

144 FERC ¶ 61,053
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Philip D. Moeller, John R. Norris,
Cheryl A. LaFleur, and Tony Clark.

PJM Interconnection, L.L.C.

Docket Nos. ER12-1204-003
ER12-1204-004
ER12-2391-002
ER12-2391-003
(not consolidated)

ORDER ON REHEARING AND COMPLIANCE

(Issued July 18, 2013)

1. In this order, we address compensation issues related to the provision of frequency regulation service, as provided by PJM Interconnection, L.L.C. (PJM). First, PSEG Companies (PSEG) seeks rehearing of a Commission order issued in this proceeding on November 16, 2012.¹ For the reasons discussed below, we deny rehearing of the November 16 Order. In addition, we address a compliance filing submitted by PJM on January 15, 2013. For the reasons discussed below, we accept PJM's compliance filing, subject to the submission of an additional compliance filing within 90 days of the date of this order.

I. Background

2. PJM instituted this proceeding to establish a revised compensation methodology governing the provision of frequency regulation service, as required by Order No. 755.² In Order No. 755, the Commission found that, while the resources relied upon by regional transmission operators (RTOs) and independent system operators (ISOs) to provide frequency regulation service differ in both their ramping ability and the accuracy

¹ *PJM Interconnection, L.L.C.*, 141 FERC ¶ 61,134 (2012) (November 16 Order).

² *Frequency Regulation Compensation in the Organized Wholesale Power Markets*, Order No. 755, FERC Stats. & Regs. ¶ 31,324 (2011), *order denying reh'g*, Order No. 755-A, 138 FERC ¶ 61,123 (2012).

with which these resources can respond to the system operator's dispatch signal, existing compensation policies failed to acknowledge these operational differences. Accordingly, Order No. 755 required each RTO/ISO to use market-based mechanisms to select and compensate frequency regulation resources based on a two-part payment methodology. Specifically, Order No. 755 required that a capacity payment be made to a resource to keep its capacity in reserve in the event that it is needed to provide real-time frequency regulation service. Second, Order No. 755 required that performance payments be made, that reflect the amount of work each resource performs in real-time in response to the system operator's dispatch signal.

3. PJM submitted its initial compliance filing in response to Order No. 755 on March 5, 2012. In its filing, PJM proposed to require frequency regulation resources to submit a two-part offer consisting of a capacity offer (which PJM's tariff calls a "capability" offer) and a performance offer. PJM also proposed that certain adjustments be made to each of these offers in calculating the Total Regulation Market Clearing Price. In particular, PJM proposed to adjust each capability and performance offer by a "benefits factor" in the clearing process.³ The benefits factor in clearing converts the megawatts (MW) of fast regulation into the units of slow regulation, which allows PJM to procure two units types (fast and slow) in a single market, with a single supply curve including both input types, with a single clearing price.⁴

4. PJM also proposed to adjust each capability and performance offer by a historic accuracy score to ensure that a cleared resource is able to provide the amount of frequency regulation service needed.

³ In this order, as explained below, the term "benefits factor" is used relative to both the clearing process (i.e., to PJM's initial compliance proposal) and the settlement process (i.e., to PJM's proposal to use a marginal benefits factor, as rejected by the Commission in the November 16 Order).

⁴ Under PJM's two-signal regulation system, as implemented in 2009, PJM utilizes a dynamic regulation, or Reg D, signal for fast-responding regulating resources with little or no physical characteristics that limit ramp rate, and a traditional regulation, or Reg A, signal for regulating resources with physical characteristics that limit ramp rate. PJM noted, in its initial compliance filing, that it would utilize the fast-responding Reg-D resource first, but then slowly reset to a mid-point as the slower resources respond, such that the resources can work together. The algorithm utilized by PJM will aim to procure 20 percent of PJM's regulation requirement from Reg D resources.

