sup>90</sup> The agreement for going forward costs will also specify that the unit

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<sup>87</sup> PJM Transmittal letter, at Page 7.

<sup>88</sup> Proposed Section 6.4.2(b), First Revised Sheet No. 402A, Attachment K - Appendix, PJM OATT, Sixth Revised Volume No. 1.

<sup>89</sup> These operating costs are found in Schedule 2, Components of Cost, to the PJM OA. (*See* Sheet Nos.167-169.) *The references to “Schedule 2” in sections 6.4.2(ii) and (iii) of Attachment K—Appendix, PJM OATT, Sixth Revised Volume No. 1 should be clarified to indicate that it means Schedule 2 of the PJM Operating Agreement or PJM should add Schedule 2 of the PJM OA to its Tariff.*

<sup>90</sup> The going forward costs are set forth in a Deactivation Avoidable Cost Rate which is proposed in connection with units that are not permitted to retire. (Proposed section 115, Original Sheet No. 224D through 224F, PJM OATT, Sixth Revised Volume No.1.) Going forward costs for offer cap purposes include avoidable expenses related directly to the unit for (1) labor for operations and maintenance labor (both on and off site); (2) administrative expenses for employees at the unit (employee expenses, environmental fees, safety and operator training, office supplies, communications, and annual plant test, inspection and analysis); (3) maintenance (chemicals and materials and rented equipment); (4) variable expenses excluding variable costs recoverable in the energy market (water treatment chemicals and lubricants; water, gas, and electric service (not for power generation); and waste water treatment); (5) taxes, fees, and insurance (insurance, permits and licensing fees, site security and utilities for maintaining security at the site, and property taxes); (6) short term carrying charges for maintaining reasonable levels of inventories of fuel and spare parts that result from short-term operational unit decisions as measured by industry best practice standards); and (7) corporate level expenses (legal services, environmental reporting, and procurement expenses). Although project investment costs are included in the Deactivation Avoidable Cost Rate, they are

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agrees to provide to PJM relevant cost data concerning fuel, operating, maintenance, and other avoidable costs; the maintenance practices and incurrence of expense at the unit shall be subject to audit by PJM; and the unit owner agrees to operate the unit in accordance with Good Utility Practice.

99. PJM anticipates that, in most instances, generation owners will be satisfied that the \$40 adder will cover a generating unit's going forward costs. It explains that the \$40 adder was based on an analysis of older combustion turbines currently in service in PJM, with independent cost estimates for verification.<sup>91</sup> PJM states that these older units have higher going forward costs than newer units and are thus a reasonable proxy for the FMUs.

100. In response to the May 6 Order, PJM is also proposing in section 6.4.2(d) that agreements between PJM and generation owners regarding offer capping will be filed with the Commission and will become effective only upon Commission acceptance for filing. In addition, PJM is proposing in section 6.4.2(a)(iv) that if PJM and a generator owner cannot reach agreement within 60 days of the commencement of negotiations, that the generator owner may submit the rates, terms, and conditions of its proposed offer cap to the Commission for resolution.

### **1. Comments Outside the Scope of This Proceeding**

101. Several general comments were submitted on the FMU compliance filing. Mirant/NRG argue that the need for a special policy for FMUs is evidence that there are fundamental flaws in PJM's market design. They argue that PJM's mitigation, even with the proposed revisions, is still based upon the potential, rather than actual, exercise of market power. Mirant/NRG urge the Commission instead to adopt a comprehensive and holistic market-based solution for FMU mitigation and compensation, which would also address retirement and scarcity pricing. Mirant/NRG further state that PJM's existing mitigation structure is unjust and unreasonable and recommends that the Commission direct PJM to implement mitigation based on the conduct and impact tests adopted by other ISOs and RTOs. DP&L is concerned that this filing may set precedents for the calculation of compensation for market based units, and that they argue that there should be consistency between the key rules of PJM and Midwest Independent System Operator (MISO).

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not included in the going forward costs included in the higher bid cap that is provided for frequently mitigated units.

<sup>91</sup> PJM provides workpapers to support the derivation.

102. Other parties are concerned about the implementation of the policy. DP&L requests that the Commission consider the frequently mitigated policy as an interim solution at best. They request that FERC remedy this situation in the long term by ordering PJM to conduct a meaningful review of mitigation, and explicitly consider compensation alternatives.

103. The Commission rejects these protests to the November Compliance Filing because they are outside the scope of this filing.<sup>92</sup> Any challenges to the May 6 Order's findings on PJM's mitigation mechanisms should have been made as rehearing requests. Furthermore, as PJM states in its December 27 answer, "the FMU compensation proposal by definition addresses only a limited class of units, it cannot address broader capacity pricing issues of concern to all market participants."<sup>93</sup>

## 2. Definition of a Frequently Mitigated Unit

104. Several comments and protests were filed concerning PJM's use of the application of offer capping for 80 percent of run hours as the definition of FMU. Virginia Commission, AEP, ConEd and Mirant/NRG object to PJM's use of the 80 percent threshold. Virginia Commission and AEP allege a lack of factual or evidentiary basis for the 80 percent level. AEP, ConEd, and Mirant/NRG question the propriety of treating units above and below the 80 percent level differently. ConEd and Mirant/NRG argue that any unit that can demonstrate that it is needed for reliability should be eligible for the higher offer caps, not just units that pass PJM's 80 percent threshold. Mirant/NRG protest PJM's use of the 80 percent threshold as a "bright-line" test and urges the Commission to reject this aspect of the proposal. According to Mirant/NRG, PJM inappropriately interpreted the Commission's rebuttable presumption directed in the May 6 Order. They state that "FERC never prescribed the 80% threshold as a bright-line test, and PJM does not justify its transformation of FERC's presumption concerning the 80% threshold into a prohibition precluding units that fall slightly below the 80% threshold from receiving the proposed compensation."<sup>94</sup> The Joint Consumer Advocates take issue with PJM's lack of responsiveness to the Commission's direction in the May 6 Order to consider whether a unit was recovering its costs when determining

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<sup>92</sup> *Great Lakes Gas Transmission L.P.*, 108 FERC ¶ 61,308 at P 11 (2004); *Midwest Independent Transmission System Operator, Inc.*, 108 FERC ¶ 61,143 at P 65 (2004).

<sup>93</sup> PJM December 27 answer at p. 9.

<sup>94</sup> Mirant/NRG protest at p. 19.

whether a unit can receive higher bid caps. They suggest that the PJM proposal should be amended to explicitly state that PJM will evaluate whether any plant that is mitigated more than 80 percent is both needed for reliability and is not receiving sufficient revenue to cover its going forward costs. ConEd requests an explicit connection between the deactivation policy and the FMU policy. It requests that the Commission require PJM to amend its deactivation policy in Part V to allow all units required to remain in service past their deactivation date to be eligible for the higher offer caps proposed under section 6.4.2(a)(iii) regardless of their actual hours of mitigation.

