

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

PJM Interconnection, L.L.C.)

Docket No. EL08-47-006

**ANSWER OF PJM INTERCONNECTION, L.L.C. TO COMMENTS,
AND
MOTION TO ANSWER AND ANSWER TO PROTESTS**

PJM Interconnection, L.L.C. (“PJM”), pursuant to Rules 212 and 213 of the Federal Energy Regulatory Commission’s (“Commission”) Rules of Practice and Procedure, 18 C.F.R. §§ 385.212 and 385.213, hereby files this Answer to the comments and protests¹ filed by The Dayton Power and Light Company and Shell Energy North America (US), L.P. (“Dayton”); Calpine Corporation (“Calpine”); Mirant Energy Trading, LLC, Mirant Mid-Atlantic, LLC, Mirant Chalk Point, LLC and Mirant Potomac River, LLC (“Mirant”); and Monitoring Analytics LLC, PJM’s Independent Market Monitor (“IMM”) on August 2, 2010 in this docket.

BACKGROUND

On July 31, 2009, in compliance with the Commission’s February 19, 2009 Initial Order on Market Power Mitigation Provisions and Establishing Procedures² and its

¹ PJM seeks leave to answer the protests and comments filed in this case, to assist the Commission’s decision-making process and clarify the issues. Rule 213(a)(2) of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2008), do not permit answers to protests unless otherwise ordered by the decisional authority. The Commission has made exceptions, however, where an answer clarifies the issue or assists the Commission in its decision-making process, in creating a complete record. *See, e.g., PJM Interconnection, L.L.C.*, 127 FERC ¶ 61,197 (2009); *PJM Interconnection, L.L.C.*, 127 FERC ¶ 61,016 (2009); *PJM Interconnection, L.L.C.*, 126 FERC ¶ 61,280 (2009); *PJM Interconnection, L.L.C.*, 127 FERC ¶ 61,017 (2009). In this answer, PJM provides the Commission with information useful to the Commission in its decision-making process and will assist in developing a more complete and accurate record. Therefore, this answer should be permitted.

² *PJM Interconnection, L.L.C.*, 126 FERC ¶ 61,145 (2009) (“February 19th Order”).

Order on Clarification issued on May 28, 2009,³ PJM filed revisions to the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. (“Operating Agreement”) and the parallel provisions of Attachment K - Appendix of the PJM Open Access Transmission Tariff (“Tariff”). The proposed revisions explicitly provide for the inclusion of opportunity costs in the cost-based offers submitted to PJM for energy-limited and environmentally-limited resources (“Energy Market Opportunity Costs”) as well as other minor clarifications (“Initial Compliance Filing”). Numerous intervenors filed comments or protests in response to the Initial Compliance Filing on August 31, 2009, some of which PJM responded to in its Reply to Protests and Comments filed on September 21, 2009.

On March 23, 2010, the Commission issued an Order on Compliance Filing⁴ in which it determined that PJM’s proposed Tariff and Operating Agreement revisions did not “provide sufficient detail to establish a just and reasonable methodology for including opportunity costs in mitigated rates.”⁵ Therefore, the Commission determined that it could not accept the Initial Compliance Filing.⁶ Consequently, the Commission required that PJM file additional revisions to “describe the methodology for calculating opportunity costs”⁷ and “provide a mechanism by which opportunity costs can be included in mitigated bids in order to eliminate the need to evaluate the opportunity cost

³ *PJM Interconnection, L.L.C.*, 127 FERC ¶ 61,188 (2009) (“May 28th Order”) at P 7.

⁴ *PJM Interconnection, L.L.C.*, 130 FERC ¶ 61,230 (2010) (“March 23rd Order”).

⁵ March 23rd Order at P 16.

⁶ *Id.*

⁷ *Id.* at P 17.

of resources on a case-by-case basis.”⁸ PJM supplemented its Initial Compliance Filing as directed on April 22, 2010 (“Supplemental Compliance Filing”).

Furthermore, as required by the February 19th Order, May 28th Order and March 23rd Order,⁹ PJM submitted an additional compliance filing to incorporate a second set of proposed revisions to address other types of opportunity costs, “Non-Regulatory Opportunity Costs,” on July 1, 2010 (“Non-Reg Compliance Filing”). On August 2, 2010, Dayton, Calpine, Mirant and the IMM submitted their comments and protests in response thereto. Calpine’s comments fully supported the Non-Reg Compliance Filing, while the filings of Dayton, Mirant and the IMM supported the Non-Reg Compliance filing, subject to certain conditions.