5. For settlement purposes, PJM proposed that a capability payment be made based on the capability clearing price and the amount of capability cleared. PJM proposed that performance payment be based on the highest adjusted performance offer of the resources that cleared the market. In addition, PJM proposed to calculate the performance payment based on the requested MW movement and the relevant resource's response to the regulation control signal.⁵

6. The Commission addressed PJM's filing in an order issued May 17, 2012.⁶ Among other things, the May 17 Order found that while there were advantages in using a benefits factor in the clearing process that would operate to adjust for the differences between resources,⁷ PJM had submitted insufficient information as to how such a benefits factor would be calculated.⁸ The May 17 Order further found that PJM had failed to explain whether the same factor would apply to all resource types or whether a different factor would be used for each resource's offer.⁹ Accordingly, the May 17 Order accepted PJM's use of a benefits factor in the clearing process, subject to the submission of an additional compliance filing. The Commission also required PJM to either explain why its compliance filing "provides a reasonable basis for paying for resources based on the actual service provided or to submit an additional compliance filing that proposes a reasonable method for paying resources based on mileage."¹⁰

⁵ PJM planned to adopt language at section 4.2 of Manual 28 that stated that, regulation performance would be measured by the mileage the resource is dispatched to provide.

⁶ *PJM Interconnection, L.L.C.*, 139 FERC ¶ 61,130 (2012) (May 17 Order).

⁷ The benefits factor, as explained *supra* P 3, creates a common basis for the clearing engine to consider the impact that each resource will have on system control. To create this common basis, PJM must translate the benefits factor from resources following the fast regulation signal into the benefits of a resource following the traditional regulation signal. It is the operational relationship between the traditional regulation signal and dynamic regulation signal. PJM then clears a single market with all types of resources included in the market.

⁸ May 17 Order, 139 FERC ¶ 61,130 at P 54.

⁹ *Id.*

¹⁰ *Id.* P 72.

7. PJM submitted its compliance filing in response to the May 17 Order on August 15, 2012. Among other things, PJM provided additional information regarding how the benefits factor would be calculated in setting the clearing price. PJM also proposed to eliminate from the performance payment provisions the use of mileage, given: (i) its clarification, on compliance, that under its initial proposal PJM would include each resource's mileage in the price formation used in the clearing process; and (ii) the ability of each resource that clears the market to recover its costs for movement in the performance payment, i.e., given PJM's proposal, submitted in a separate section 205 filing, to modify its settlement process (as summarized below).¹¹

8. In its section 205 filing, PJM asserted that to ensure that regulation resources (both Reg D resources and Reg A resources) are compensated on a uniform basis, additional tariff revisions would be required addressing PJM's settlement process. Specifically, PJM proposed to translate each fast-responding regulation resource's offered MWs into traditional MWs (i.e., to calculate the effective MWs representing the increased benefit to system control that a Reg D resource provides for the same capability that a Reg A resource provides) by adjusting the Reg D resource's total incremental cost by the unit-specific benefits factor, thereby decreasing the cost of a regulation resource in the commitment and pricing process when the benefits factor is above one. PJM referred to this adjustment as a marginal benefits factor and noted that the marginal benefits factor for Reg A resources would be set at one.

9. The Commission addressed PJM's compliance filing and related section 205 filing in the November 16 Order. Among other things, the Commission found that PJM provided sufficient information as to how the benefits factor would be calculated in calculating the clearing price.¹² However, the Commission found that PJM had not demonstrated that the benefits factor is a substitute for including actual mileage in the settlement process. Accordingly, the Commission rejected PJM's section 205 proposal to use a marginal benefits factor in the settlement process as unjust and unreasonable, unduly discriminatory, and contrary to Order No. 755. Specifically, the Commission found that, contrary to Order No. 755, PJM's proposal would allow resources to be paid on an unequal basis even when their performance is comparable.