105. In its December 27 answer, PJM argued that the Commission's rebuttable presumption serves as a floor for a designation of a unit as a FMU. According to PJM, the Commission permitted PJM to rebut the presumption of a reliability need for these units. "In other words, PJM would have to demonstrate that a unit meeting the 80 percent threshold is not needed for reliability to exclude it from the higher offer caps."<sup>95</sup> PJM agrees with the Commission that the 80 percent threshold is a good measure by which to determine that a unit is frequently mitigated, and notes that no protester suggested another appropriate threshold. PJM also states that it chose to forgo the offer by the Commission to establish a rebuttable standard because "(i) the certainty and clarity afforded by a bright line test would be valuable to market participants, and (ii) the circumstance where a unit might meet the 80 percent test but not be 'needed for reliability' appeared sufficiently remote as to not warrant added complexity to the test."<sup>96</sup>

106. The Commission approves the proposed definition of FMUs as being responsive to the directions in the May 6 Order, and rejects the protests based on the same rationale as discussed with respect to similar rehearing requests. As we stated, the 80 percent test is a useful administrative benchmark for determining when units should be eligible for higher bid caps. The Commission believes that the 80 percent level is a reasonable cutoff level as the more a unit is mitigated, the less revenue it can recover through participation in the market. Conversely, for units that can significantly participate in the market, a short-run marginal cost bid cap is more appropriate because such units are much more likely to recover their costs through participation in the market.<sup>97</sup>

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<sup>95</sup> PJM answer at p. 4.

<sup>96</sup> PJM answer at p. 5.

<sup>97</sup> In competitive markets, generators should submit bids based on their short-run marginal costs, but will receive revenues based on the market clearing price. As explained earlier, the reason for changing the mitigated bid price for frequently mitigated units is that they may have little opportunity to receive revenues in excess of their bid.

107. While the Joint Consumer Advocates are correct that PJM did not include recovery of going forward costs in its definition of FMU, we find that the PJM's proposed definition, along with the proposed higher offer caps, are compliant with our direction. The May 6 Order directed PJM to revise its tariff to "provide the right" to FMUs to receive higher offer caps or alternative compensation. We find that the proposed definition of FMU along with the provisions associated with the higher of incremental cost plus the \$40 adder or unit-specific going forward costs and the ability to seek resolution from the Commission, provides FMUs who are not recovering sufficient revenues the "right" to seek higher offer caps.

108. Moreover, because we recognize that the 80 percent level is not a panacea, units mitigated less than 80 percent are permitted to establish that they too do not have a reasonable opportunity to recover their costs from the market. Because of the larger number of units involved with less than 80 percent mitigation, and their greater potential to recover costs through the market, the Commission finds it reasonable that these units need to provide further evidence that a higher bid cap or other relief is appropriate. The proposed tariff language in section 6.4.2(a)(iv) allows other generating units that do not meet the 80 percent test to seek alternative offer caps with PJM and the Commission. As a final resort, if the unit cannot achieve satisfactory resolution or if the offer caps negotiated with PJM are not sufficient, the unit can retire. If the unit is needed for reliability, the proposed deactivation policy will allow the unit to receive remuneration until alternative infrastructure can be built. Thus, the two programs interact to provide relatively efficient formulaic methods for providing older, less efficient units means for recovering their costs until they are replaced by more efficient units or transmission improvements eliminate the need for their continued operation.

109. The Commission rejects ConEd's proposed linkage of the higher offer cap aspect of the FMU policy with the deactivation policy. While both policies address the need to compensate generating units that provide reliability, they address two different problems. The FMU policy is focused on units that want to continue in operation, while the deactivation policy addresses units that are being retired, despite the higher payments that the FMU policy will provide.

### **3. Reasonableness of \$40 Adder and Going Forward Cost Policy**

110. Multiple parties protested and commented upon PJM's proposed policy for setting offer caps for FMUs at incremental costs plus the higher of \$40 per mega-watt-hour or the unit-specific going forward costs. Exelon, Industrial Consumer Coalition, ConEd, Cinergy, Joint Consumer Advocates, ODEC, and Calpine filed comments in partial or full support of the policy. Conversely, Virginia Commission, DEMEC, DP&L, AEP, and Mirant/NRG all argue that the \$40 adder is unsupported, and lacks sufficient cost support that would enable analysis. DEMEC and Mirant/NRG argue that the lack of data support



makes it difficult to find the adder just and reasonable. The Virginia Commission and DEMEC are concerned that the \$40 adder could result in a generator receiving revenues well in excess of those needed to compensate it for continuing to operate its unit. The Virginia Commission believes that the \$40 adder will serve as a floor, and therefore will result in overcompensation. Conversely, Calpine, DP&L, AEP, NRG, Mirant/NRG argue that the \$40 adder is inadequate, and is not a realistic level for recovery of costs. Mirant/NRG protest that PJM's proposal fails to provide appropriate compensation for local reliability service, and that the proposal includes at most only a small and arbitrary return in excess of marginal costs. ODEC argues for a rejection of the offer cap based on incremental cost plus the \$40 adder proposal, and recommends that the units be paid directly their incremental costs plus \$40.

111. In PJM's answer, PJM states that it supported its \$40 adder in its proposal and reiterated that it based the \$40 adder on an analysis of the costs required to maintain a portfolio of combustion turbines in a state of readiness, and provided the data and calculations used to develop the adder. PJM further states that the PJM MMU also validated the actual data of the generation owners through independent cost estimates of outside-sourced, fixed operations and maintenance services. In response to parties that argue that the adder is too small, PJM notes that the FMU proposal provides generators the opportunity to enter into an agreement with PJM for a different amount, and seek resolution from the Commission if an agreement is not reached. PJM argues that the \$40 adder is

simply a default compensation mechanism that provides FMU's the opportunity to recover their going forward costs without incurring the time and expense of a rate filing at the Commission. The adder provides predictability to market participants, should they choose to avail themselves of the default compensation. But, it does not limit a generator's opportunities to propose and receive a different level of compensation.<sup>98</sup>

112. DEMEC has concerns about the interaction of the FMU policy and other aspects of the PJM market. First, they argue that payments to FMUs should not be used to set LMP. According to DEMEC, bids capped at the \$40 adder or going forward costs are not "cost or bid based," and therefore should not set market clearing prices. Second, they believe that PJM's proposed compensation for FMUs provides adequate revenues for

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<sup>98</sup> PJM answer at p. 7.

units that are subject to mitigation. Consequently, there is no justification for the 10 percent adder to incremental costs and it should be eliminated. ODEC raises a similar concern. ODEC is concerned that the higher offer caps that would result from the FMU policy would send incorrect price signals.

