

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;  
Sudeen G. Kelly, Marc Spitzer,  
Philip D. Moeller, and Jon Wellinghoff.

PJM Interconnection, L.L.C.

Docket No. ER06-1474-000

ORDER CONDITIONALLY ACCEPTING PROPOSED CHANGES TO PJM'S  
REGIONAL TRANSMISSION EXPANION PLANNING PROTOCOL

(Issued November 21, 2006)

1. On September 8, 2006, PJM Interconnection, L.L.C. ("PJM") filed a proposed modification of its Regional Transmission Expansion Planning Protocol. PJM's proposed modifications constitute a revision to Schedule 6 of its Operating Agreement and Part IV of the PJM Tariff, which address the development of the regional transmission expansion plan (RTEP) for the PJM region. PJM is requesting that the Commission accept this filing and make the proposed modifications effective September 9, 2006.<sup>1</sup> The Commission conditionally accepts PJM's proposal subject to PJM submitting a compliance filing.

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<sup>1</sup> PJM requests a waiver of the Commission's notice provisions, 18 C.F.R. § 35.11, to permit an effective date of September 9, 2006, the day after the date of this filing. It states that good cause exists for such waiver because such an effective date will allow PJM to implement its new economic planning analysis as early as possible, furthering the Commission's goals of encouraging new transmission investment.

## **Background**

2. PJM's current planning process for "economic"<sup>2</sup> transmission expansions is based on the concept of "unhedgeable congestion."<sup>3</sup> Schedule 6 of PJM's current Operating Agreement provides that when unhedgeable congestion reaches certain thresholds, a one-year market window is opened during which time market solutions may be proposed by market participants to remedy the "problem."<sup>4</sup> Under the current Operating Agreement, PJM has the authority to request the construction of upgrades only if no market solution emerges and PJM determines that cost effective transmission upgrades are available.

3. In its September 8 filing, pursuant to section 205 of the Federal Power Act (FPA), PJM proposes to replace the unhedgeable congestion approach in determining whether transmission should be upgraded or expanded. In its place, PJM will not only evaluate unhedgeable congestion exceeding specified thresholds, but will consider other congestion metrics. Such metrics would include: (1) total production costs; (2) total load payments; (3) total generator revenue; (4) zonal load payments; (5) zonal Financial Transmission Right (FTR) credits; (6) total transmission system losses; and (7) total capacity payments. Based on these metrics, PJM will analyze whether reliability-based projects that are already in the RTEP would provide sufficient additional benefits to justify expanding, modifying or accelerating a particular transmission project. PJM would also determine whether new projects would provide sufficient benefits to justify adding them to the plan.<sup>5</sup> In addition, PJM will evaluate the extent to which demand response or new generation could eliminate the need for an economic-based upgrade. Market simulations performed by PJM will be used to compare the costs and benefits of the potential economic-based enhancements. These simulations will look at selected future years (1, 4, 7 and 10) within the planning horizon of the RTEP with and without

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<sup>2</sup> PJM divides transmission expansions into two categories: reliability and economic. Reliability expansions are those needed to ensure that load can be met reliably. Economic expansions (also called "market efficiency" expansions) are those that will reduce the costs of meeting load but are not needed to meet load reliably.

<sup>3</sup> Unhedgeable congestion is congestion that cannot be mitigated through existing transmission rights or by in-merit generation within the constrained area.

<sup>4</sup> See *PJM Interconnection, LLC*, 104 FERC ¶ 61,124, at PP 31-38 (2003).

<sup>5</sup> PJM defines "economic constraints," as including but not limited to constraints that cause (i) significant historical gross congestion; (ii) significant historical unhedgeable congestion; (iii) pro-ration of Auction Revenue Rights (ARRs) requests; or (iv) significant congestion as forecast in the market efficiency analysis.

the proposed reliability-based enhancements or the newly proposed economic-based enhancements.

4. Based on this market efficiency analysis, PJM's Office of Interconnection will assess whether to (1) accelerate reliability-based enhancements already in the RTEP that if accelerated could also relieve one or more economic constraints, (2) modify reliability-based enhancements or expansions already in the RTEP that could relieve one or more economic constraints, and/or (3) propose new enhancements or expansions that have no reliability-based need that could relieve one or more economic constraints. After PJM's Office of Interconnection makes an evaluation, it will present its analysis to the stakeholders (Transmission Expansion Advisory Committee), which will, in turn, present its recommendations to the PJM Board.

5. PJM also proposes to eliminate the one-year market window for upgrades. Instead, the proposal suggests two methods for including market solutions into the RTEP. First, PJM states that to be considered in the market efficiency analysis commencing after approval of the RTEP by the PJM Board in June, market participant proposals to construct economic-based projects (including enhancements or expansions of planned reliability-based projects) must be received by the Office of the Interconnection by December 31 of the same year. Second, the proposal states that "at any time, a market participant may submit to PJM a request to interconnect generation facilities or merchant transmission facilities pursuant to Part IV of the PJM Tariff that could address an economic constraint."

6. For each economic-based upgrade designated in the RTEP, PJM will outline: (1) the construction, ownership or financing responsibilities of any entity(ies), (2) an estimation of the costs of the enhancements, and (3) which market participants will bear the cost responsibility for the enhancements. If an entity with designated responsibilities of construction, ownership or financing responsibilities declines to accept those responsibilities, PJM will file a report with the Commission that includes information pertaining to the economic-based upgrade. The report by PJM could serve as a trigger for market participant responses, including but not limited to applications by transmission developers for incentive rate treatment or other regulatory treatments that would spur the development of these economic upgrades.

7. The planned economic-based upgrades will be periodically reviewed to ensure that the enhancement remains beneficial in terms of projected costs and benefits. PJM will review the cost and benefit changes with its Transmission Expansion Advisory Committee and decide whether to make a recommendation to the PJM Board to defer or remove the upgrade from the RTEP. Before upgrades that exceed \$50 million in costs are included in the RTEP, an independent review of the costs will be performed.