10. The Commission also found that such an approach was unduly discriminatory, and that it could not otherwise be justified by the claim that it would allow PJM to avoid the

¹¹ PJM submitted its related section 205 proposal on August 2, 2012, in Docket No. ER12-2391-000, *et al.*

¹² November 16 Order, 141 FERC ¶ 61,134 at P 30.

need of introducing make-whole payments into its settlement process. Therefore, with respect to mileage assessments, the November 16 Order required PJM to explain whether its proposal to eliminate the use of mileage from its performance payment provisions satisfied Order No. 755's requirement that compensation for frequency regulation service be based on the actual service provided. In the alternative, the November 16 Order required PJM to submit a revised methodology that would measure regulation performance based on the mileage.¹³

11. Finally, the Commission rejected PJM's proposed use of the marginal benefits factor in the settlement of the capability credit, given that compensation for capability and performance are intrinsically tied.

II. Request for Rehearing

12. For the reasons discussed below, we deny PSEG's request for rehearing of the November 16 Order. PSEG asserts that the November 16 Order erred by "including the 'benefits factor' in the clearing process because its application: (i) is unjust and unreasonable and unduly discriminatory under the [FPA]; and (ii) has not been shown to be necessary to incentivize fast-responding resources nor has the magnitude of the incentives conferred been shown to be commensurate with the desired impact."¹⁴

13. PSEG's rehearing request is, in fact, an untimely and thus statutorily-barred request for rehearing of the earlier May 17 Order in which the Commission accepted the concept of using a benefits factor in the clearing process, subject to the requirement that PJM submit a compliance filing clarifying: (i) how the benefits factor in the clearing process would be calculated; and (ii) whether the same factor would apply to all resource types or whether a different factor would be used for each resource's offer.¹⁵ PJM's subsequent compliance filing satisfied these two limited obligations, as determined by the Commission in the November 16 Order. In so finding, the November 16 Order was not required to revisit – and did not reconsider or otherwise address -- the broader determinations made in the May 17 Order. Having failed to seek rehearing of the May 17 Order, PSEG cannot challenge, here, that order's acceptance of the benefits factor as an adjustment applicable to the calculation of the clearing price.

¹³ *Id.* P 45 and P 47.

¹⁴ PSEG rehearing request at 3 (statement of issues).

¹⁵ May 17 Order, 139 FERC ¶ 61,130 at P 54; *see* 16 U.S.C. § 8251(a) (2006); *accord* *PJM Interconnection, L.L.C.*, 132 FERC ¶ 61,222, at PP 23-25 (2010).

14. PSEG's request for rehearing of the November 16 Order, moreover, does not directly challenge the November 16 Order's limited findings. Specifically, PSEG does not directly challenge, or address, the November 16 Order's finding that "PJM provides sufficient information as to how the benefits factor will be calculated."¹⁶ Nor does PSEG directly challenge, or address, the Commission's finding that PJM had demonstrated how the benefits factor in the clearing process would be applied, i.e., that "each resource will be assigned a unit-specific benefits factor based on its order in the merit stack for the applicable regulation signal."¹⁷

15. Even assuming that the limited compliance issues before the Commission in the November 16 Order could be construed expansively to encompass the issues raised by PSEG on rehearing, we reject PSEG's assertions of error on the merits. First, we reject PSEG's argument that, to apply a benefits factor in the clearing process reflecting a fast-responding resource's accuracy and speed, while then compensating a resource in the settlement process based on its accuracy and performance essentially rewards these same characteristics, and thus gives these resources an unwarranted double credit. As PJM explains, the benefits factor is designed to create a common basis for the clearing engine to consider the impact that each resource will have on system control.