113. The Commission accepts PJM's proposed policy for setting offer caps at incremental costs plus the higher of the \$40 adder or unit-specific going forward costs as in compliance with the May 6 Order. We find PJM has adequately supported the \$40 adder based on the costs of maintaining a portfolio of combustion turbines in a state of readiness. In addition, we find that the FMU offer capping policy represents a reasonable default alternative that provides administrative simplicity and regulatory certainty. If a generator believes the level of compensation is too low, the proposed FMU policy provides it the opportunity to negotiate higher offer caps based on its specific circumstances and seek Commission resolution if negotiations are unsuccessful.

114. We reject DEMEC's suggested revisions to not let FMUs set LMP or to remove the 10 percent adder in PJM's default local market power mitigation approach. The 10 percent adder was the compensation originally afforded offer capped units in PJM. Units required to run for reliability that do not meet the 80 percent criterion and that do not otherwise negotiate with PJM for specific compensation remain eligible for the 10 percent adder. Similarly, we reject ODEC's suggestion that FMUs be paid directly instead of only being allowed to increase their offers up to the higher off caps. As we concluded in the rehearing section of this order on similar issues, a transparent market process is preferable to cost-of-service rates that can cause high uplift payments. These offers are based on reasonable cost adders or going forward costs for the units involved and, therefore, should set the market clearing price. Defining the appropriate cost basis for mitigated offers is not an exact science, but the approach adopted here seeks to establish mitigated prices that would reasonably reflect offers in a competitive market. As such, these offers should set the market clearing price in order to send appropriate price signals about the need for new generation or enhanced load response. As we stated in our May 6 Order, our policy on reliability compensation will be to rely upon markets and proper market design, and to use non-market solutions only as the last resort.

#### **4. Agreed-Upon Unit-Specific Bid Caps**

115. PJM proposes that a generation owner may negotiate with PJM for an offer cap for a unit that is offer capped more than 80 percent of its run hours based on the unit's specific going forward costs.<sup>99</sup> If the parties reach agreement within 60 days, then, under

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<sup>99</sup> Section 6.4.2(a)(iii), First Revised Sheet No. 402A, Attachment K-Appendix, PJM Interconnection, L.L.C., FERC Electric Tariff, Sixth Revised Volume No. 1.

proposed section 6.4.2(d), the agreement shall be filed with the Commission and “shall be effective only upon acceptance of the agreement for filing by the Commission.”<sup>100</sup> If the parties cannot reach agreement in 60 days, then PJM proposes in section 6.4.2(a)(iv)<sup>101</sup> that the unit “may submit the rates, terms, and conditions of its proposed offer cap to the Commission for resolution.”<sup>102</sup>

116. DEMEC asserts PJM should be required to make the agreement process transparent by making all the data public, just as data would be made public in a proceeding before the Commission to obtain higher compensation for an FMU. The Commission sees no basis for making data available prior to the implementation of an agreed on higher bid cap. The determination of this higher bid cap is based on the formula in the tariff, and will be accepted by PJM as long as the unit qualifies. The Commission has already denied rehearing with regard to third party participation in the process for agreeing on the higher bid cap. As we stated in the rehearing portion of this order, it is sufficient that a third party may bring a complaint before the Commission if it is dissatisfied with the results. Under the tariff, the generator receiving an agreed on higher bid cap will make an informational filing with the Commission.<sup>103</sup> Market participants may seek further information based on the filing.

117. The Virginia Commission believes that a generation owner’s offer cap is a rate that must be filed pursuant to section 205 of the FPA and that the Commission has the authority to suspend the effectiveness of the offer cap and make it effective subject to refund. The Virginia Commission indicates that offer caps on which PJM and the unit owner agree and which are filed pursuant to section 6.4.2(d) are subject to suspension and refund when they are filed with the Commission.

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<sup>100</sup> Original Sheet No. 402A.01, PJM Interconnection, L.L.C., FERC Electric Tariff, Sixth Revised Volume No. 1.

<sup>101</sup> First Revised Sheet No. 402A, Attachment K-Appendix, PJM Interconnection, L.L.C., FERC Electric Tariff, Sixth Revised Volume No. 1.

<sup>102</sup> The Virginia Commission objects that proposed section 6.4.2(a) should allow 120 rather than 60 days for negotiations between PJM and the generation owner and that third parties should be permitted to participate in the negotiations. These claims are addressed and denied in the rehearing portion of this order.

<sup>103</sup> Section 6.4.2(d), Original sheet No. 402A.01.

118. The Virginia Commission asks the Commission to clarify section 6.4.2(a)(iv) with respect to when the generator owner and PJM do not agree. It asks whether, under these circumstances, the generator owner would be required to make a section 205 filing with the Commission with full cost support and other materials to justify the unit-specific offer cap. The Virginia Commission asks whether stakeholders will be able to examine the cost support for the filing and to comment on the generator's and PJM's proposals. The Virginia Commission also asks when a proposed offer cap filed pursuant to section 6.4.2(a)(iv) would become effective. The Virginia Commission asserts the Commission has the authority under section 205 to suspend the effectiveness of this proposed offer cap and make it effective subject to refund.

119. The Virginia Commission raises the issue of whether the filing with the Commission referred to in section 6.4.2(d) of PJM's tariff for a negotiated agreement for a higher bid cap is a filing under section 205 of the FPA and subject to refund under section 205. A similar issue arises in connection with filings with the Commission pursuant to sections 114 and 116 of a rate for a unit that is required to continue to operate rather than deactivate. Section 116 provides that such a filing with the Commission is an "informational filing." Joint Consumer Advocates ask whether the informational filing is subject to refund under section 205. Both the higher bid cap and the rate for the unit required to run are based on the Deactivation Avoidable Cost Rate in section 115 of PJM's proposed tariff provisions.

120. Joint Consumer Advocates note that the Deactivation Avoidable Cost Rate is a formula rate, one that is based on defined cost categories and specified calculations. The Commission has used formula rates for public utilities for many years as long as the formula is sufficiently clear that all parties can determine what costs go into the rate and how it will be calculated.<sup>104</sup> In such a case, the formula alone constitutes the filed rate.

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<sup>104</sup> See, for example, *Midwest Independent Transmission System Operator, Inc.*, 101 FERC ¶ 61,221 at P 64 (2002), *Order on Paper Hearing and Compliance Filing*, 108 FERC ¶ 61,235 at P 60 (2004); *Maine Yankee Atomic Power Company*, 42 FERC ¶ 61,307 at 61,923 ("Over the years, the Commission has found that formula rates that are not specific are unacceptable, and the Commission now requires that the specific formula calculations be reduced to writing and incorporated into the rate schedule."), *order denying reh'g*, 43 FERC ¶ 61,453 (1988). In this order, the Commission is accepting designated cost categories as comprising the Deactivation Avoidable Cost Rate, the main component of the Deactivation Avoidable Cost Credit, and specific calculations to determine the Deactivation Avoidable Cost Credit.