In that regard, the basis for Dayton and Mirant’s limited protest is that PJM’s proposal did not permit engineering analyses to be utilized as evidence to substantiate a request for Non-Regulatory Opportunity Costs.¹⁰ Mirant also averred that PJM erroneously described the remaining issues that stakeholders voted to continue discussing in an ongoing stakeholder process.¹¹ In addition, Dayton requested that the Commission approve the PJM proposal, but also recognize that if further analyses of issues being discussed in the ongoing stakeholder process determine that an adjustment to the PJM proposal is appropriate, then PJM should be allowed to propose

⁸ *Id.* at P 22.

⁹ February 19th Order at P 48; May 28th Order at P 7; and March 23rd Order at P 21.

¹⁰ Motion to Intervene and Limited Protest of Mirant Parties (“Mirant Limited Protest”) at 9-13; Comments of Dayton Power and Light Company and Shell Energy North America, L.P. (“Dayton Comments”) at 5.

¹¹ Mirant Limited Protest at 9-13.

that adjustment, and the Commission accept that adjustment, “without requiring a finding that the then existing method be found unjust and unreasonable.”¹²

The IMM, on the other hand, requests that the Commission approve PJM’s Supplemental Compliance Filing and its Non-Reg Compliance Filing, subject to modifications proposed by the IMM.¹³ The modifications proposed by the IMM include deleting PJM’s proposed revision to the Operating Agreement to allow for an alternative method for calculating opportunity costs if the standard methodology does not “accurately represent the Market Participant’s Energy Market Opportunity Cost,”¹⁴ incorporating language that “would capture the Market Monitor’s role in advance review and verification” of requests for opportunity costs,¹⁵ deleting “start time” as a component of the definition of Non-Regulatory Opportunity Cost,¹⁶ and redefining the standard for a fuel supply limitation.¹⁷ The IMM also requests that the Commission reject PJM’s “proposal to excuse units that self schedule below an arbitrary level from forced outages.”¹⁸

ANSWER

A. Engineering Analysis as Evidence of Non-Regulatory Opportunity Cost.

In response to the comments/protests that allege that PJM should have incorporated language in its proposed Tariff and Operating Agreement revisions to allow

¹² Dayton Comments at 8.

¹³ Comments of the Independent Market Monitor in Response to PJM’s Compliance Filing (“IMM Comments”) at 4.

¹⁴ *Id.* at 12-17.

¹⁵ *Id.* at 17-18, 22-24.

¹⁶ *Id.* at 26-27.

¹⁷ *Id.* at 29-33.

engineering analyses to substantiate the recovery of Non-Regulatory Opportunity Costs, PJM's stakeholders voted to defer this issue for further discussion rather than incorporating it into the Non-Regulatory Compliance Filing.¹⁹ The reason stakeholders sought to defer the issue for further discussion was that some stakeholders did not believe the engineering analysis should be sufficient evidence to substantiate Non-Regulatory Opportunity Costs because whether the analysis is completed by the internal engineering staff of an entity that owns or controls a generating unit or by an outside third party engineer who was hired by an entity that owns or controls a generating unit, for the right price, an entity that owns or controls a generating unit could find an engineer to come to whatever determination they want, whether or not the recovery of opportunities is really justifiable. For this reason, PJM respectfully requests that the Commission not preempt stakeholder discussions of the issue by ordering PJM to revise its Operating Agreement to allow engineering analyses to substantiate the recovery of Non-Regulatory Opportunity Costs.

B. PJM's Proposal to Allow for an Alternative Method for Calculating Opportunity Costs.

1. PJM's proposal eliminates the need to evaluate opportunity costs on a case-by-case basis.

The IMM takes another opportunity to allege that PJM's proposed revision to PJM Manual 15, to incorporate a sentence which provides that "a Market Participant may submit a request to PJM for consideration and approval of an alternative method of calculating its Energy Market Opportunity Cost if the standard methodology described herein does not accurately represent the Market Participant's Energy Market

¹⁸ *Id.* at 38-39.