16. The benefits factor, moreover, operates in a way that distinguishes between a MW of frequency regulation service provided by a traditional slower-responding resource, and a MW of frequency regulation service provided by a faster-responding resource. The benefits factor thus allows PJM to rank faster-responding resources relative to slower-responding traditional resources in the regulation supply stack used in resource selection. This "apples-to-apples" comparison will ensure the appropriate balance of resources and will allow uniform clearing prices to be set for all resources.¹⁸ By contrast, PJM's accuracy and performance scores measure a regulation resource's response to the dispatch signal. As such, the use of a benefits factor adjustment in the clearing process does *not* operate as a double credit in the settlement process because, there, resources are paid for performance.

¹⁶ November 16 Order, 141 FERC ¶ 61,134 at P 30. In summarizing PJM's compliance filing explanation of how the benefits factor in the clearing process will be calculated, the November 16 Order noted, among other things, that PJM had proposed a new tariff provision clarifying how it would calculate the benefits factor, including its reliance on an "Effective MW" calculation. *Id.* P 28.

¹⁷ *Id.*

¹⁸ May 17 Order, 139 FERC ¶ 61,130 at P 44.

17. Finally, we reject PSEG's characterization of the benefits factor in the clearing process as an incentive rate subject to the Commission's incentive rate policies.¹⁹ The benefits factor does not seek to create an incentive to employ a particular resource. Rather, as discussed above, it reflects performance differences between resources that are relevant to the amount of frequency regulation each resource is selected to provide.

III. Compliance Filing

A. November 16 Order

18. The November 16 Order generally accepted PJM's August 15, 2012 compliance filing, as noted above, subject to the submission of an additional compliance filing addressing: (i) mileage assessments, i.e., Order No. 755's requirement that a tariff that provides for the compensation of frequency regulation service do so based on the actual service provided;²⁰ (ii) tariff language incorporating the provisions of Manual 12, section 4.5.6, describing how each component of the accuracy score, or component scalars, as reflected in Order No. 755's required performance payment, will be calculated;²¹ and (iii) the correction of an inadvertent formula error.²²

B. PJM's Proposal

19. PJM states that its compliance proposal satisfies the requirements of the November 16 Order. First, PJM states that it has complied with the Commission's directives by: (i) deleting from Schedule 1, section 3.2.2(g), (h), and (j) of its Operating Agreement the requirement that a marginal benefits factor be used in the settlement process for both the performance and capacity payment; and (ii) adding new language stating that each resource that provides regulation service will be credited for regulation performance by multiplying the resource's assigned MWs by the performance regulation market-clearing price, as adjusted by a mileage ratio, and the regulation resource's

¹⁹ PSEG rehearing request at 8 (citing *Incentive Ratemaking for Interstate Natural Gas Pipelines, Oil Pipelines, and Electric Utilities*, 61 FERC ¶ 61,168, at 61,594 (1992)).

²⁰ November 16 Order, 141 FERC ¶ 61,134 at P 46 (citing Order No. 755, FERC Stats. & Regs. ¶ 31,324 at reg. text, § 35.28).

²¹ *Id.* P 25.

²² *Id.* P 48.

accuracy score.²³ PJM proposes that its mileage ratio be formulated as: the requested mileage for the regulation dispatch signal assigned to the regulation resource divided by the regulation dispatch signal assigned to the traditional resources.²⁴

20. PJM asserts that under a design construct where all mileage is considered equivalent, changes to its initial proposal are required to ensure that performance compensation will remain proportional to the actual requested mileage for each resource type. PJM explains that this is so because in order to accurately compare all resources in the clearing process, every MW of faster-responding resource will be translated into terms of MW of traditional resource and every MW (and its associated miles) will be sold as a Reg A equivalent. PJM states that, given this clearing procedure, a corresponding mechanism is required to convert the work done by the fast-responding (Reg D) resources back into the Reg D MWs (and associated miles) for purposes of settlement. PJM states that its proposed mileage ratio accomplishes this objective. PJM adds that the total mileage of the traditional regulation signal is chosen in the denominator because the unit-specific benefits factor used in the clearing process treats all resources as a single resource type, i.e., as a traditional resource.