The Commission's acceptance of a formula rate authorizes the utility to use the formula rate on an ongoing basis. Further, section 205 filings are unnecessary as long as the utility continues to apply the formula that was accepted.<sup>105</sup>

121. PJM's proposal requires that rates under sections 114 and 116 for units required to run be filed with the Commission as informational filings, in keeping with the application of a formula rate. However, PJM treats rates for going forward costs under section 6.4.2 relating to unit-specific bid caps differently. Under section 6.4.2(d), a negotiated bid cap based on going forward costs becomes effective only when filed with and accepted by the Commission. This does not appear to be simply an informational filing. PJM has provided no explanation for what seems to be the different treatment of these going forward cost formula rates. As long as PJM is applying the formula rate for going forward costs, a section 205 filing is not needed. The Commission, therefore, will accept these filing requirements subject to PJM's filing revised tariff sheets within 30 days of the date of this order that modify section 6.4.2(d) by providing that the filing with the Commission is an informational filing and by specifying that the rate will go into effect when the unit qualifies for the application of the formula rate.

122. For both higher bid caps and the Deactivation Avoidable Cost Credit, generators that wish to file for rate treatment different from the going forward formula would have to make filings with the Commission. We agree that in these instances such a filing would be under section 205 of the FPA. In these cases, PJM has not applied the formula rate so that no rate has been established. The filing would be subject to the notice requirements and to the suspension and refund provisions of section 205.

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<sup>105</sup> However, the costs used in applying the formula rate are not part of the rate and have not been reviewed. These costs may be challenged by customers and other entities. (*Appalachian Power Company*, 23 FERC ¶ 61,032 at 61,088 (1983) (Commission not precluded from examining the reasonableness of fuel costs automatically collected under a formula rate). If the costs are shown to be unjust and unreasonable, the Commission may require retroactive relief. (*Golden Spread Electric Cooperative, Inc. v. Southwestern Public Service Company*, 72 FERC ¶ 61,142 at 61,727 n.9; *Public Service Company of New Hampshire*, 6 FERC ¶ 61,299 at 61,710 (1979) (fuel adjustment costs challenged and refunds required of the extra costs of spot coal).)

**B. PJM's Deactivation and Retirement Proposal****1. The Proposal**

123. PJM proposes to add a new Part V to its Tariff to govern the deactivation of generating units.<sup>106</sup> Deactivation includes both retirement and mothballing.<sup>107</sup> PJM proposes the following procedural schedule for a unit that is to be deactivated. A generation owner must give 90 days notice that it wishes to deactivate a unit and provide an estimate of any investment that would be needed to keep the unit operating. Thirty days from the date of the notice, PJM will inform the generation owner whether deactivation of the unit would adversely affect reliability and provide an estimate of how long the unit will be required to continue operating for reliability. Within 90 days of the generation owner's notice, PJM will post on its internet site the transmission upgrades that would be needed to permit the generating unit to deactivate.

124. A unit that is not permitted to deactivate for reliability reasons will be compensated in one of two ways. The generation owner may file a cost of service rate with the Commission to recover the entire cost of operating the unit beyond its Deactivation Date<sup>108</sup> or it may elect to receive a Deactivation Avoidable Cost Credit proposed in section 114 of the tariff. A generation owner that files with the Commission is ineligible for Deactivation Avoidable Cost Credits because it has filed a specific rate to recover its costs.<sup>109</sup>

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<sup>106</sup> The proposed new sections are 113 to 121 on Original Sheet Nos. 224A through 224I.

<sup>107</sup> The term mothballing is not defined, but the Commission understands this term to mean removing the unit from operations for the present, but maintaining the unit in a physical state such that it could become operational at a future date.

<sup>108</sup> The date a generating unit is either retired or mothballed and ceases to operate. Proposed section 1.7F, Original Sheet No. 34A.

<sup>109</sup> Proposed Section 119, Original Sheet No. 224H. If the generation owner is receiving Deactivation Avoidable Cost Credits at the time it files for cost of service rates, it will cease to receive the Deactivation Avoidable Cost Credit as of the date that it files its cost of service recovery rate.

125. The Deactivation Avoidable Cost Credit is a formula rate which permits recovery of otherwise avoidable costs, plus an adder that increases with the amount of notice given and the time the unit must remain in service for reliability. Its purpose is to recover costs that would otherwise be avoidable if it were permitted to deactivate on the proposed Deactivation Date, to the extent those costs are not recovered by net revenues. The adder is intended to increase compensation for the unit the longer it is required to run, thus providing additional return if the operating period is extended. It also serves as an incentive to loads to take actions to avoid the need for the generating unit.

126. The formula for the Deactivation Avoidable Cost Credit is

$$\text{Deactivation Avoidable Cost Credit} = ((\text{Deactivation Avoidable Cost Rate}^{110} + \text{Applicable Adder}) \times \text{Megawatt capability of the unit} \times \text{Number of days in the month}) - \text{Actual Net Revenues}$$

The adder for the first year is ten percent of the Deactivation Avoidable Cost Rate; it may be increased to 14 percent if the generation owner provides 180 days' notice and by one percent for each 30 days' notice greater than 180 days, up to a maximum of 20 percent for twelve months' notice or more. The adder for the second year is 20 percent; for the third year, 35 percent; and for the fourth year and until the generating unit is deactivated, 50 percent.

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<sup>110</sup> Proposed Section 115, Original Sheet No. 224D through 224F, PJM OATT, Sixth Revised Volume No.1. The Deactivation Avoidable Cost Rate includes avoidable expenses related directly to the unit for (1) labor for operations and maintenance labor (both on and off site); (2) administrative expenses for employees at the unit (employee expenses, environmental fees, safety and operator training, office supplies, communications, and annual plant test, inspection and analysis); (3) maintenance (chemicals and materials and rented equipment); (4) variable expenses excluding variable costs recoverable in the energy market (water treatment chemicals and lubricants; water, gas, and electric service (not for power generation); and waste water treatment); (5) taxes, fees, and insurance (insurance, permits and licensing fees, site security and utilities for maintaining security at the site, and property taxes); (6) short term carrying charges for maintaining reasonable levels of inventories of fuel and spare parts that result from short-term operational unit decisions as measured by industry best practice standards); (7) corporate level expenses (legal services, environmental reporting, and procurement expenses); and (8) project investment required to enable a unit to continue operating beyond its proposed Deactivation Date not to exceed \$2 million.