Opportunity Cost,”²⁰ is contrary to the Commission’s requirement that PJM “provide a mechanism by which opportunity costs can be included in mitigated bids in order to eliminate the need to evaluate the opportunity costs of resources on a case-by-case basis.”²¹

In its Supplemental Compliance Filing, PJM explained that it interpreted the Commission’s statements in the February 19th Order that “because default bids do not clearly and explicitly provide for the inclusion of opportunity costs . . . the mitigation measures related to determining default bids are unjust and unreasonable,”²² and its additional requirement in the March 23rd Order that PJM “provide a mechanism by which opportunity costs can be included in mitigated bids in order to eliminate the need to evaluate the opportunity cost of resources on a case-by-case basis,”²³ to mean that the Commission wants to eliminate case-by-case determinations of whether a particular type of cost will be deemed to be an opportunity cost and therefore recoverable, not that the Commission was seeking to eliminate case-by-case determinations of how opportunity costs must be calculated. Based on this interpretation, PJM proposed to utilize a standard method of calculation of all Energy Market Opportunity Costs, set forth in Manual 15, but also allowed for the flexibility to deviate from this standard method if a Market Participant requests, and PJM approves, an alternative method of calculation.²⁴ The basis for the flexibility in the calculation methodology, as PJM noted in its

¹⁹ Non-Reg Compliance Filing at 9-10.

²⁰ Supplemental Compliance Filing at 11-12.

²¹ IMM Comments at 12-17; March 23rd Order at P 22.

²² February 19th Order at P 42.

²³ March 23rd Order at P 22; see also February 19th Order at PP 42, 47, 48.

²⁴ Supplemental Compliance Filing at 9-11.

Supplemental Compliance Filing, is that there are limited circumstances in which a “one size fits all” methodology for calculating Energy Market Opportunity Costs may not be suitable or equitable for all energy-limited or environmentally-limited resources.²⁵

That being said, PJM does not seek to allow itself open ended discretion to consider alternative methods of calculating opportunity costs. Rather, the intent of the proposed revision to Manual 15 was to allow PJM to establish an appropriate method of calculating opportunity costs for generating units for which the standard calculation cannot be applied. Here, the standard calculation of opportunity costs is a unit-specific calculation. Therefore, it can’t be used to calculate opportunity costs for generating units subject to restrictions imposed on a fleet-wide basis rather than on a unit-specific basis, for example.²⁶ In limited circumstances such as this, PJM believes that such a generation unit owner should have the ability to negotiate with PJM a calculation specific to that particular generation owner or generation resource.²⁷ In the alternative, the generating unit owner could seek Commission approval of a different calculation methodology.

PJM believes the same standard method of calculation proposed in Manual 15 is appropriate to calculate Non-Regulatory Opportunity Costs. However, PJM does not believe that an alternate method of calculating Non-Regulatory Opportunity Costs is

²⁵ See Supplemental Compliance Filing at n. 35 (“Currently in PJM there are generating units for which the recovery of opportunity costs related to externally imposed energy and/or environmental restrictions have been approved, but pursuant to a methodology for the calculation of opportunity costs that is different than the methodology proposed by PJM in this compliance filing. The generating units in question are subject to restrictions imposed on a fleet-wide basis rather than on a unit-specific basis, and therefore the standard methodology that PJM proposes to calculate unit-specific opportunity costs would not accurately represent that Market Participant’s opportunity costs. This is an example of a situation in which PJM would consider and possibly approve an alternative methodology for calculating opportunity costs.”)

²⁶ *Id.*

necessary because unlike Energy Market Opportunity Costs for which a governmental entity may impose restrictions on generating units other than a unit-specific basis, i.e. a fleet-wide restriction, PJM could not think if a restriction imposed on generating units based on a manufacturer's recommendation or a fuel limitation that would be applied on anything other than a unit-specific basis. Therefore, there is currently no recognized alternative to the proposed, standard methodology of calculation for Non-Regulatory Opportunity Costs.

2. PJM's refusal to file stakeholder proposal to give it the flexibility to accept "opportunity costs in circumstances outside of the bright line test subject to PJM and MMU oversight" is consistent with PJM's Supplemental Compliance Filing.

The IMM avers that PJM "had second thoughts" on the issue of the methodology for calculating Non-Regulatory Opportunity Costs because in its Non-Reg Compliance Filing "PJM specifically declines to adopt a similar measure for subjective case-by-case determination of Non-Regulatory Opportunity Costs adders."²⁸ The IMM's allegation is based on PJM's determination²⁹ that it was inappropriate to request approval of the request of some stakeholders of other categories of "opportunity costs in circumstances outside of the bright line test subject to PJM and MMU oversight"³⁰ for which generators requesting approval would submit documentation, to the IMM for review and to PJM for approval, evidencing the operating limitation, a mitigation plan

²⁷ *Id.* at 11.