21. PJM also states that it has struck its earlier-proposed tariff language applying a marginal benefits factor in the regulation performance settlement equation, at section 3.2.2(g) of Schedule 1. In addition, PJM states that it has complied with the November 16 Order's requirement to submit tariff language incorporating the provisions of Manual 12, section 4.5.6 into its tariff. Specifically, PJM proposes to adopt this language at Schedule 1, section 3.2.2.(k) of its Operating Agreement. PJM states that it has also complied with the November 16 Order's requirement that PJM correct the formula error, at Schedule 1, section 3.2.2A.1(b)(i) of its Operating Agreement, regarding the calculation of its historical accuracy score.

22. Finally, PJM requests that the Commission treat this compliance proceeding as open and subject to reconsideration, based on PJM's concerns with the compliance model established by the Commission in the November 16 Order. Treating this proceeding as

²³ We refer to this ratio in this order as a "mileage ratio," and not a "scalar adjustment" (the term used by PJM in its transmittal letter), or a "settlement ratio," as used by PSEG in its protest, as discussed below. A "mileage ratio," in fact, accurately describes PJM's proposed language in Operating Agreement Schedule 1, section 3.2.2(g) and the parallel provision of the PJM Open Access Transmission Tariff (OATT).

²⁴ See proposed Operating Agreement at Schedule 1, section 3.2.2(g) and the parallel provision in the OATT.

open would allow PJM to file further revisions to its tariff as it thought necessary. Specifically, PJM questions the November 16 Order's rejection of PJM's proposed use of a marginal benefits factor in the settlement process. PJM argues that a market structure without the marginal benefits factor is not sustainable, resulting in either over- or under-compensation of resources.²⁵

C. Notice of Filing and Responsive Pleadings

23. Notice of PJM's compliance filing was published in the *Federal Register*, 78 Fed. Reg. 6,141 (2013), with interventions and protests due on or before February 5, 2013. Protests and/or comments were timely-filed by PSEG, the Electricity Storage Association (ESA), Beacon Power, LLC (Beacon Power) and VCharge Inc. (VCharge). Late-filed comments were submitted on February 7, 2013 by Monitoring Analytics, LLC, acting as PJM's independent market monitor (IMM). Answers to protests and comments and/or answers to answers were filed by Beacon Power, ESA, and AES Energy Storage, LLC (AES), on February 20, 2013, and by PJM, on February 25, 2013.

1. Protests and Comments

24. Beacon Power and ESA support PJM's mileage assessment proposal, including PJM's proposed mileage ratio, as consistent with the requirements of Order No. 755. Beacon Power and ESA assert that, under these proposed revisions, mileage will be appropriately reflected in the performance payment settlement, as the November 16 Order requires.

25. PSEG protests PJM's mileage assessment proposal, arguing that while PJM's proposed mileage ratio can be expected to pay the *marginal* Reg D unit accurately, all other Reg D resources will either be overpaid or underpaid. PSEG requests that PJM be required to develop a methodology that will pay each Reg D resource for its actual mileage. PSEG claims that this could be accomplished by developing a mileage rate stated in terms of dollars per unit of change.

26. The IMM argues that PJM's performance settlement proposal should be rejected, given the erroneous assumptions and conclusions reflected in the underlying compliance mandate. The IMM requests the establishment of a technical conference to reconsider these findings and requirements. Similarly, ESA and AES raise concerns regarding the removal of the marginal benefits factor in settlement. ESA asserts that the removal of the benefits in settlement of the capability credit will result in under-compensation of fast-

²⁵ See PJM compliance filing at 10-11.

responding resources. AES argues that removing the marginal benefits factor in settlement does not provide fair compensation to fast-responding resources.