8. To enhance the economic planning process and to allow market participants to better understand trends in the grid, PJM will post monthly analysis of gross and unhedgeable congestion associated with transmission constraints, including the level of available economic generation used to calculate unhedgeable congestion costs.<sup>6</sup> In addition to this monthly information, PJM will provide periodic reviews of the new economic-based enhancements already in 15-year RTEP.<sup>7</sup> Together, this information will allow market participants to propose projects including merchant transmission, generation or demand response to resolve potential areas of congestion.

9. PJM's proposal also calls for expanding the role that the Transmission Expansion Advisory Committee<sup>8</sup> has in the planning process. This committee's responsibility will grow from simply assessing reliability concerns to significantly influencing the market efficiency analysis, including the annual assumptions used in that analysis.<sup>9</sup> The Transmission Expansion Advisory Committee will also serve as the forum where different scenarios such as alternative transmission or generation, demand-side response, and sensitivity analyses are considered. After the Transmission Expansion Advisory Committee has reviewed the study recommendations, it will provide the PJM Board with written comments on the recommendations; the PJM Board will then determine which upgrades to include in the RTEP.

10. To reflect the consolidation of the three Regional Reliability Councils - Mid-Atlantic Area Council (MAAC), the East Central Area Coordination Agreement (ECAR), and the Mid-American Interconnected Network (MAIN) - into the ReliabilityFirst Corporation, PJM is also revising section 1.2 of Schedule 6 and section 1.5.1.

### **Notice of Filings and Responsive Pleadings**

11. Notice of ER06-1474-000 was published in the *Federal Register*, 71 Fed. Reg. 54,644 (2006), with protests and interventions due on or before September 29, 2006.

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<sup>6</sup> PJM Interconnection, L.L.C., Third Revised Rate Schedule FERC No. 24, § 1.5.7(i).

<sup>7</sup> *Id.*, § 1.5.7(f).

<sup>8</sup> Transmission Expansion Advisory Committee is comprised of representatives of all sectors of PJM members – Transmission Owners, Generation Owners, Electric Distributors, End Use Customers and Other Suppliers.

<sup>9</sup> PJM Interconnection, L.L.C., Third Revised Rate Schedule FERC No. 24, § 1.5.7(a)

Timely motions to intervene were filed by FPL Energy Generators; Allegheny Power and Allegheny Energy Supply Company, LLC; Borough Of Chambersburg, PA; Pennsylvania Public Utility Commission; Blue Ridge Power Agency; Baltimore Gas & Electric Company; American Municipal Power – Ohio; Joint Consumer Advocates; American Electric Power; FirstEnergy Companies; Neptune Regional Transmission System, LLC; PPL Companies; Dominion Resources Services, Inc.; and Consumers Energy Company. Motions to Intervene out of time were filed by Public Service Commission of Maryland; New Jersey Department of Public Advocate; Dayton Power and Light Company; Ohio Consumers' Counsel; and Duquesne Light Company. Exelon Corporation (Exelon); Pepco Holdings, Inc., Potomac Electric Power Company, Delmarva Power & Light Company, and Atlantic City Electric Company (PHI); Wisconsin Electric Power Company (WEPC); Old Dominion Electric Cooperative (ODEC); Williams Power Company, Inc. (Williams); Long Island Lighting Company (LIPA); and Constellation Energy Group Companies filed comments. Mirant Energy Trading, LLC, Mirant Chalk Point, LLC, Mirant Mid-Atlantic, LLC, and Mirant Potomac River, LLC (Mirant); Rockland Electric Company and Consolidated Edison Energy, Inc. (Rockland and Con Ed); and PSEG Companies (PSEG) filed protests. PJM filed an answer to the protests.

## **Discussion**

### **A. Procedural Matters**

12. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2006), the timely unopposed motions to intervene serve to make intervenors parties to this proceeding. The Commission finds that granting all late-filed motions to intervene filed up to the date of issuance of this order will not delay, disrupt, or otherwise prejudice this proceeding, or place an additional burden on existing parties. Therefore, for good cause shown, pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2006), we will grant the late-filed motions to intervene.

13. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2006), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept the answer filed by PJM because it provided information that assisted us in our decision-making process.

## **B. Analysis**

14. We will accept with modifications PJM's proposal. We find that good cause has been shown for granting waiver of the 60-day prior notice requirement to permit a September 9, 2006 effective date.<sup>10</sup> The earlier effective date will allow PJM to implement its new economic planning analysis and further the Commission's goals of encouraging new transmission investment. The proposed new economic planning process takes a more expansive view of transmission planning and expansions than PJM's existing process. It is more forward-looking than the existing process, which only considers historic, unhedgeable congestion. Under the new process, market participants will have access to both historical information and projections for a 15-year planning horizon in deciding whether to undertake an upgrade or expansion. As a result of providing regular evaluation of potential economic-based enhancements, in addition to data on historic unhedgeable congestion, PJM anticipates a greater role for market-based generation and transmission solutions to be included in the RTEP. There is also greater opportunity for the adoption of advanced technologies. The new process gives PJM the responsibility to assess new technologies such as advanced conductors and compare them to traditional technologies. The new procedures will also allow demand resources and generation solutions to eliminate the need for an economic-based transmission upgrade. We also find that one of the benefits of the proposed process is that it will provide a systematic cost-benefit analysis of investments to reduce congestion. However, we find that the protestors have raised a number of important issues, which we address below.

### **1. Proposed Congestion Metrics and Underlying Assumptions**

#### **Comments and Protests**

15. Rockland and Con Ed submit that the proposed process requires several modifications. They argue that the Commission should modify the current proposal to remove PJM's use of highly uncertain long-term price forecasts to justify transmission projects and, instead, limit PJM's economic cost/benefit analysis to focus on only historical congestion (as is done in the existing process). Similarly, PSEG states that PJM's current Operating Agreement, while not perfect, includes clear definitions, metrics and thresholds that PJM is required to follow. PSEG argues that PJM's proposed changes replace specific standards with vague guidance which PJM has the discretion to ignore. As an example, PSEG discusses the assumptions that PJM will use to determine

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<sup>10</sup> *Central Hudson Gas & Electric Corp.*, 60 FERC ¶ 61,106 at 61,338 (1992), *reh'g denied*, 61 FERC ¶ 61,089 (1992).

need for acceleration or modification of reliability projects or creation of new economic projects.