²⁸ IMM Comments at 12-13.

²⁹ Non-Reg Compliance Filing at 9-11.

³⁰ See <http://www.pjm.com/~media/committees-groups/committees/mrc/20100623/20100623-item-04-pjm-icc-alternate-proposal-as-amended.ashx> ("ICC Proposal") at 6.

and the proposed methodology to be used to determine the amount of opportunity costs that should be applied.³¹

Again, the confusion here stems from a misinterpretation of what PJM has proposed. The stakeholder proposal referenced by the IMM clearly involves giving the IMM and PJM the discretion to approve opportunity costs that are not specifically defined in Schedule 2 of the Operating Agreement. Nowhere has PJM proposed that it have the discretion to approve of opportunity costs that are not specifically defined in the Operating Agreement. Rather, the limited case-by-case determination that PJM understands to be appropriate is one that would allow PJM to utilize a different method of calculating opportunity costs than that which is specifically set forth in Manual 15. Therefore, PJM's determination that it was inappropriate to file the requested revision proposed by the stakeholders is consistent with PJM's Supplemental Compliance Filing.

C. IMM's Role in Reviewing Requests for Opportunity Costs.

To PJM's dismay, the IMM contends that PJM has "reduce[d] the Market Monitor's role to an undefined ex post audit" and "fail[ed] to set forth the Market Monitor's role explicitly,"³² and therefore, the IMM requests that the Commission require PJM to incorporate language that "would capture the Market Monitor's role in advance review and verification" of requests for opportunity costs.³³ The IMM further alleges that "rather than apply the review and verification approach needed, on an ex ante basis or otherwise, PJM has instead, without any discussion with the Market Monitor,

³¹ *Id.*

³² IMM Comments at 10-11.

³³ *Id.* at 17-18, 22-24.

systematically removed entirely the existing and explicit statement of the Market Monitor's role in the applicable manuals."³⁴

PJM questions why the IMM continues to assert that PJM is trying to eliminate the IMM's ability to review requests to recover opportunity costs. PJM has no intention of doing so as it has repeatedly confirmed, both in discussions with Dr. Joseph Bowring and Jeffrey Mayes of the IMM in May 2010, and in the Answer of PJM Interconnection, L.L.C. to Comments and Motion to Answer and Answer to Protests filed in this docket on May 20, 2010 ("PJM Answer").³⁵ In that regard, PJM refers the Commission to the PJM Answer for a complete discussion of its proposed revision to incorporate a "Cost and Methodology Approval Process" into PJM Manual 15, which, among other things, specifically provides that requests for opportunity costs are to first be submitted to the IMM for determination. This approval process was also posted on PJM's web site on June 22, 2010 at <http://www.pjm.com/~media/committees-groups/task-forces/cdtf/20100621/20100621-draft-manual-15-v15-revision-word-doc.ashx>.

Furthermore, the PJM Tariff and Operating Agreement already provide in numerous places that opportunity costs are determined "in accordance with procedures specified in the PJM Manuals,"³⁶ and as "further detailed in the PJM Manuals."³⁷ The Tariff and Operating Agreement also specify that the IMM has a role in determining the

³⁴ *Id* at 23.

³⁵ PJM Answer at 2-5.

³⁶ Tariff, Attachment K – Appendix, Sections 1.11.4(b) (regulation) and 3.2.3B(i) (synchronized reserve), and the parallel provisions of Sections 1.11.4(b) and 3.2.3B(i) of Schedule 1 of the Operating Agreement.

³⁷ Tariff, Attachment K – Appendix, Sections 3.2.3(f-2) (operating reserves) and 3.2.3B(g) (reactive services), and the parallel provisions of Sections 3.2.3(f-2) and 3.2.3B(g) of Schedule 1 of the Operating Agreement.

appropriateness of such costs³⁸ and they affirm that PJM has final authority to determine whether such costs are acceptable until such time as the Commission determines otherwise.³⁹ Many of the referenced provisions of the Tariff and Operating Agreement were filed as part of PJM's Order No. 719 compliance filing and approved were by the Commission in its December 18, 2009 order in Docket No. ER09-1063.⁴⁰

Consistent with the referenced provisions of the Tariff and Operating Agreement, the IMM's role in the process of reviewing and approving requests for the recovery of opportunity costs is currently set forth in Manual 15 as the IMM has acknowledged.⁴¹ However, the IMM's role as currently set forth therein is inconsistent with Order 719 and the Tariff in that it gives the IMM the sole ability to approve such requests. Given this inconsistency with Order 719, it is clearly improper not to revise PJM Manual 15 to address this issue as PJM has proposed. Accordingly, PJM's proposed revisions to Manual 15 to incorporate the "Cost and Methodology Approval Process" were specifically put in place to be compliant with Order 719. These proposed revisions are currently being discussed in the PJM stakeholder process and have not yet been approved.