2. Answers

27. Beacon Power and ESA respond to PSEG's argument that use of PJM's proposed mileage ratio in the performance settlement fails to comply with the requirements of the November 16 Order. Beacon Power and ESA argue that, consistent with the November 16 Order and Order No. 755, it is appropriate that resources that follow the fast-changing Reg D signal receive a payment for performance that reflects the additional quantity of movement that may be required of the Reg D signal relative to the slower Reg A signal. Beacon Power and ESA add that, under PJM's proposal, the performance price is paid uniformly, while the performance payment to each resource is paid based on its actual movement. Beacon Power and ESA argue that, if the mileage ratio were eliminated from the formula, as PSEG proposes, both resources would be paid the same total dollars for performance even though the resource following the Reg D signal was being asked to provide a higher quantity of frequency regulation. Beacon Power and ESA argue that such an outcome would violate Order No. 755's requirement that the performance payment reflect the quantity of frequency regulation service provided by a resource.

28. Beacon Power and ESA also argue that multiplying by a mileage ratio in the settlement (instead of the total mileage in each signal) is necessary, given that the performance clearing price already includes the price for providing the amount of movement in the Reg A signal. Beacon Power and ESA assert that the use of the mileage ratio, in place of the total mileage, ensures that the mileage is not double counted in the performance settlement. Beacon Power and ESA also challenge PSEG's claim that using both the mileage ratio and the accuracy score in calculating the performance payment, as PJM proposes, will result in double payments. Beacon Power and ESA argue, to the contrary, that the accuracy score measures how accurately each regulation resource follows its regulation signal, regardless of whether it is following the fast or slow signal, while the mileage ratio reflects the quantity of regulation service provided. Therefore, Beacon Power and ESA assert that while a resource following the Reg A signal and a resource following the Reg D signal can *both* have an accuracy score of 100 percent, the Reg D resource may be providing more movement.

29. AES, in its answer, supports the comments submitted by the IMM and supports PJM's request to treat its compliance obligations, in this proceeding, as open and subject to reconsideration, or in the alternative subject the outcome of a technical conference proceeding.

30. PJM, in its answer, responds to PSEG's argument that PJM's performance settlement proposal fails to comply with the November 16 Order. PJM asserts that its proposal fully complies, given that PJM uses the requested mileage from each interval to

determine the performance clearing price. PJM argues that this will ensure that the clearing price reflects the actual mileage of the marginal resource for each interval. PJM also reiterates its need for a mileage ratio, based on the mileage of the assigned resource divided by the mileage of the traditional regulation signal to provide uniform compensation for each increment of requested movement. PJM asserts that the purpose of the mileage ratio is to ensure that the mileage is not double counted in the performance settlement. PJM adds that without the mileage ratio, regulation resources would be compensated based only on the MWs of regulation capability and would not receive compensation proportional to the requested mileage. Finally, PJM states that its compliance with the November 16 Order notwithstanding, PJM supports the IMM's request for the establishment of a technical conference to reconsider the Commission's compliance mandates.

D. Procedural Matters

31. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2012), prohibits an answer to a protest and an answer to an answer unless otherwise ordered by the decisional authority. We will accept the answers filed by Beacon Power, AES, ESA, and PJM because they have provided information that assisted us in our decision-making process, and we also accept the late-filed comments submitted by the IMM.

E. Commission Determination

32. Except as otherwise noted below, we find that PJM's compliance filing satisfies the requirements of the November 16 Order. We also address a threshold argument made by PJM, the IMM and others, regarding the asserted need for additional procedures in this case to reconsider the findings made by the Commission in the November 16 Order regarding the use of a marginal benefits factor in the settlement process.

33. We reject the argument that additional procedures are required to address the use of a marginal benefits factor in the settlement process as beyond the scope of this compliance proceeding. Parties seeking to challenge PJM's compliance obligations, as established in the November 16 Order, including the Commission's rejection of PJM's proposal to include a marginal benefits factor in the settlement process, had the opportunity to do so by seeking timely rehearing of the November 16 Order. However, no such requests for rehearing were filed, other than PSEG's request addressed above, regarding the use of a benefits factor in the clearing process – a separate issue, as raised by the May 17 Order. Accordingly, we will not reconsider here, in a compliance proceeding, the November 16 Order's rejection of PJM's proposed use of a marginal benefits factor in the settlement process. If PJM and its stakeholders believe additional revisions are needed, the appropriate forum to consider these revisions is in a new section 205 proceeding.