127. Actual Net Revenues consisting of revenues generation owners receive from the PJM markets and unit-specific bilateral contracts are deducted from the Deactivation Avoidable Cost Credit. If the Deactivation Avoidable Cost Rate plus the Applicable Adder is greater than the Daily Capacity Deficiency Rate, the generation owner will be credited the Daily Capacity Deficiency Rate.<sup>111</sup> PJM states this ensures that generation owners do not receive compensation for keeping a generating unit in service that exceeds the cost of new entry.

128. In section 116 PJM proposes that generation owners make filings with the Commission for informational purposes of the Deactivation Avoidable Cost Rate of a unit as of the proposed Deactivation Date.<sup>112</sup> The generation owner must also file applicable cost support and a certification of the accuracy of the Deactivation Avoidable Cost Rate. PJM proposes that a generation owner shall be eligible for Deactivation Avoidable Cost Credits commencing on the later of the proposed Deactivation Date of its generating unit or the day after it submits the informational filing to the Commission.<sup>113</sup>

129. PJM proposes reimbursement for project investment needed to keep a generator operating beyond its proposed Deactivation Date under sections 115, 117, and 118. The project investment amount that can be recovered through the Deactivation Avoidable Cost Rate is limited to \$2 million. If the investment needed is greater than \$2 million, the generation owner may file a rate with the Commission to recover the excess above \$2 million per unit. The generation owner must have an independent third party verify the need for such excess project investment prior to making the excess investment. PJM will credit the generation owner the amount of the rate approved by the Commission on the effective date established by the Commission.

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<sup>111</sup> Proposed section 114, Original Sheet No. 224 D. PJM explains that the Daily Capacity Deficiency Rate is set forth in Schedule 11 of the PJM Reliability Assurance Agreements. It represents the annual carrying charges for a new combustion turbine, installed and connected to the transmission system. *See, for example*, Reliability Assurance Agreement among Load Serving Entities in the MAAC [Mid-Atlantic Area Council] Control Zone, Sch. 11 ¶ A..

<sup>112</sup> Original Sheet No. 224F, Attachment K-Appendix, PJM Interconnection, L.L.C. FERC Electric Tariff, Sixth Revised Volume No. 1.

<sup>113</sup> Section 114, Original Sheet No. 224B, Attachment K-Appendix, PJM Interconnection, L.L.C. FERC Electric Tariff, Sixth Revised Volume No. 1.



130. The generation owner must refund PJM a pro-rata share of the amount of the project investment for which it received reimbursement if the generation owner's project investment permits a unit to remain operational beyond (1) the date when transmission upgrades are completed that would allow the unit to deactivate or (2) the date that PJM otherwise determines, in accordance with established reliability criteria, that the unit may deactivate and the unit remains in service. A generation owner will make refunds each month for the number of months the unit actually continues to operate up to the number of months the project investment would enable the unit to operate. This provision assures the recapture of capital expenditures that would have previously been billed to load during the period that continued operations were required.

131. PJM proposes that both the costs incurred and refunds resulting from compensation of generation owners will be allocated on the same basis. This would be to the loads in the zones of transmission owners that will be assigned financial responsibility for the upgrades necessary to permit a generating unit to deactivate.<sup>114</sup> PJM explains that the generation costs incurred under proposed Part V of its Tariff are a substitute for needed transmission improvements in a transmission zone. Consequently, it is appropriate to collect these costs from (or make refunds to) the same customers that would otherwise be responsible for the costs of needed transmission improvements pursuant to PJM's RTEP.

132. Proposed section 121 provides that a unit proposed for deactivation that must continue to operate for reliability shall be operated in accordance with Good Utility Practice and in such a manner as to be capable of following PJM's commitment and dispatch instructions. Upon commencement of compensation under proposed Part V of the Tariff, PJM and the PJM MMU will monitor deviations in the historic forced outage rate of the unit to determine the reasons for any reduced availability. If necessary, the PJM MMU will take action pursuant to the Market Monitoring Plan in Attachment M of the PJM Tariff.

## **2. General Review of the Methodology**

### **a. Comments**

133. PSEG, Industrial Consumer Coalition, ConEd, Joint Consumer Advocates, EME, DEMEC, Reliant, ODEC, DP&L, Exelon, are in support or generally support PJM's proposal. These commenters believe that the proposed amendments will provide

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<sup>114</sup> Proposed Section 118, Original Sheet No. 224H; proposed Section 120, Original Sheet No. 224H.

significant competitive improvements to market operations and system reliability. The Joint Consumer Advocates, Reliant, ODEC and Industrial Consumer Coalition also state that the proposed deactivation policy is a result of a series of carefully crafted compromises. They argue that this policy was supported by a sector vote of 3.63 in favor and 1.38 against, which demonstrates a strong support of the majority of PJM members.

134. PSEG further requests that the Commission act on the proposed deactivation proposal as expeditiously as possible because 1,100 megawatts of PSEG's generation proposed for retirement has been already identified by PJM as needed for reliability purposes. In this regard, PSEG also urges that the generation retirement proposal be reviewed by the Commission separately from the rest of the PJM proceeding. Such speedy measure will ensure, according to PSEG, that the needed generation units are available for operation during the summer of 2005.<sup>115</sup>

135. PSEG, Constellation, Calpine and Cinergy also suggest limiting the proposed deactivation policy to a finite transition period pending the implementation of the reliability pricing model intended to redesign and make more efficient PJM's location node-based capacity markets. They, as well as NRG, argue that PJM's organized market suffers from several critical design flaws and that PJM's filing does little to reduce the market's risk or increase its returns.<sup>116</sup> Cinergy is also concerned that PJM's proposal does not adhere to the principles set forth in the recently issued Midwest ISO order, which established a deactivation program only as a backstop measure to protect reliability within a limited period of time.<sup>117</sup>

**b. Commission Determination**

136. The Commission accepts PJM's proposal to establish rates to be paid to generators contemplating retirement that are needed for reliability. In the short-run, rates sufficient to permit generators contemplating retirement to continue service until new

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<sup>115</sup> PSEG proposed to retire seven generating units located in the northern portion of the PSE&G Zone effective December 7, 2004. PSEG states that in order for certain of the units to be available for the summer of 2005, several large maintenance projects and investments need to be undertaken during the spring of 2005.

<sup>116</sup> Among the key market design flaws, NRG lists vertical demand curve, low capacity deficiency rate, lack of locational value differentials, and insufficient alternative means to establish scarcity prices in the energy market. See *NRG Protest* at 5-6.

<sup>117</sup> *Midwest Independent Transmission Operator, Inc.* 109 FERC ¶ 61,157 (2004) at P 288 (Midwest ISO Order).

generation or transmission can be built will help assure reliable operations until PJM can provide substitute sources of supply either through the entry of more efficient units or the construction of transmission capacity designed to assure continued reliability. We conclude, therefore, that it is reasonable for PJM to require 90 days notice before a generator owned by a member of the PJM system may retire. As noted, PJM will advise the generator within 30 days if the unit is required for reliability. If the generator chooses to remain an active member and connected to the system in order to maintain reliability, the compensation structure discussed in the following sections would then apply to the generator's ongoing relationship with PJM.