³⁸ Tariff, Attachment K – Appendix, Sections 3.2.3(f-3) and 3.2.3B(h), and the parallel provisions of Sections 3.2.3(f-3) and 3.2.3B(h) of Schedule 1 of the Operating Agreement; Tariff, Attachment M – Appendix, Sections II.J and V.

³⁹ Tariff, Attachment K – Appendix, Sections 1.11.4(b), 3.2.3(f-3) and 3.2.3B(h), and the parallel provisions of Sections 1.11.4(b), 3.2.3(f-3) and 3.2.3B(h) of Schedule 1 of the Operating Agreement; Tariff, Attachment DD, Sections 6.7(d)(ii) (RPM).

⁴⁰ *PJM Interconnection, L.L.C.*, 129 FERC ¶ 61,250 (2009).

⁴¹ IMM Comments at 23.

D. Allowing “Start Time” to be a Component of Non-Regulatory Opportunity Costs.

The IMM requests that the Commission require PJM to delete the reference to “start time” as a component of the definition of Non-Regulatory Opportunity Cost.⁴² The rationale posited by the IMM for this request is that start times do not have a “logical relationship to opportunity costs except as they result in limits on the hours for which a unit may run.”⁴³ Therefore, the IMM concludes that a “limitation on starts can and should be taken into account only to the extent that it can be translated into a limitation on run hours,” but since “no method for doing so has been developed,” the reference to “start time” as a component of the definition of Non-Regulatory Opportunity Cost should be deleted.⁴⁴

PJM acknowledges that the method for taking start times into account for the purposes of incorporating them into the calculation of Non-Regulatory Opportunity Costs has not yet been developed. Such a method is a matter to be addressed in a future Manual 15 revision after stakeholder discussion of the proper way to determine the relationship between the number of run hours for each type of technology and its start time. Nevertheless, PJM does not agree that it is necessary to delete the reference to “start time” from the definition of Non-Regulatory Opportunity Cost because until such time as a methodology is determined, no market participant will have the ability to recover such costs and therefore, there is no harm in keeping the “start time” reference in place. On the other hand, when a methodology has been developed, if the Commission has already approved the definition of Non-Regulatory Opportunity Cost as

⁴² *Id.* at 26-27.

⁴³ *Id.* at 27.

proposed by PJM, PJM will not have to submit a further filing with the Commission seeking to re-insert the reference to “start time” into the Tariff and Operating Agreement. Therefore, because there is no harm in retaining the reference to “start time” in the definition, and because PJM believes that a methodology for determining the relationship between the number of run hours for each type of technology and its start time will be developed, PJM respectfully requests that the definition of Non-Regulatory Opportunity Cost be approved as proposed by PJM.

E. Standard for Fuel Supply Limitation.

Another objection to PJM’s Non-Reg Compliance Filing that was raised by the IMM is with respect to two of the criteria proposed by PJM to evidence fuel limitations for which Non-Regulatory Opportunity Costs may be recovered.⁴⁵ The IMM bases its objections on its belief that PJM will apply subjective and non-transparent criteria in accepting and rejecting requests for Out of Management Control outage classifications,⁴⁶ and that the utilization of the NERC EOP-004 disturbance report and the “[m]ere consideration of fuel inventories” contained therein and “considered out of context, such as the prospect for imminent resupply, does not constitute a self-standing basis to apply . . . an opportunity cost adder.”⁴⁷ The IMM proposes as an alternative that “the standard for a fuel supply limitation can be reasonably defined as any such limitation occurring due to an event caused by *Force Majeure* as defined in Section 18.9 of the PJM Operating Agreement.”⁴⁸

⁴⁴ *Id.*

⁴⁵ *Id.* at 29-33.

⁴⁶ *Id.* at 29-30.

⁴⁷ *Id.* at 32.

⁴⁸ *Id.* at 31.

