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

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PJM Interconnection, L.L.C.

Docket No. ER13-1654-000

#### ANSWER AND MOTION FOR LEAVE TO ANSWER OF THE INDEPENDENT MARKET MONITOR FOR PJM

Pursuant to Rule 211 of the Commission's Rules and Regulations,<sup>1</sup> Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM ("Market Monitor"),<sup>2</sup> submits this answer in response to the answers submitted in the above captioned proceeding by PJM Interconnection, L.L.C. ("PJM") and Carol Smoots, Esq. et al., who represent themselves as the Financial Marketers Coalition ("Financial Marketers"), both on July 15, 2013. This answer responds to new arguments raised in these answers that mischaracterize the nature of this proceeding and misrepresent recent analysis of the impact of up to congestion transactions (as virtual transactions) on unit commitment, unit dispatch, operating reserve charges and market prices.

This proceeding constitutes the first time that PJM has proposed to define up to congestion transactions as virtual transactions in the tariff. The tariff has defined up to congestion transactions as "bilateral transactions" since 2000, even though PJM has implemented them as virtual transactions throughout that period. This is the Commission's first opportunity to evaluate the definition and characteristics of up to congestion

<sup>&</sup>lt;sup>1</sup> 18 CFR § 385.211 (2013).

<sup>&</sup>lt;sup>2</sup> Capitalized terms used herein and not otherwise defined have the meaning used in the PJM Open Access Transmission Tariff ("OATT") and/or PJM Operating Agreement ("OA")(collectively, "PJM Tariff"). Citations to sections of the PJM Tariff can be found in both the OATT Attachment K– Appendix and the OA Schedule 1.

transactions as virtual transactions, and there is no reason to limit the scope of what the Commission may consider.

Contrary to the incorrect arguments raised by Financial Marketers and the misleading arguments raised by PJM, recent analysis performed by PJM, evaluated by the Market Monitor, and discussed in the stakeholder process, and recent analysis by the Market Monitor, demonstrate that up to congestion transactions do impact unit commitment, unit dispatch and market prices. Even more importantly, there are no data and no results that support the argument that up to congestion transactions should be treated differently than other virtuals with respect to the payment of operating reserve charges. In order to ensure just, reasonable and non-discriminatory rules, up to congestion transactions should be assigned a portion of operating reserve charges incurred, just as are the other virtual transactions included in the tariff, INCs and DECs.

Accordingly, PJM's filing should be accepted only subject to two conditions. The first condition is that up to congestion transactions are assigned operating reserve charges consistent with what the rules assign to other virtual transactions. The second condition is that up to congestion transactions must source or sink at an interface, as PJM required in practice from 2000 to November 1, 2012.<sup>3</sup> The stakeholder process can and should continue the review of how all virtual transactions impact unit commitment, unit dispatch, operating reserve charges and market prices. The need for an additional filing can be assessed on the basis of that process.

<sup>&</sup>lt;sup>3</sup> PJM at 10. As far as the Market Monitor is aware, this practice was implemented without being explicitly included in the filed rules, or even the manuals (just as up to congestion transactions were implemented as virtual transactions outside of the rules, which defined them as bilateral transactions).

### I. ANSWER

A. PJM in This Proceeding Proposes to Define Up To Congestion Transactions as Virtual Transactions for the First Time, and the IMM Proposals Are Required for a Complete Definition and Are Consistent With That Purpose.

# **1.** The Relief Requested by the Market Monitor Is Within the Scope of This Proceeding.

PJM argues that the relief requested by the Market Monitor is outside of the scope of this proceeding.<sup>4</sup> PJM's argument depends upon PJM's failure to acknowledge that the scope of this proceeding is broad. PJM's argument is incorrect with respect to the issue of the points at which up to congestion transactions can be scheduled because PJM's filing includes this issue in its scope. PJM includes in its filing a new provision, OA Schedule 1 § 1.10.1A(c-1), as PJM explains (at 12–13), "to specify the characteristics of an Up-to Congestion Transaction such as the limit on the maximum spread for Up-to Congestion Transactions and the points at which a Market Participant can submit an Up-to Congestion Transactions as virtual transactions and not as bilateral transactions. This is therefore the first time that the Commission has had an opportunity to engage in a comprehensive review of the proposed characteristics of virtual up to congestion Transactions, such as "the points at which a Market Participant can submit an Site as "the points at which a Market Participant congestion transactions."