137. However, we are rejecting the specific language in Original Sheet No. 224A 4, that provides that PJM can "require" generators to continue to operate for an indeterminate period,<sup>118</sup> because PJM has not adequately shown that it has the authority to require generators to operate beyond a reasonable notice period. PJM states that it has this authority under provisions of its tariff that require cooperation of its members to assure reliability and to conform to NERC standards. We do not find that these provisions justify requiring generators to operate for the indeterminate period provided under PJM's proposal.

## **2. Compensation**

### **a. Protests and Comments**

138. Several protestors argue PJM's proposal does not fully compensate generation owners for expenses they may bear to keep retiring generation units in operation. For example, Cinergy is concerned that a major repair or upgrade may not be compensated, because, typically, costs of such a multi-million dollar project are amortized over a long period of time. Cinergy is also concerned that the generation owner will be responsible for financing multi-million dollar projects in advance of obtaining full recovery.

139. Calpine further argues against the Deactivation Avoidable Cost Credit, asserting that it offers only a slight adder beyond the going-forward costs for the prospective right to rely upon the generator seeking deactivation. AEP, Mirant and NRG also express concern about the Deactivation Avoidable Cost Credit. In particular, they are concerned about (1) under-recovery of going forward costs and (2) the \$2 million cap on capital investment. AEP argues that the cost of major boiler component replacements or turbine overhauls, typically required to keep a unit running, generally exceeds \$2 million. NRG also argues that the Deactivation Avoidable Cost Credit should not exclude taxes, debt

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<sup>118</sup> Original Sheet No. 224A, section 113.2, lines 17, 30, and 35.

service, corporate overhead, decommissioning and other costs. These parties and DP&L suggest this mechanism must include return of and on equity and opportunity costs.

140. Mirant and NRG claim that alternative method of compensation envisioned in PJM's proposal does not provide an effective alternative for generation owners because of the high costs typically associated with litigating a full cost-of-service rate. Calpine, Mirant and NRG advance an alternative that is set at the cost of entry for a facility of the type (base, intermediate, peaking) the generator seeks to deactivate or retire. If a generator's costs exceed the cost of new entry, the generator should be allowed to recover all costs that it incurs to stay in the market after requesting retirement, including the return of and on equity.

141. In contrast, Joint Consumer Advocates assert that the avoided cost formula option provides generators the opportunity to obtain compensation while reducing the risk inherent in litigation over cost of service filings. They also support PJM's position that the escalating adders over time reflect the increasing risk to the generator of maintaining the unit longer than the anticipated retirement date, while providing an incentive to load to ensure timely completion of the transmission solution. They state that the avoided cost formula option is best suited for situations in which the time to construct a transmission alternative will be relatively short.

142. Joint Consumer Advocates also state that during the stakeholder process in PJM, generators and load were seeking different level adders, and that the adopted level of adders is a middle ground between the two proposals. Joint Consumer Advocates assert that the avoided cost formula option provides the opportunity for annual changes to the payments as well as changes to payments for unforeseen circumstances and the opportunity to switch to cost of service rates. They conclude that generators face relatively little risk of under-recovery of costs with this option.

143. DEMEC and the Virginia Commission question whether the adders (ranging from 10 to 50 percent) proposed by PJM to the formula rate are just and reasonable and request PJM to provide support for the derivation of these adders. DEMEC also suggests that since compensation to generators is not cost or bid based, the payment per megawatt hour made to them should not be used to set LMPs.

144. ODEC and DEMEC also argue that the PJM proposal does not adequately address ODEC's proposal to auction retiring generators that serve a reliability function and argues that additional time should be allocated for PJM to fully develop an auction proposal. Such a proposal, according to them, will allow PJM to address market power concerns and to find least-cost solutions to reliability needs.

145. ODEC further questions why load has to bear the financial burden of (1) keeping a generating unit online and (2) the upgrades necessary to permit this generating unit to deactivate. ODEC argues that just as transmission upgrades can benefit the entire system, as opposed to only the zone in which the upgrades are constructed, the continued operation of a generating unit that is necessary for reliability can benefit all users of the transmission system, not just load in the zone where the generator is located. Therefore, ODEC requests that the allocation of costs for continued operation of generating units follow the same identification of beneficiaries as RTEP.

**b. Commission Determination**

146. The Commission concludes that PJM's proposal provides sufficient compensation to generation owners required to operate their generating units for reliability beyond the units' proposed Deactivation Dates. As PJM states in its answer, the Deactivation Avoidable Cost Credit is intended as a default formula mechanism to provide reasonable compensation to generation owners continuing to operate on a temporary basis until the transmission upgrades are constructed that will enable the unit to retire.

147. The Commission emphasizes that PJM's proposed retirement compensation structure is a short term mechanism that provides compensation for units that choose to delay deactivation or retirement to assure the reliability of the system is maintained. It would not be appropriate to base compensation on generator entry costs because these do not necessarily reflect the least cost solution to reliability concerns. The goal here is to support reliability needs by fully compensating any unit for all going forward costs for the period it must delay its exit. It is not intended to promote entry of any particular generator type or to support additional generation as the sole solution. In fact, PJM asserts that improved transmission might be the most effective solution.

148. The Commission therefore concludes that PJM's proposed adders are a reasonable compromise for reflecting costs associated with delayed deactivation or retirement and therefore reject the reservations raised by DEMEC and the Virginia Commission. Furthermore, we do not agree that there should be an absolute bar against using bids from these units to calculate LMPs since the units may be dispatched at prices that exceed the compensation addressed here. If this occurred, the Deactivation Credit is reduced by the revenues generated from market bids, a better solution than the credit itself since it provides market based revenue to the unit. In any event, to the extent these units are not dispatched for energy their bids would not affect LMP calculations under PJM rules.

149. Finally, although we agree with ODEC and DEMEC that an auction for retiring generators that serve a reliability function would be desirable, we do not believe that it is essential. Therefore, we will not require an auction as an initial feature of the deactivation policy.

### **3. Relationship with RTEP**

150. DEMEC argues that PJM's proposal fails to explain the relationship with the PJM RTEP which addresses providing more transmission capacity for customers located in areas with capacity shortages. It claims this reduces the need for some units that may be retiring. In contrast, Calpine suggests that a better long-term solution to limit generator deactivation is to change PJM's market design and operations in a way that prevents the necessity of forced operation. Calpine proposes that PJM exclude any units from the RTEP base case analysis for the years where the generator owner has not entered into a forward contract to sell its capacity services. It argues this approach would stimulate load to better plan capacity needs and eliminate the need to create exit barriers for the generators. Such refinements to the RTEP and other market design changes may be appropriate, but they are beyond the matters taken up in this order and therefore these arguments will not be addressed here.