16. In contrast, Williams and LIPA do not advocate retention of the existing economic planning approach. However, they find PJM's new approach to be too vague. Williams is particularly concerned about the lack of specificity with regard to the various economic metrics PJM intends to use in its RTEP process. Williams argues that PJM provides no specific descriptions of how its calculations will be conducted or how PJM will identify the assumptions underpinning its calculations, nor does PJM explain the process for evaluating the metrics it is incorporating into its calculation and the criteria under which each potential project will be judged. Williams also takes issue with PJM's proposed forecasting process and lack of specificity regarding provisions that would allow PJM to re-examine or stress-test price forecasts or the forecasts of market participants' generation expansion plans.

17. LIPA states that while PJM identifies the factors to be considered in PJM's proposed process for evaluating the needs for economic projects, its planned use of a totality of factors for selecting economic enhancements is too vague to provide a meaningful benchmark. LIPA states that PJM's proposal gives it complete discretion to apply these factors as it sees fit with no assurance that the factors or totality of factors will be applied consistently from project to project, or from year to year. LIPA argues that such assurance is necessary to provide certainty for market participants. Finally, LIPA states that PJM's proposal lacks adequate standards for stakeholder participation in economic planning decisions.

18. Mirant points out that in section 1.5.7(f), PJM states that "the Office of Interconnection shall periodically review the costs and benefits of constructing" enhancements and expansions. Mirant argues that PJM should be directed to define the terms of review with more specificity. Section 1.5.7(f) also states that "in the event there are substantial changes" in the costs and benefits of new economic-based enhancements and expansions included in the RTEP, the Office of Interconnection will review such changes with the Transmission Expansion Advisory Committee and recommend to the PJM Board whether such new economic-based enhancements and expansions should remain in the RTEP. Mirant states that market participants need greater clarity on what PJM deems to constitute "substantial" changes.

### **PJM Response**

19. In its Answer, PJM states that "there is no single, uniform test or standard that can be applied to all decisions regarding transmission upgrades, a fact that a majority of PJM members agreed with in approving this proposal. PJM states that no utility, Regional Transmission Organization (RTO) or otherwise, has a single "bright line" test for

determining whether to plan a transmission facility. Nor is PJM aware of any established test that any regulator, federal or state, has ever applied to any public utility, to determine exactly when a particular transmission upgrade should be planned. PJM states that protestors cite no such “bright line” standards and do not propose any “bright line” standards for the Commission to apply. PJM asserts that the majority of stakeholders believed that adoption of a “bright line” test would not be productive. PJM argues that nothing could be more misplaced and counterproductive to the goals of an efficient transmission system than rigid, overly prescriptive rules that could stifle necessary engineering judgment. System planners, argues PJM, in both the RTO and non-RTO context, must have the flexibility to consider all relevant factors in making their transmission planning decisions, without being bound to rigid tests.

20. In addition, PJM argues that there should not be any rules in the tariff dictating how PJM will develop the necessary assumptions that are part of any planning study, such as future fuel costs and future load growth. Rigid specification, PJM asserts, would inevitably lead to less reliable study results because the judgment of system planners (and advice of stakeholders) with regard to study assumptions and parameters often changes over time and with experience. PJM argues that its economic planning proposal already contains provisions to expand the role of the Transmission Expansion Advisory Committee to provide for review of, and comments by, all PJM stakeholders regarding study assumptions before those assumptions are applied in the analysis.

21. Finally, PJM argues that “requiring PJM and stakeholders to come up with more definitive rules for planning economic transmission would only embroil the parties in further contentious stakeholder meetings regarding “process rules,” instead of turning their attention to the important economic planning work that needs to be done.” PJM believes that this might delay economic transmission planning for another several years, to the financial gain of the generators seeking for their own economic reasons to avoid transmission construction in the region. PJM believes that such a delay would be to the detriment of consumers and the public interest.

### **Commission Determination**

22. No single standard likely can be applied to all decisions or all upgrades. As a practical matter, many considerations go into the decision of whether, what and when a project is undertaken. Long-term price forecasts will all be appropriately considered and weighted; and thus we disagree with Rockland and Con Ed that PJM should avoid use of long-term price forecasts. However, as we have proposed with regard to Reliability Standards, we would expect PJM to provide stakeholders with measures of the accuracy of the forecast and to perform sensitivity analyses around such key factors as price forecasts.

23. We will accept PJM's proposal to consider additional metrics in evaluating proposed economic-based accelerations or new upgrades. The current use of the single, unhedgeable congestion metric focuses exclusively on congestion in the energy market and ignores the effects of transmission expansion on congestion in other markets, such as the capacity market, as well as the effects on losses. The additional metrics proposed by PJM, in principle, could help to identify a broader array of net social economic benefits that would result from an upgrade.

24. However, PJM has not adequately explained how it will consider the different metrics or the weight that it will give to the various metrics. Therefore, we will require PJM to explain in detail through a compliance filing within 120 days of the date of this order how PJM will weigh, consider and/or combine the various metrics it proposes in determining the net social economic benefits of a project. In the compliance filing, PJM must also clearly delineate the ways in which generators and demand response providers will be included in the economic planning process. In this way, the Commission believes that potential investors in generation and demand response that may be affected by transmission upgrades will be better informed about the circumstances when upgrades may be built.