With respect to the IMM's objection to the use of Out of Management Control outage classifications to support a request to recover Non-Regulatory Opportunity Costs,⁴⁹ the IMM states that Out of Management Control ("OMC") Cause Codes, such as "high ash content", "low grindability", and "other fuel quality problems" and many others, are "too vague to serve as useful criteria for the purpose of defining opportunity costs."⁵⁰

As PJM explained in its Non-Reg Compliance filing, only the "units that experience an Out of Management Control ("OMC") fuel limitation that is recognized by PJM's eGADS system" are eligible to recover Non-Regulatory Opportunity Costs. Moreover, the definition of Non-Regulatory Opportunity Cost specifically refers to "(ii) an Out of Management Control fuel supply limitation as defined in the PJM eGADS User Manual."

Out of the total of 34 OMC Cause Codes that are defined in Appendix C to the eGADS User Manual, there are only two fuel limitations – OMC Cause Code 9130 – "Lack of fuel (water from rivers or lakes, coal mines, gas lines, etc) where the operator is not in control of contracts, supply lines, or delivery of fuels)" and OMC Cause Code 9150 – "Labor strikes company-wide problems or strikes outside the company's jurisdiction such as manufacturers (delaying repairs) or transportation (fuel supply) problems." These are the only two OMC Cause Codes that are recognized by PJM's eGADS system. Therefore, the IMM's concern about allowing units having OMC Cause Codes 9200 - "high ash content", 9210 - "low grindability", and 9290 - "other fuel quality problems," are unfounded.

⁴⁹ *Id.* at 29-30.

Moreover, in support of its objection to the use of the NERC EOP-004 Disturbance Report to support a request to recover Non-Regulatory Opportunity Costs,⁵¹ the IMM alleges that “[n]either the CDTF nor the MRC approved use of a disturbance report as a separate standard.”⁵² This allegation is untrue. At the May 14, 2010 meeting of the CDTF, stakeholders considered and discussed a proposal presented by Mirant, which proposal specifically refers to the use of the NERC EOP-004 Disturbance Report as evidence of fuel limitation. A copy of the Mirant proposal is located on PJM’s web site at <http://www.pjm.com/~media/committees-groups/task-forces/cdtf/20100514/20100514-item-05b-mirant%20-non-reg-opportunity-cost.ashx>. Thereafter, at the June 21, 2010 meeting of the CDTF stakeholders considered and discussed the use of NERC EOP-004 Disturbance Report as evidence of fuel limitation as reflected in proposed revisions to Manual 15 which PJM posted on its web site in advance of the meeting, a copy of which is located on PJM’s web site at <http://www.pjm.com/~media/committees-groups/task-forces/cdtf/20100621/20100621-item-04a-nrocc-proposal-manual-language.ashx>. The minutes of both meetings reflect the same, and the minutes of the May 14, 2010 meeting reflect that the Mirant proposal, with two amendments, was approved by the CDTF for presentation to the MRC with a vote of 50 for, 0 against and 0 abstentions.⁵³

The Mirant proposal, and another variation of the same, were posted on the PJM web site for the May 18, 2010 meeting of MRC at <http://www.pjm.com/~media/>

⁵⁰ *Id.* at 29.

⁵¹ *Id.* at 32.

⁵² *Id.*

[committees-groups/committees/mrc/20100518/20100518-item-09-non-regulatory-opportunity-cost-proposal.ashx](http://www.pjm.com/~media/committees-groups/committees/mrc/20100518/20100518-item-09-non-regulatory-opportunity-cost-proposal.ashx) and for the June 23, 2010 meeting of MRC at on PJM's web site at <http://www.pjm.com/~media/committees-groups/committees/mrc/20100623/20100623-item-04-cdtf-non-reg-opp-cost-proposal.ashx> and <http://www.pjm.com/~media/committees-groups/committees/mrc/20100623/20100623-item-04-pjm-icc-alternate-proposal-as-amended.ashx>. The minutes of the June 23, 2010 MRC indicate that stakeholders endorsed an amended version of the proposal that emanated from the CDTF, by acclamation with one objection and two abstentions.⁵⁴

Moreover, PJM has never implied that the “[m]ere consideration of fuel inventories” reflected in a NERC EOP-004 Disturbance Report is a “self-standing basis to apply . . . an opportunity cost adder” as the IMM intimates.⁵⁵ Rather, PJM only intended that the NERC EOP-004 Disturbance Report be considered as evidence in support of the *eligibility* of costs related to a fuel limitation for recovery as Non-Regulatory Opportunity Costs. There was never any intent that such a report be used to justify the automatic recovery of such costs.