### **4. Performance Standards**

151. DEMEC argues that there should also be a penalty or reduction in the payments to generator owners who do not perform when called by PJM to run. Contrary to DEMEC, DP&L maintains that a generator that continues to operate after its desired retirement date should not be subject to vague and uncertain performance expectations by PJM. Instead, DP&L, continues, the unit must be operated in "as is" condition without any additional or implied performance expectations. Constellation similarly states that all units operating in PJM are expected to follow Good Utility Practice. The fact that a unit is being compensated under the Generator Retirement Policy should not change that requirement in any way.

152. We agree with Constellation that all PJM members are obligated to follow Good Utility Practice. In addition, generators must comply with the principles, guidelines, standards and requirements of NERC and Applicable Regional Reliability Councils. The Commission finds these obligations as sufficient and instructs PJM to limit performance standards only to the currently existing requirements. We direct PJM to make conforming tariff revisions in a compliance filing within 30 days. Further, we do not see a sufficient reason to impose additional penalties on generator owners that continue to operate after their desired retirement date.

## 5. Discrimination

153. NRG argues that the proposed retirement policy unduly discriminates against generation and in favor of regulated transmission. NRG also argues that by delaying transmission upgrades a competing transmission owner would inflict endless commercial losses or litigation costs on a competitive generation alternative solution to congestion and reliability needs. The PJM proposal, according to NRG, reinforces this discrimination by assuming that only transmission can replace the retiring generator's reliability service, while generation or demand response might prove to be better solutions to reliability needs.

154. PJM has an extensive RTEP process that provides a market opportunity for generation and demand response to compete with transmission expansions. As PJM's schedule 6, section 1.5.7(d) (3),<sup>119</sup> states, there is a one year window for market-based solutions to be proposed for alleviation of congestion that cannot be hedged by the use of Financial Transmission Rights or other hedging instruments available. However, in contrast to the RTEP, PJM's deactivation policy is focused on an immediate reliability problem, not on unhedgeable congestion costs. A comprehensive evaluation of competitive alternatives, essential in the RTEP, should not be a mandate before deciding whether a proposed deactivation should be delayed, especially since the deactivation policy is intended to function as a back stop. However, we agree that PJM should give full consideration to demand response or generation options if they are offered at the time it indicates what transmission upgrades are needed, but we will not require PJM to actively seek out transmission alternatives as part of its deactivation policy. We do not find PJM's proposal unduly discriminatory and will not require it to modify its deactivation plan to explicitly consider non-transmission alternatives, especially in light of the 90 day notification requirement.

## 6. Refunds

155. Joint Consumer Advocates seek clarification as to whether the informational filings required are subject to refund. They state section 205 of the FPA requires utilities to provide 60 days notice of any filings seeking to change rates and authorizes the Commission to allow rates to take effect subject to refund if time is needed to investigate their justness and reasonableness. Joint Consumer Advocates state PJM intends to begin payment of the avoided cost formula rate the day after the information filing is made. They assert the Commission must ensure that refunds are available for consumers if the formula rate is subsequently found to be too high.

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<sup>119</sup> Third Revised Sheet No. 185D, PJM Operating Agreement.

156. We have previously discussed the Deactivation Avoidable Cost Rate in connection with filings with the Commission of higher bid caps and the rate for units required to run. The Deactivation Avoidable Cost Rate is a formula rate. When PJM applies this rate, a utility is not required to make a filing under section 205. (A utility is required to report both the rate and the revenues from the Deactivation Avoidable Cost Credit on a quarterly basis under the Commission's Electric Quarterly Report filing requirements.)<sup>120</sup> However, as discussed earlier, the level of costs can be challenged, and if they are determined to be improper, the rate can be adjusted retroactively since it did not comply with the formula.<sup>121</sup>

## 7. Miscellaneous Issues

157. Several commenters make other suggestions regarding PJM's deactivation proposal. First, Exelon proposes that the deactivation proposal should explicitly state its application to critical black start units. Such units are currently required to give one year's notice prior to the end of a two-year commitment period to terminate the service. Exelon therefore requests PJM to clarify how this policy will coordinate with the retirement policy. Second, DEMEC suggests that proposed section 118 of the PJM tariff, which provides for the refund of project investment reimbursement if the generator remains in service after it is no longer needed for reliability, also should apply if a unit reactivates. DEMEC also suggests that loads with long-term bilateral contracts should not be allocated costs incurred to compensate generators. Calpine proposes that the Commission exclude post-1996 units from the proposed procedures.

158. We agree with Exelon that PJM must coordinate its black start policy with the deactivation proposal. We note that PJM in its answer indicated that on its face section 118 contemplates that if a unit deactivates and then reactivates (i.e. non-continuous operation past its Deactivation Date), the generation owner will need to

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<sup>120</sup> Utilities must file Electric Quarterly Reports with the Commission that include the rate and revenue from each sale of power. *Revised Public Utility Filing Requirements*, Order No. 2001, 99 FERC ¶ 61,107 (2002) (*see* Attachment C).

<sup>121</sup> *Golden Spread Electric Cooperative, Inc. v. Southwestern Public Service Company*, 72 FERC ¶ 61,142 at 61,727 n.9; *Appalachian Power Company*, 23 FERC ¶ 61,032 at 61,088 (1983) (Commission not precluded from examining the reasonableness of fuel costs automatically collected under a formula rate); *Public Service Company of New Hampshire*, 6 FERC ¶ 61,299 at 61,710 (1979) (fuel adjustment costs challenged and refunds required of the extra costs of spot coal).



refund its project investment reimbursement. In addition, we agree with PJM that all loads, with or without bilateral contracts, have independent capacity adequacy obligations. Thus, there is no need to exclude long-term bilateral contracts from financial obligations associated with compensating generators under the proposed deactivation policy. Our finding is consistent with our conclusions on similar issues in the RTEP proceeding.<sup>122</sup> Furthermore, we find that the standard zonal allocation method is a reasonable default methodology because it assigns responsibility to the zone which will receive the most benefit from the reliability benefit provided by the unit. The Commission will not exclude post-1996 units from the tariff requirements, but notes that since these are more modern, efficient units, they are less likely to be retired or mothballed.