25. We disagree with LIPA, however, who argues against PJM's discretion in applying the metrics. Once PJM explains the process for considering the metrics, it should have full discretion in applying them to select among the projects submitted by the market participants. This has been recognized as one of the key functions of an RTO.<sup>11</sup> Effective regional planning requires full consideration of proprietary information from competitors, customers and suppliers that is best shared through an entity that is disinterested in any one participant's decision. PJM, as an RTO, has always been in the best position to conduct such objective analysis, and the proposal does not change PJM's role in this regard.

26. We also find that PJM should provide more specificity with regard to the term of review, explain how often period reviews will be conducted and what constitutes a

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<sup>11</sup> As we stated in Order No. 2000, RTOs have the ultimate responsibility for both transmission planning and expansion within their region that will enable them to provide efficient, reliable and non-discriminatory service. *Regional Transmission Organizations*, Order No. 2000, 65 Fed. Reg. 809 (Jan. 6, 2000), FERC Stats. & Regs. ¶ 31,089 (1999), *order on reh'g*, Order No. 2000-A, 65 Fed. Reg. 12,088 (Mar. 8, 2000), FERC Stats. & Regs. ¶ 31,092 (2000), *aff'd sub nom. Pub. Util. Dist. No. 1 of Snohomish County, Washington v. FERC*, 272 F.3d 607 (D.C. Cir. 2001).

substantial change in section 1.5.7 (f). We direct PJM to amend section 1.5.7 (f) accordingly in its compliance filing to be filed within 120 days of the date of this order.

## **2. Cost Allocation**

### **Comments and Protests**

27. PSEG, Rockland and Con Ed state that the Commission should reject PJM's tariff filing until a cost allocation methodology developed by the appropriate PJM stakeholder process can be paired with the current proposal. Rockland and Con Ed state that the reasonableness of the underlying economic planning process cannot be fully evaluated without a clear understanding of the allocation of costs. PSEG suggests that such vagueness will result in protracted contests as stakeholders argue over "who pays." LIPA argues that PJM fails to address the way in which any acceleration or modification of a reliability-based improvement will affect the cost allocation that will have already been determined at the time PJM requests acceleration or modification of the planned improvement.

28. Exelon states that PJM's Regional Planning Process Working Group (RPPWG) continues to discuss cost allocation for these projects, but until PJM files to modify section 1.5.6(g) of Schedule 6 of the Operating Agreement, the present allocation based on a "beneficiary pays" approach remains in effect. Exelon also notes that the appropriate allocation method for all new facilities is pending before the Commission in Docket No. EL05-121.

29. ODEC supports PJM's proposals to enhance market efficiency planning for the transmission system. ODEC observes although cost allocation issues need not be resolved in this docket in order to approve PJM's proposals, such issues will have to be resolved eventually, however, either in PJM stakeholder processes or in separate proceedings before the Commission when PJM proposes cost allocations for the kind of "economic" upgrades contemplated in PJM's filing.

### **PJM Response**

30. PJM argues that Schedule 6 of the Operating Agreement already has provisions regarding cost allocation for economic upgrades. Section 1.5.6(g) already provides that PJM shall assign cost responsibility for transmission enhancements based on its "assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants" and that such allocations will be included in Schedule 12 of the PJM Tariff and filed with the Commission for approval. Thus, PJM argues, there is no gap in the proposal concerning cost-allocation. While the PJM members are discussing potential enhancements to the

cost allocation rules and PJM is seeking Commission guidance in other cases, PJM will make allocations and file them under the current rule. PJM adds that all it requests the Commission to consider here is the commencement of planning for economic facilities. PJM adds that the facilities will not enter service for years to come, and that cost allocation rules can be filed and approved well in advance of their placement in service.

### **Commission Determination**

31. As PJM has stated in its transmittal letter, there is an existing policy for allocating the costs of economic upgrades in its Operating Agreement that is based on the principle that beneficiaries shall be allocated the costs of economic upgrades. In accepting this allocation method, we have concluded that it is just and reasonable,<sup>12</sup> although we may conclude in the future that other cost allocation methods may provide a better measure of the beneficiaries of economic upgrades and, thus, will also be just and reasonable. Accordingly, we see no reason to delay a decision in the instant docket to await a proposal to revise the existing cost allocation methodology since PJM has in place an existing just and reasonable method for allocating the costs of economic upgrades. Nevertheless, we will require PJM to submit status reports every 90 days, beginning 90 days after the date of this order, on the progress of any stakeholder discussions on cost allocation, since cost allocation may affect which economic projects are included in PJM's RTEP.

### **3. Identification of Market Efficiency Proposals**

#### **Comments and Protests**

32. Williams states that PJM's proposal may impose a discriminatory practice of favoring rate-based regulated transmission solutions over potentially less expensive and more competitive economic solutions, such as new generation.

33. PSEG's concerns parallel those of Williams, asserting that a lack of standards in PJM's proposal gives PJM tremendous discretion to conduct regional transmission planning. PSEG argues that the new process allows PJM to justify new rate-based transmission independent of any finding of market failure, any bright-line cost effectiveness test or any other direct, objective measures. PSEG recognizes the need for rate-based regulated transmission as a means to ensure reliability. However, PSEG asserts that PJM's proposal will result in the commitment of significant capital resources to be paid with rate-based funds without consideration of whether transmission is even

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<sup>12</sup> See *PJM Interconnection, LLC*, 109 FERC ¶ 61,067, at PP 64-71 (2004).

the most economical solution for consumers and without giving consumers a right to opt-out of payment. PSEG further rejects PJM's reliance on the Transmission Expansion Advisory Committee, arguing that the committee is not equipped to properly review assumptions and that any review should have a formal comment process.

34. Mirant states that the Commission should direct PJM to explain the details setting forth the point in time and/or level of transmission development expense after which a market solution may not "bump" an economic or reliability transmission expansion from the RTEP. Mirant argues that market participants should have sufficient advance notice of this date so that money is not wasted on projects that may be deemed uneconomic by either transmission developers or alternative providers. Mirant states that the Commission should require PJM to maintain a database on its website detailing the progress of construction of transmission projects that are included in the RTEP so that developers of alternative projects will know if it may be too late for them to propose a viable alternative. Further, Mirant states that the Commission should require PJM to include in either the Operating Agreement or PJM Tariff (1) the criteria that it will use to determine if an alternative project is more economic than an RTEP project, (2) the deadline that PJM must meet for that determination and (3) require PJM to file with the Commission within 30 days of PJM making the determination to delay or withdraw a transmission project from the RTEP.