34. Nevertheless, given the early stages of implementation of the market changes, we accept PJM's proposal to submit a report on the status of its regulation market²⁶ and direct PJM to file an informational report in one year.

35. PJM submitted a compliance filing that proposes a method for paying resources based on mileage. PJM proposes to credit each resource for providing regulation service by "multiplying the assigned MW(s) by the performance Regulation market-clearing price, by the ratio between the requested mileage for the Regulation dispatch signal assigned to the Regulation resource and the Regulation dispatch signal assigned to traditional resources, and by the Regulation resource's accuracy score[.]"²⁷ With the one revision discussed below, we find that PJM's proposal is a just and reasonable method of compensating regulation resources given the need to accommodate different resources with different characteristics. Fast responding resources can provide more mileage than traditional resources, and depending on circumstances, fast responding resources provide more benefit to the system than traditional resources. PJM established two dispatch signals to accommodate these differences.²⁸

36. In PJM's Order No. 755 compliance, it proposed to measure the benefits provided by resources to its system by means of a benefits factor in the clearing process. PJM assigned a benefits factor to the different resources and adjusted the bids of fast responding resources (\$/MW of movement) using the benefits factor to reflect those benefits. We find it reasonable, therefore, in determining resource payment for PJM to include a ratio that adjusts (increases) the price paid to fast responding resources based on the amount of mileage they provide. Otherwise, the bids of fast responding resources would be reduced during the bidding process and there would be no commensurate increase in the price paid to those resources to compensate for actual movement provided.

37. PSEG, ESA, and AES protested PJM's filing arguing that in some circumstances it may underpay fast responding resources or overpay them. None of the protesters provide any data or analysis to show that such results would be systematic. For the reasons discussed above, we find that PJM's proposal is reasonable. To the extent that the proposal may result in a payment to certain resources that do not cover the resource's

²⁶ PJM's Transmittal Letter at 12.

²⁷ See proposed Operating Agreement at Schedule 1, section 3.2.2(g) and the parallel proposed provisions of the OATT.

²⁸ PJM developed its new regulation control signal in 2009, referred to as the dynamic regulation signal (Reg D), to complement the traditional regulation signal (Reg A).

costs, PJM's tariff includes a make-whole payment to ensure that no resource is forced to operate at a loss.²⁹ Regarding over-compensation, the PSEG has neither demonstrated when overcompensation occurs nor how it ought to be measured. The fact that a resource may receive payment greater than its costs is consistent with the Order No. 755 requirement that RTOs calculate a single clearing price applicable to all resources.³⁰ PJM determines the clearing price based on the cost of the most expensive resource selected. All resources with lower costs receive compensation greater than those costs.

38. However, in one respect identified by PSEG in its protest, we find that PJM's proposal fails to comply with the November 16 Order and Order No. 755, i.e., by failing to include *actual* mileage in the settlement formula. Proposed section 3.2.2(g) shows the numerator of the newly proposed mileage ratio as "the *requested* mileage for the Regulation dispatch signal assigned to the Regulation resource." A compensation method that relies on "requested" mileage, however, fails to satisfy the requirement that PJM use actual mileage or provide an explanation demonstrating that the numerator in the mileage ratio is the resource's actual mileage. Accordingly, we require PJM to submit an additional compliance filing, within 90 days of the date of this order, substituting in the numerator of its mileage ratio, at Schedule 1, section 3.2.2(g) of the Operating Agreements and parallel provision of the PJM OATT, "the actual mileage of the assigned resource," in place of "the requested mileage for the Regulation dispatch signal assigned to the Regulation resource."