Finally, PJM does not oppose the application of a *force majeure* standard for fuel limitations. Unfortunately, the IMM did not suggest such a standard during stakeholder discussions. Therefore, such a standard was not considered by stakeholders nor incorporated into PJM's proposal. In that regard, PJM requests that the IMM recommend the application of a *force majeure* standard to PJM stakeholders for

⁵³ See <http://www.pjm.com/~media/committees-groups/task-forces/cdtf/20100726/20100726-draft-minutes-cdtf-20100514.ashx> and <http://www.pjm.com/~media/committees-groups/task-forces/cdtf/20100726/20100726-draft-minutes-cdtf-20100621.ashx>.

⁵⁴ See <http://www.pjm.com/~media/committees-groups/committees/mrc/20100805/20100805-draft-minutes-mrc-20100623.ashx>.

⁵⁵ IMM Comments at 32.

discussion and consideration rather than seeking Commission approval of the same without having the benefit of any prior stakeholder discussion of the same.

F. Recovery of Additional Non-Regulatory Opportunity Costs.

In addition, Dayton requested that the Commission approve the PJM proposal, but also recognize that additional issues are being discussed in the ongoing stakeholder process such as an “investigation of short term issues and the potential to under price and prematurely exhaust limited operating hours” and “whether the historic market volatilities reflected in the current proposal will be appropriate 100% of the time, given that short term market excursions could quickly burn through a restricted units available hours if the calculated NROC adjustments based on historical data are set too low.”⁵⁶ PJM appreciates the concern expressed by Dayton. However, Dayton has not accounted for all of the relevant inputs into the computation of opportunity costs.

The calculation of opportunity costs is designed to ensure that a unit with restricted run hours operates only in the highest electricity margin (electricity price less running cost) hours, *in expectation*, which should coincide with the greatest reliability need for the PJM system. The calculation of opportunity costs is based upon the *expectation* of future PJM electricity and commodity fuel prices as they are represented forward prices for electricity and fuel. Dayton is correct insofar as historic PJM Energy Market and historic fuel price movements are used to define the expected volatility, or day-to-day and hour-to-hour movements in electricity and fuel prices that are matched with the expected forward electricity and fuel prices in which opportunity costs may be calculated at any point in time. However, these are not used to determine the average

⁵⁶ Dayton Comments at 8.

price levels which are defined by forward market prices. Consequently, if expectations about future electricity and fuel prices are higher than historic prices, and increase during the time the operating restriction is in place causing the need for the opportunity cost calculation, the level of the opportunity costs will increase as well to reflect the changing market expectations. Moreover, all other things being equal, as the number of available hours to run decreases, the opportunity cost for a unit increases. Consequently, the opportunity cost will constantly be updated to reflect changing future market expectations and any of the limited run hours that may be used to date.

For example, if a unit with run time restrictions requiring opportunity costs uses up many of its run hours early in the period in which it is run-time restricted, that means that electricity prices (and margins) were relatively high and reliability needs great early in the period relative to expectations in the future. Such a scenario indicates that future market prices expectations were not high enough to result in an opportunity cost that kept the unit out of the economic dispatch early in the restricted period. However, if future market expectations changed resulting in higher prices and margins in the future, and with many run hours already used, the opportunity cost for the remaining limited hours would increase to save the unit for the most valuable hours remaining, in expectation, in an effort to ensure that the unit ran in only the most valuable hours from an economic and reliability perspective, and did not run out of hours prematurely.

Nevertheless, it is not possible to guarantee that the unit will never run out of hours or that in actual operation it will run in only the most economically valuable hours. The opportunity cost at any point in time is based on the *expectation* or market belief or market forecast regarding electricity and fuel prices given the number of hours

remaining. Like any forecast of load or weather, it will not be exact. Further, the market expectations or forecast will consistently be updated to reflect additional information that may not have been available until the actual day and/or hour in which electricity or fuel prices are realized. In CDTF discussions held in 2009, PJM provided multiple simulations and examples of how opportunity costs are calculated and how the expectations of future electricity and gas prices are updated, and how this affects the calculation of opportunity costs going forward. The proposed methods were unanimously approved by the PJM membership and by the PJM Board in 2009 for inclusion into Manual 15 upon approval by the Commission of PJM's various compliance filings in the instant proceeding.