### **PJM Response**

35. PJM argues that its transparent planning process is open and inclusive and that its assumptions and rationale are subject to stakeholder debate and challenge. PJM notes that the proposal includes modifications to the role of the Transmission Expansion Advisory Committee that give stakeholders the opportunity to review and provide written comments at several points during the process. The results of this process are subject to further check by PJM's independent Board of Managers. Thereafter, to the extent that market participants disagree with the outcome of PJM's economic planning process, PJM insists that its proposal provides avenues to address such disputes. For example, PJM states that market participants may invoke PJM's dispute resolution procedures. PJM further states that market participants also may file a complaint with the Commission about any perceived erroneous planning decisions under Schedule 6 of the Operating Agreement. In addition, PJM notes that entities that PJM designates as responsible for constructing, owning or financing an economic-based upgrade may decline that responsibility, and PJM will then report these facts to the Commission. Thus, PJM argues that, while it has discretion in the economic planning process, it does not have carte blanche in exercising that discretion without recourse by market participants.

### **Commission Determination**

36. As we indicated, PJM's proposal does not unduly discriminate in favor of rate-based transmission solutions and that, on balance, it provides opportunities for market-based investments (including transmission, generation, and demand-side investments) to enter the market. While in the past, only market solutions to transmission congestion were evaluated in the first year after congestion was identified, PJM's proposal allows rate-based solutions to be considered right away. Thus, market and rate-based solutions are on par. The proposal provides opportunities for merchant investments by providing additional information and forecasts about future market conditions that will aid market participants in identifying profitable and efficient market-based investments. Market participants will have the opportunity to propose market-based solutions to transmission congestion at any time, not merely within the 1-year market window.

37. We are sympathetic to Mirant's desire to have adequate and timely information to know when a project may be bumped. We find that PJM should post a database on its website detailing the progress of construction of transmission projects that are included in the RTEP so that developers can use the information when considering the viability of alternative projects. We also find that PJM should further elaborate on the criteria that it will use to determine if an alternative project is more economic than an RTEP project. However, we see no value in requiring PJM to establish an arbitrary date beyond which PJM would cease to consider whether continuing a project has net economic benefits, since such an economic "point-of-no-return" is likely to vary depending on the project in question and would be difficult to estimate.

38. We disagree with PSEG's argument that consumers will not have a right to opt-out of payment. To the contrary, PJM states that when PJM's Office of Interconnection makes its evaluation, it needs to present this analysis to the stakeholders through the Transmission Expansion Advisory Committee, which then provides its recommendations to the PJM Board. Thus, project beneficiaries will be able to express their views not only to the Office of Interconnection, but also to the other stakeholders and PJM's Board. Once a proposal is included in the RTEP, cost allocation will be filed with the Commission and project beneficiaries will again be able to have a voice in whether the upgrade is approved. This is the same process that is currently applicable to reliability-based projects.

## **4. Participation of Generation and Demand Response**

### **Comments and Protests**

39. Rockland and Con Ed state that under PJM's proposal, generation and demand response will get the wrong signal. Developers of generation will be encouraged to

ignore the price signals of locational capacity value and instead will site assets in areas with lowest fuel costs, and minimal environmental restrictions, appreciating that PJM's economic planning process will encourage construction (at no cost to the developer of out-of-area generation) of new long-haul transmission from out-of-area generating plants to areas with higher energy prices. Further, Rockland and Con Ed state that PJM's proposal is likely to encourage the construction of new transmission only and will disadvantage new generation and demand side response. Also, Rockland and Con Ed state that PJM should modify its economic modeling to recognize the likely future location of generation and demand side response projects or shortening the time frame for calculating economic benefits for transmission to recognize the high degree of uncertainty of those benefits particularly in the outer years of long-life transmission projects.

40. Similarly, PSEG argues that the PJM proposal will inhibit private investment in merchant transmission and generation. PSEG argues that private investors cannot compete against rate-based regulated transmission and that economic transmission planning, as proposed by PJM, will limit merchant transmission to the seams, where price signals may still exist. PSEG argues that rate-based regulated transmission solutions are inherently advantaged, because regulated transmission owners are allowed to spread costs over many beneficiaries as determined by PJM, while merchants cannot do the same. Thus, PSEG argues that regulated transmission will pre-empt, not compete in the marketplace. Ultimately, PSEG asserts that PJM's "market efficiency" proposal unlevels the playing field, preferring transmission and adding risk to demand side investments.

41. CEG Companies<sup>13</sup> request PJM to clarify that, in the event that an Interconnection Service request eliminates or defers the reliability or the market efficiency need (but not both) for the Upgrade Project, while PJM may not eliminate or defer the Upgrade Project altogether, it nevertheless will take measures to re-examine the scope of such Upgrade Project in order to consider whether the Upgrade Project, as originally designed in the RTEP, may need to be adjusted for the change in circumstances with respect to the change in one of the needs (*i.e.*, either the reliability or the market efficiency need).<sup>14</sup>

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<sup>13</sup> Constellation Energy Commodities Group, Inc. (CCG), Constellation Generation Group, LLC (CGG), and Constellation NewEnergy, Inc. (CNE) (collectively, the CEG Companies)

<sup>14</sup> Proposed section 37.2 of the Tariff states that: "Where a Local Upgrade or Network Upgrade included in the [RTEP] is classified as both a reliability-based and market efficiency project, an Interconnection Service request cannot eliminate or defer  
(continued)

The CEG Companies argue that absent such a policy of reevaluation, if an Interconnection Service request (Reliability Service Request) eliminates only the reliability need, for instance, for an upgrade project, then continuing to build the upgrade project to the original RTEP's specifications (which accounted for both the previous reliability need which no longer exists and a market efficiency need which continues to exist) may lead to unnecessary overbuilding of an upgrade project.<sup>15</sup>

### **PJM Response**

42. In its Answer, PJM argues that the proposal does not "favor" transmission solutions over generation solutions, as some protestors contend. To the contrary, argues PJM, under the new process, every year PJM will provide substantial information to market participants, including the amount of generation and demand response that would alleviate constraints without the need for transmission upgrades. This will enable market participants to evaluate whether to provide market solutions to relieve congestion. If other market solutions come forward, alleviating congestion, then PJM will take them into account in developing and modifying its regional transmission plans accordingly.