### C. Scarcity Pricing

159. PJM's November 2 compliance filing includes an evaluation of whether it should adopt scarcity pricing. PJM concludes that its existing market design is successful in achieving high prices during periods of tight supply and that it does not need to consider alternative pricing to address scarcity conditions. PJM observes that prices throughout its control area tend to increase very significantly when demand approaches the limits of suppliers' aggregate capacity. The primary reason is that PJM generally allows "hockey stick" bidding by suppliers other than those subject to offer capping in load pockets. Under hockey stick bidding, generators' bids reflect their marginal costs for most of their output but increase significantly for a small amount of output at the tail end of their capacity (so that their bid curves have a shape resembling a hockey stick). Under LMP, energy prices in an area are determined by the highest accepted bid necessary to serve load in the area. If suppliers submit hockey stick bid curves, the price is set by a high bid from the tail end of the bid curve when aggregate demand throughout PJM is very high.

160. Commenters on this portion of PJM's compliance filing are divided. Commenters representing some energy buyers (including Joint Consumer Advocates, PJM Industrial Customer Coalition, ODEC, and Exelon) generally support PJM's filing. They argue that PJM's current market design properly captures short term scarcity conditions and that further changes are unnecessary. ODEC further argues that scarcity conditions should not be borne by load. Other commenters representing some energy sellers (including Consolidated Edison Energy, NRG, Mirant, Constellation), as well as AEP, argue that the PJM report is inadequate, because PJM's current pricing policy does not reflect scarcity when there is a shortage of operating reserves. The commenters argue that the need for a

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<sup>122</sup> See the orders in Docket No. RT01-2 such as 109 FERC ¶ 61,067 at P 63, 67-71 (2004).

generator retirement policy (which pays generators wishing to retire an extra-market revenue stream for reliability services) arises because market prices in PJM are insufficient to encourage some generators to remain in service. The commenters recommend that PJM be directed to adopt either scarcity pricing or markets for non-spinning reserves.

161. We will accept PJM's report on scarcity pricing and deny at this time the requests of Consolidated Edison Energy and others to require PJM to adopt scarcity pricing or markets for non-spinning reserves. We remain concerned whether prices in the PJM market accurately reflect supply and demand fundamentals. Currently, PJM's market design permits prices to rise through hockey stick bidding since there are no caps on generator bids other than those in load pockets that are dispatched out of economic merit order and the \$1000/Mwh offer cap. Based on the record before us, we do not have evidence that resulting prices fail to appropriately reflect scarcity conditions. Therefore, we will not require PJM to file a scarcity pricing mechanism at this time. However, we require the PJM MMU in its on-going monitoring to determine whether PJM's overall pricing approach is achieving efficient competitive prices.

#### **V. Docket No. PL04-2-000**

162. The Commission terminates Docket No. PL04-2-000. This docket is a general policy proceeding on reliability compensation issues. As the Commission issued its Reliability Compensation Issues policy in Docket No. EL03-236-000, there is no further need for Docket No. PL04-2-000.

#### **The Commission orders:**

(A) The Commission grants or denies the requests for rehearing as discussed in the body of this order.

(B) In Docket No. EL03-236-002, the Commission accepts the tariff sheets listed in Appendix A, subject to the modifications and clarifications in this order, to be effective as specified in Appendix A.

(C) With respect to Docket No. EL03-236-002, the Commission directs PJM to make the software upgrades necessary to implement the no-three pivotal supplier test and to report on how often offer-capping is suspended in its annual state of the markets report.

(D) In Docket No. EL03-236-003 the Commission accepts the tariff sheets listed in Appendix A, subject to the modifications and clarifications in this order to be effective the day after the date of this order.

(E) With respect to Docket No. EL03-236-003, the Commission requires PJM to provide the following clarifications and to file the following revised tariff sheets as discussed in the body of this order:

(1) PJM must file revised tariff sheets within 30 days of the date of this order to limit performance standards of units that continue to operate beyond their proposed deactivation date to the currently existing requirements as discussed in the body of this order.

(2) PJM must file a clarification and revised tariff sheets within 30 days of the date of this order that state how its deactivation policy coordinates with its black start policy.

(F) The Commission terminates Docket No. PL04-2-000.

(G) Pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Energy Regulatory Commission by section 402(a) of the Department of Energy Organization Act and by the Federal Power Act, particularly section 206 thereof, and pursuant to the Commission's Rules of Practice and Procedure and the regulations under the Federal Power Act (18 C.F.R., Chapter I), a public hearing shall be held in Docket No. EL03-236-000 concerning the appropriate test for exempting generators from mitigation, as discussed in the body of this order.

(H) PJM is required to file within 30 days of the date of this order a response to the Commission's concerns with its method for determining when to exempt generators from mitigation. Other parties will have 30 days from the date of PJM's filing to respond.

(I) The Secretary is directed to publish a notice of this section 206 proceeding in the Federal Register.

By the Commission.

( S E A L )

Magalie R. Salas,  
Secretary.

APPENDIX A

The following tariff sheets are accepted to be effective June 1, 2004:

Docket No. EL03-236-002

PJM Interconnection, L.L.C.  
FERC Electric Tariff  
Sixth Revised Volume No. 1

First Revised Sheet No. 401  
Substitute Original Sheet No. 402A

The following tariff sheets are accepted subject to the modifications and clarifications in this order to be effective the day after the date of this order:

Docket No. EL03-236-002

PJM Interconnection, L.L.C.  
FERC Electric Tariff  
Sixth Revised Volume No. 1

Fourth Revised Sheet No. 29B  
Substitute First Revised Sheet No. 402

PJM Interconnection, L.L.C.  
Third Revised Rate Schedule FERC No. 24  
[PJM Operating Agreement]

Fourth revised Sheet No. 10  
Substitute First Revised Sheet No. 131  
Substitute Original Sheet No. 131A

Docket No. EL03-236-003

PJM Interconnection, L.L.C.

FERC Electric Tariff  
Sixth Revised Volume No. 1

Fourth Revised Sheet No. 1  
Original Sheet No. 1.01  
Fourth Revised Sheet No. 2  
Fourth Revised Sheet No. 3  
Third Revised Sheet No. 22  
Original Sheet No. 22A  
Sixth Revised Sheet No. 29B  
Third Revised Sheet No. 34  
Original Sheet No. 34A  
Second Revised sheet No. 36  
First Revised Sheet No. 40A  
Fourth Revised Sheet No. 44  
Original Sheet No. 44.01  
Original Sheet No. 224A  
Original Sheet No. 224B  
Original Sheet No. 224C  
Original Sheet No. 224D  
Original Sheet No. 224E  
Original Sheet No. 224F  
Original Sheet No. 224G  
Original Sheet No. 224H  
Original Sheet No. 224I  
First Revised Sheet No. 402A  
Original Sheet No. 402A.01

PJM Interconnection, L.L.C.  
Third Revised Rate Schedule FERC No. 24  
[PJM Operating Agreement]

Sixth Revised Sheet No. 10  
First Revised Sheet No. 131A  
Third Revised Sheet No. 132  
Original Sheet No. 132.01