G. PJM Proposal to Excuse from Forced Outages Units that Self-Schedule Less than 50% of the Time.

The IMM requests that the Commission reject PJM's "proposal to excuse units that self schedule below an arbitrary level from forced outages"⁵⁷ because PJM should not "attempt to modify the definition of outages in this filing," the "topic was not discussed and would not have been an appropriate topic for discussion in the CDTF as part of the opportunity cost discussion," and the "proposal to excuse units that self schedule below an arbitrary level from forced outages is inconsistent with the theory of opportunity cost, [and] lacks any support as just and reasonable."⁵⁸ Further, the IMM also alleges that "[n]either this 50 percent level or the need for any threshold was vetted or even discussed by stakeholders in any CDTF or MRC meeting."⁵⁹

⁵⁷ IMM Comments at 38-39.

⁵⁸ *Id.* at 37-39.

⁵⁹ *Id.* at 38.

First, PJM disputes the IMM's allegation that the 50% threshold was never discussed at any CDTF or MRC meetings. The minutes posted on PJM's web site for the June 15, 2009 and the July 13, 2009 meetings of the CDTF reflect that the 50% threshold was discussed by stakeholders.⁶⁰ While the meeting minutes and presentation materials for the June 17 and July 30, 2009 meetings of the MRC do not directly reflect that the 50% threshold was directly discussed by stakeholders, this issue was discussed and was part of the MRC endorsement to adopt the 50% threshold for the classification of unit outages which occur after the available run hours have been exhausted at the July 30, 2009 meeting of the MRC.⁶¹ The issue of the 50% threshold for the classification of unit outages was also discussed at the July 13, 2009 meeting of the CDTF. The minutes of that meeting, located on PJM's web site at <http://www.pjm.com/~media/committees-groups/task-forces/cdtf/20090713/20090713-3-minutes.ashx>, specifically provide that "CDTF Members discussed generator outage reporting for external run-time restricted units. PJM has proposed the following: If the unit has been self-scheduled by the generation owner less than 50% of its run hours in the compliance period then the outage will be considered outside management control. If the unit has been self scheduled 50% or more of its run hours, then the outage shall be considered as a forced outage and reported as such." Finally, PJM initially addressed the 50% threshold in its Initial Compliance Filing on July 31, 2009. Since that time, no stakeholder has objected to the use of this threshold limitation.⁶²

⁶⁰ See <http://www.pjm.com/~media/committees-groups/task-forces/cdtf/20090615/20090615-minutes.ashx> and <http://www.pjm.com/~media/committees-groups/task-forces/cdtf/20090713/20090713-minutes.ashx>.

⁶¹ See MRC minutes at: <http://www.pjm.com/~media/committees-groups/committees/mrc/20090923/20090923-item-01-draft-minutes-20090730.ashx>.

⁶² Initial Compliance Filing at 5-6.

Second, the 50% threshold is not an “arbitrary level” chosen with no thought or analysis by PJM. As PJM discussed with its stakeholders, the purpose of the 50% threshold is to prevent unit owners from self-scheduling their units and running them outside of the opportunity cost calculator and then being in a position where the units are not available when needed by PJM for reliability at a later time during the year. If this occurred, the units facing run-time limitations would not receive the full benefit of their capacity by claiming an OMC outage, which does not count against their EFORD values in RPM. On the other hand, if they self-schedule their units more than 50% of the time, then these units should be deemed to be in a forced outage state if they are not available later in the year and needed for reliability.

In fact, AEP raised this issue in its comments filed in this docket on August 31, 2009 when it requested clarification of how PJM will “treat units which reach the limit on their emission allowances before the end of the delivery year, and accordingly must cease operations until the new accounting period begins”⁶³ because it believed the classification of an outage as either a Forced Outage or an outage Outside Management Control is of particular importance given that “classification of an outage as Outside Management Control is very important when determining capacity availability and penalty exposures in the PJM capacity market.”⁶⁴

H. Conclusion

Wherefore, PJM asks the Commission to consider this reply, reject the protests, and accept the proposed Tariff and Operating Agreement revisions submitted by PJM in this proceeding.

⁶³ AEP Comments at 3.

Respectfully submitted,

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⁶⁴ *Id.*

CERTIFICATE OF SERVICE

I hereby certify that I this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Norristown, PA this 17th day of August, 2010.

/s/ Jacquelyn Huges
Jacquelyn Huges
Assistant General Counsel