### **Commission Determination**

43. As discussed earlier, we require PJM to provide greater specificity of how the expanded set of metrics will be evaluated and weighted. In addition to clarifying the metrics, we request PJM to explain the procedures for evaluating merchant transmission, generation and demand response solutions. In particular, PJM should clarify whether demand response proposals can be made at any time to address the economic constraint (similar to how generators and merchant transmission solutions providers can make their proposals), and the information necessary to demonstrate that a demand response proposal can eliminate the need for an economic based upgrade. PJM should also clarify the timeline for including demand response, generation or merchant transmission proposals into each annual RTEP. For instance, PJM's revised Manual 14b posted on PJM website (<http://www.pjm.com/committees/mrc/downloads/20060630-item-06-draft-manual-14b-changes.pdf>) states that the "process of formally submitting proposals is not limited to transmission solutions but may also include generation solutions via PJM's established interconnection queue process; or, demand side management and load management proposals as well." It also states that "the assumptions related to potential new generation (or demand side resources) or generation retirements, will include, to the

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such upgrade unless the request eliminates or defers both the reliability need and the market efficiency need identified in the [RTEP]."

<sup>15</sup> CEG Companies at 4.

extent feasible, the results of any locational capacity market auction(s).” The Commission believes that this information shall be included in the PJM Tariff, not just the manuals and we direct PJM to submit within 90 days of the issuance of this order the necessary revisions to the PJM Tariff.

44. PJM states that the new economic planning process will provide new opportunities to employ advanced technologies and will evaluate on a routine basis both traditional and advanced technology enhancement to transmission project. We ask PJM to provide additional information regarding the advanced technologies currently assessed and whether distributed generation and high efficiency transformers are among those technologies.

45. Finally, we intend to direct our staff to convene a technical conference to examine, on a generic basis, the feasibility of employing demand response resources as cost-effective alternatives and/or complements to transmission expansions and what mechanisms (*e.g.*, market or regulated) should be considered for compensating demand resources that are found to be feasible alternatives and/or complements.

46. With regard to PSEG arguments, we find the RTEP change does put merchant (transmission and generation solutions) and regulated transmission solutions on par. With the elimination of a market window, all solutions will now be reviewed simultaneously. PJM will conduct the economic planning analysis annually and will modify the RTEP if other non-transmission solutions emerge that would require revisions to the plan. If market produces generation or demand response that addresses system constraints, then PJM will account for the new resources in all future RTEP plans. If such resources obviate the need for transmission already included in the RTEP, then PJM will consider modifying the plan to remove transmission rendered unnecessary. It is also important to note that market solutions can now also be proposed at any time, not just within the first year. Specifically, the proposal states that any market participant at any time may submit to the Office of the Interconnection a proposal to construct an additional economic-based enhancement or expansion to relieve an economic constraint. Moreover, because PJM will be employing a 15-year planning horizon, it will be providing forecasts to market participants far in advance that will enable them to identify market solutions to address future congestion. This information will enable market participants to evaluate whether to propose a market solution that could solve a constraint and thus eliminate the need for economic-based transmission enhancements that have longer lead times. This will allow market participants to compete more effectively with the regulated transmission solutions.

47. This requirement to provide greater specificity will permit a reasonable balance between investment in transmission supported by captive customers and private investment in generation, merchant transmission and demand response. We disagree that

further modifications to the RTEP are required at this time. Similarly, the RTEP, which has a 15-year planning horizon, already incorporates an opportunity through the Transmission Expansion Advisory Committee to revise and update the plan as conditions change, and we conclude that the annual updating process envisioned by PJM adequately responds to concerns raised by the CEG Companies.

## **5. Allocation of ARRs/FTRs**

### **Comments and Protests**

48. Exelon states that it is not clear how the ARRs and FTRs that are associated with new market efficiency projects, will be allocated, as well as how to differentiate those rights when a reliability project is accelerated for economic reasons. Exelon states that these issues are not before the Commission at this time but need to be resolved along with the cost allocation issues.

49. PHI adds that in its order on PJM's economic planning proposal, the Commission should clearly confirm the principle that those who pay for transmission upgrades are entitled to the incremental financial rights created by those upgrades. These important and integrally-related cost and financial rights allocation issues must be resolved in an expeditious manner. To that end, PHI states that the Commission should direct PJM to provide a report on the resolution of these matters within 30 days after the effective date of these planning revisions and, to the extent necessary, periodically thereafter until resolved.

### **PJM Response**

50. In Its Answer, PJM argues that it agrees with protestors and commentators that cost allocation and FTR/ARR allocation issues are important issues that should be addressed by the PJM stakeholders and the Commission. PJM states that cost allocation and FTR/ARR allocations are currently being discussed by PJM stakeholders. PJM disagrees, however, that these issues "must be resolved before the process proceeds," as some protestors argue. In PJM's view, there is no reason to postpone approval of the economic planning process until these other issues are finally resolved. PJM adds that the facilities will not enter service for years to come. Cost allocation and FTR/ARR allocation rules can be filed and approved well in advance of their placement in service. The Commission should not delay the start of planning transmission projects that will benefit consumers by relieving congestion.