39. PSEG argues that PJM's proposed use of a mileage ratio in the settlement process is inconsistent with the November 16 Order's rejection of the use of a marginal benefits factor in the settlement process. PSEG asserts that the mileage ratio inappropriately incorporates a "benefits factor lite" disguised as compliance.

40. We disagree that the ratio proposed by PJM is the equivalent of the marginal benefits factor rejected by the Commission in the November 16 Order as inconsistent with Order No. 755. The marginal benefits factor was appropriately rejected by the November 16 Order given the failure of that proposal to ensure that the performance payment would be paid uniformly based on the actual up and down movement within the hour. By contrast, the use of a mileage ratio in settlement, with the modification as directed herein, will appropriately ensure that resources providing the same amount of regulation will receive the same compensation and that those resources that perform

²⁹ See, e.g., Operating Agreement at Schedule 1, section 3.2.2(b) and the parallel provisions of the OATT.

³⁰ Order No. 755, FERC Stats. & Regs. ¶ 31,324 at P 131.

different amounts of service will receive different compensation. As such, we find that this mileage ratio adjustment to the payment for fast responding resources is necessary to reflect the fact that the bids of these resources have been reduced to reflect their benefit to the system.

41. This change is also consistent with PJM's initial compliance proposal and the Commission's prior orders, in this proceeding, requiring PJM to pay based on actual mileage. In the May 17 Order, the Commission accepted PJM's proposal to measure regulation performance by the actual mileage the resource is dispatched to provide (a requirement that PJM proposed to include in its manuals). The May 17 Order, however, required PJM to incorporate this requirement into its tariff.³¹ Instead, PJM proposed, on compliance, to eliminate actual mileage from the performance payment settlement, as supported by PJM's section 205 tariff filing.

42. In the November 16 Order, the Commission rejected the use of a marginal benefits factor in settlement, but required that PJM submit a compliance filing that either: (i) explains why its original Order No. 755 compliance filing provides a reasonable basis for paying for resources based on the actual service provided or (ii) proposes an alternative reasonable method for paying resources based on mileage.³² PJM submitted its proposed mileage ratio, on compliance, as a method for compensating resources based on mileage and we find that this proposal is just and reasonable, subject to conditions, because the mileage ratio, with the revisions discussed herein, will measure performance by the actual mileage.

43. PSEG contends that the mileage ratio should be eliminated. Eliminating the mileage ratio, as proposed by PSEG, however, would not allow for payment on the basis of actual mileage as required by Order No. 755. Given that the November 16 Order did not prescribe any specific method, PJM was permitted to comply by proposing the use of a mileage ratio in the settlement process.

44. We reject PSEG's argument that the use of the mileage ratio and the accuracy score will result in double payments. The use of a mileage ratio, changed as directed herein, will reflect the actual up and down movement that a regulation resource provides. However, the accuracy score reflects a regulation resource's accuracy in increasing or decreasing its output to provide frequency regulation service in response to PJM's dispatch signal – regardless of whether the resource follows the Reg A or Reg D signal. Since the accuracy score can never exceed one, it cannot raise compensation above the

³¹ May 17 Order, 139 FERC ¶ 61,130 at P 72.

³² November 16 Order, 141 FERC ¶ 61,134 P 47.

clearing price, although compensation could be adjusted downward for less accurate response to the dispatch signal. Similarly, the accuracy score cannot substitute for the mechanism needed to re-translate fast resource's bids that were reduced in the clearing process by the benefits factor. Therefore, we cannot find a basis to determine that PJM's approach will result in double counting.

The Commission orders:

(A) Rehearing of the November 16 Order is hereby denied as discussed in the body of this order.

(B) PJM's compliance filing is hereby accepted, subject to conditions and the submission of an additional compliance filing within 90 days of the date of this order, as discussed in the body to this order.

(C) PJM is directed to make an informational filing as discussed herein.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.