### **Commission Determination**

51. We agree with PJM that issues concerning cost allocation and FTR/ARR allocation are outside the scope of this filing. Although interrelated, these issues need to be resolved separately, and we encourage PJM stakeholders to continue their discussions on this matter.

## **6. Cost Recovery of Abandoned Facilities**

### **Comments and Protests**

52. PHI states that, in any order approving PJM's proposal, the Commission should ensure cost recovery of abandoned facilities arising out of this process. PHI states that PJM must address the allocation of costs and financial rights in conjunction with the proposed economic planning process. PHI states that the Commission should make clear in any order accepting the PJM filing that the changes to be implemented by PJM will materially increase the risk of project abandonment, and that the transmission owners will not be required to bear this cost risk. A clear Commission statement to this effect is both necessary and appropriate, especially in light of the Commission's final rule on transmission pricing incentives in Order No. 679.

### **Commission Determination**

53. We disagree with PHI that PJM needs to amend its tariff to provide for cost recovery of abandoned facilities. As we stated in the Final Rule on Transmission Pricing Incentives, an applicant may request that 100 percent of prudently-incurred costs associated with abandoned transmission projects be included in transmission rates if such abandonment is outside the control of management.<sup>16</sup> There is no need to specify unique application procedures for this incentive, and the applicant only needs to make a section 205 filing for recovery of abandoned plant costs in rates at the time the project is abandoned.<sup>17</sup> These provisions apply to projects discussed in the present proposal.

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<sup>16</sup> *Promoting Transmission Investment through Pricing Reform*, Order No. 679, 71 Fed. Reg. 43294 (July 31, 2006), 116 FERC ¶ 61,057, at P 162 (2006).

<sup>17</sup> *Id.* at P 166.

## **7. Relationship with Midwest ISO and NYISO planning activities**

### **Comments and Protests**

54. WEPC is concerned about potential inconsistencies that may develop between the planning processes of the PJM and Midwest Independent Transmission System Operator (Midwest ISO). While PJM's proposal gives it broad discretion to determine if an economic project is approved and how it will be funded, Midwest ISO plans to apply a more prescriptive formula based on certain benefit metrics, with little further input. WEPC is concerned that the use of two distinct processes will needlessly result in a continued seams issue for the two RTOs. WEPC takes no position as to which process is preferable. However, WEPC states that it is unable to discern any regional difference that would justify the use of different processes for deciding whether economic transmission projects are built and how they are funded in PJM and the Midwest ISO. WEPC submits these distinctions could become especially problematic for cross-border projects.

55. PSEG has similar, but broader, concerns with regard to inconsistencies between PJM and New York Independent System Operator (NYISO). PSEG states that while the NYISO transmission planning process (like PJM's RTEP) provides for both market-based and regulated back-stop solutions for reliability transmission needs, the NYISO process does not include any economic planning process, unlike PJM's RTEP. PSEG argues that such divergent and inconsistent processes will further exacerbate existing seams. Specifically, PSEG states that the economic planning process in PJM will be affected by the draw that the New York City system has to the east of PJM, and that such draw will contribute to the signals that PJM will be relying upon to direct new transmission projects. PSEG argues that, under PJM's present proposal, NYISO customers will not pay for the economic transmission that PJM directs, despite the fact that it is being built, at least in part, to meet the economic needs of New York City. PSEG contends that this result is unjust and unreasonable.

### **Commission Determination**

56. Different market rules or procedures create seams when the difference makes trade across areas inefficiently more difficult or costly. In response to WEPC's comment, we do not see why differences in the metrics used in the planning processes of the PJM and MISO would make trade more difficult across the RTOs' common boundaries. In determining the appropriate metrics for planning, the relevant objective should be to ensure that the criteria used by each RTO results in efficient transmission expansions, based on an examination of the net social economic benefits. As we explain earlier in this order, we are accepting the additional metrics proposed by PJM while requiring PJM

to explain more fully how it will weigh, consider and/or combine the metrics in determining the net social economic benefits of projects.

57. PSEG's comments are more concerned with the proper allocation of PJM's expansion costs than with impeding efficient trade between PJM and New York. PJM's filing does not address cost allocation issues. PSEG's cost allocation concerns may be addressed at the time that an upgrade's cost allocation has been proposed. At that time, any interested party may argue to the Commission that the upgrade benefits one or more parties outside PJM and that a share of the associated costs should be assigned to those external parties.

## **8. Energy Policy Act of 2005 and the FPA**

### **Comments and Protests**

58. PSEG asserts that PJM's proposal is inconsistent with Energy Policy Act of 2005 (EPAcT 2005). Specifically, PSEG argues that EPAcT 2005 does not authorize the Commission to take steps to require or encourage rate-based regulated transmission projects to address economic issues. Instead, PSEG contends, EPAcT 2005 merely directs the Commission to create incentive-based rates to encourage transmission that benefits consumers through reliability and congestion relief, directs the Commission to encourage the development of advanced transmission technologies, and creates a carefully defined backstop authority for transmission projects to address the challenging siting issues that face transmission projects.

59. In addition, PSEG returns to its earlier arguments regarding vagueness and maintains that the standards proposed by PJM do not provide enough detail for the Commission to determine whether such standards are just and reasonable as required under the FPA.

### **PJM Response**

60. PJM responds that the new section 217 of the FPA, which was added by EPAcT 2005, requires the Commission to exercise its authority in a manner that facilitates the planning and expansion of transmission. PJM argues that load-serving entities' reasonable needs include expansion of the transmission system to reduce congestion and lower power costs, when economically justified.

61. In addition, PJM points to several provisions of the FPA as modified by EPAcT 2005 that relate to economic planning. For example, PJM notes that section 219 of the FPA not only directs the Commission establish incentive rates to ensure reliability, but to reduce the cost of delivered power by reducing transmission congestion. Ultimately,

PJM argues that the issue is not whether there should be an economic component to PJM's transmission planning process, but rather what that component should be.

### **Commission Determination**

62. PJM's proposal is not inconsistent with EPAct 2005 or the FPA. As both PSEG and PJM recognize, EPAct 2005 directs the Commission to create incentive-based rates to encourage the development of transmission and advanced transmission technology that benefits consumers through reliability and congestion relief.<sup>18</sup> Contrary to PSEG's assertion, the Commission's approval of PJM's economic transmission planning is entirely consistent with the mandates of EPAct 2005.

63. We have previously stated that PJM's regional transmission plan must provide authority for PJM to require upgrades both to ensure system reliability and to support competition.<sup>19</sup> Implicit in the job of ensuring reliability and competition is at least some kind of economic planning. We indicated as much in our *Order Granting PJM RTO Status* where we stated that PJM's plan should "enable PJM to (a) require the necessary additions to its TOs' systems to ensure reliability, and (b) identify transmission constraints and require new construction to address those constraints."<sup>20</sup>

64. The FPA, as amended by EPAct 2005, does not discourage the type of economic planning now proposed by PJM. To the contrary, the FPA directs the Commission to "promote reliable and economically efficient transmission."<sup>21</sup> Moreover, the FPA directs the Commission to exercise its authority "in a manner that facilitates the planning and expansion of transmission facilities to meet the reasonable needs of load-serving entities to satisfy the[ir] service obligations."<sup>22</sup>

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<sup>18</sup> 16 U.S.C. § 824s(b)(2006).

<sup>19</sup> *PJM Interconnection, LLC*, 101 FERC ¶ 61,345 (2002), at P 24 (*Order Granting PJM RTO Status*).

<sup>20</sup> *Id.*

<sup>21</sup> 16 U.S.C. § 824s(b)(1)(2006)(emphasis added).

<sup>22</sup> 16 U.S.C. § 824q(b)(4)(2006). The FPA further directs the Department of Energy to study transmission congestion and to designate as "national interest electric transmission corridors" any geographic area that is "experiencing electric energy transmission capacity constraint or congestion that adversely affects consumers." 16 U.S.C. § 824p(a)(2)(2006).

65. PJM's proposal takes into consideration long-standing congestion in its region as well as a lack of proposals by merchant transmission developers for large projects to mitigate long-term transmission problems.<sup>23</sup> PJM proposes yearly economic planning analysis that are subject to change should non-transmission solutions emerge.<sup>24</sup> PJM seeks to comply with the Commission's directive to ensure reliability (as mandated by EAct 2005) by directing development where market solutions are not forthcoming. Accordingly, PJM's guidelines fully comply with the FPA as amended by EAct 2005, and the Commission finds the proposal to be a just and reasonable approach at this time.

66. With regard to the arguments that the standards in PJM's proposal are too vague for the Commission to find that they are just and reasonable we believe that the general guidelines proposed by PJM allow flexibility in the dynamic environment within which transmission planning must occur. However, we will require PJM, as we stated above, to make a compliance filing clarifying the proposed congestion metrics and certain procedures for generation, demand response and merchant transmission participation.

## **9. Requests for Hearing**

### **Comments and Protests**

67. PSEG, PPL and LIPA request that PJM's proposal be set for hearing. PSEG argues that a hearing would ensure that the PJM market efficiency model is transparent, confined to the Commission approved documents and consistent with sections 205 and 206 of the FPA. PSEG further asserts that a hearing would address (a) assumptions that PJM intends to use in its analysis, (b) PJM's definition of economic constraint, (c) the actions to be taken by PJM after market efficiency analysis are performed, (d) the details of PJM's planned cost-benefit analysis and (e) the consequences of a bright line test. PPL argues that the impact of PJM's proposed economic expansions under the revised RTEP process on the competitive generation, transmission and demand response markets cannot be accurately determined without the development of a full evidentiary record. PPL maintains that a hearing will not result in undue delay. LIPA simply proposes a hearing as an alternative to rejecting PJM's filing.

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<sup>23</sup> PJM Answer at 7-8.

<sup>24</sup> PJM Initial Filing at 10.

### **PJM Response**

68. In its Answer, PJM argues that there is no basis to set this matter for hearing. PJM states that the protestors raise only policy matters rather than issues of law or fact.

### **Commission Determination**

69. The Commission need not conduct a hearing when there are no disputed issues of material fact.<sup>25</sup> Moreover, the Commission need not conduct a hearing if the issues raised may be adequately resolved on the written record.<sup>26</sup> In the instant case, the parties do not raise any issues of disputed material fact that would necessitate a hearing. We find that PJM's filing provides notice of criteria that PJM will use to plan to meet the reasonable needs of load-serving entities and leaves factual circumstances of particular upgrades, which may require a hearing, for the future. We believe that the written record in this action is sufficient for the resolution of all issues presently before the Commission. Accordingly, we deny the parties' request for a hearing.

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

(A) PJM's filing is hereby conditionally accepted effective September 9, 2006, as discussed in the body of this order.

(B) PJM is hereby directed to submit a compliance filing, within 120 days of the date of this order, as discussed in the body of this order.

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<sup>25</sup> *Woolen Mill Assocs. v. FERC*, 917 F.2d 589, 592 (D.C. Cir. 1990); *Pennsylvania Pub. Util. Comm'n v. FERC*, 881 F.2d 1123, 1126 (D.C. Cir. 1989).

<sup>26</sup> *See Louisiana Ass'n of Indep. Producers and Royalty Owners v. FERC*, 958 F.2d 1101, 1113-15 (D.C. Cir. 1992); *Bell Tel. Co. v. FCC*, 503 F.2d 1250, 1266 (3rd Cir. 1974)(noting that evidentiary hearings become "totally unmanageable" when parties attempt to cross-examine the large numbers of persons normally interested in the development of policy).

(C) PJM is hereby directed to submit status reports every 90 days, beginning 90 days after the date of this order, on the progress of any stakeholder discussions on cost allocation for economic projects and projects that combine economic and reliability elements.

By the Commission.

( S E A L )

Magalie R. Salas,  
Secretary.