The primary issue is based on PJM's proposed definition of up to congestion transactions as virtual transactions for the first time in a new subsection 1.10.1A(c-1). The Commission has never had an opportunity to consider whether up to congestion

<sup>&</sup>lt;sup>4</sup> Financial Marketers raise a number of procedural arguments (at 9–10) arguing that the relief requested by the Market Monitor is improper. All of these arguments fail because they are based on the false premise that the filed market rules define up to congestion transactions as virtual transactions, when, in fact, the rules address only "bilateral transactions." OA Schedule 1 § 1.10.1A(c). The market monitor is not challenging rules that exist in the tariff. The Market Monitor is protesting a filing to include rules defining up to congestion transactions as virtual transactions for the first time.

transactions should be obligated to pay Operating Reserves Charges like other virtual transactions. While PJM's June 10<sup>th</sup> filing does not explicitly address this critical question, the filing does implicitly address the question by explicitly not assigning Operating Reserve Charges to up to congestion transactions. The filing would continue to apply Operating Reserve Charges to INCs/DECs, the only other virtual transactions included in the proposed tariff, while excluding up to congestion transactions from the allocation of Operating Reserve Charges. For the reasons explained below, PJM's and Financial Marketers' arguments on this issue in their answers are incorrect and misleading. PJM should explicitly justify its decision not to assign any portion of Operating Reserves Charges to up to congestion transactions.

The Commission has also never had an opportunity to consider whether up to congestion transactions should be limited to sink or source at an interface. This limitation affects the volume of virtual up to congestion transactions in PJM markets and, consequently, the relative impact of such transactions on the market and on unit commitment and dispatch specifically.

The Commission should have an opportunity to comprehensively evaluate up to congestion transaction as virtual transactions. It is essential that PJM be required to show that the rules that apply to this product are just and reasonable even if that showing is long overdue. Under the circumstances, no issue about the fundamental characteristics of up congestion transactions as virtual transactions and their interrelationship to other market rules is properly beyond the scope of this proceeding.

PJM has implemented up to congestion transactions as virtual transactions for over a decade. PJM never revised its tariff to include this virtual product. The only relevant section of the tariff defines the product as "bilateral transactions," which exclude virtual transactions.<sup>5</sup> The failure to file these rules has left PJM free to determine at its discretion

<sup>&</sup>lt;sup>5</sup> OA Schedule 1 § 1.10.1A(c).

whether to assign Operating Reserves Charges to up to congestion transactions. The failure to file has left PJM free to determine at its discretion whether to require that up to congestion transactions source or sink at interfaces. The Commission has never had an opportunity to review these essential characteristics in the first instance.

PJM's modifications to the definition and implementation of virtual up to congestion transactions, including the removal of transmission charges and the corresponding failure to add Operating Reserve Charges, plus the change in permitted sources and sinks, have resulted in an enormous increase in the volume of up to congestion transactions and a corresponding reduction in the volume of virtual transactions in the form of INCs and DECs, which are defined in the tariff. The Commission has had no opportunity to review these changes or their implications and consequences.

PJM explains that up to congestion transactions have evolved in its markets.<sup>6</sup> While evolution of market rules is a good thing, evolution of market rules in regulated markets can only happen with the explicit review and approval by the Commission. The evolution of the market rules referenced by PJM, which occurred as a result of actions by PJM and market participants with no review or approval by the Commission, creates significant legal issues in this regulated market.

Section 205 of the Federal Power Act requires that public utilities such as PJM obtain prior approval for rates, including terms and conditions, prior to implementing them.<sup>7</sup>

<sup>&</sup>lt;sup>6</sup> PJM at 7 ("*Over time*, the use of Up-to Congestion Transactions by PJM Market Participants has *changed* from their original use as a hedge to an accompanying physical transaction, i.e. bilateral transaction. Today the vast majority of Up-to Congestion Transactions are used as a stand-alone mechanism to speculate on prices in the Day-ahead Energy Market, without hedging an underlying real time physical transaction." (emphasis added)).

<sup>&</sup>lt;sup>7</sup> 18 U.S.C. § 824d. The filed rate doctrine "forbids a regulated entity to charge rates for its services other than those properly filed with the appropriate federal regulatory authority." *Ark. La. Gas Co. v. Hall,* 453 U.S. 571, 577 (1981). The doctrine is necessary to preserve "'the agency's primary jurisdiction over reasonableness of rates and the need to insure that regulated companies charge

Relief required as the result of a filed rate issue is not time-barred.<sup>8</sup> That this problem has persisted unaddressed and perhaps undetected is not a reason to allow PJM to use this proceeding to define and establish the characteristics of up to congestion transactions without supporting its proposal. This is the first opportunity that the Commission has had to engage in a comprehensive review of up to congestion transactions as virtual transactions. The issues raised by the Market Monitor for the Commission's review are well within the scope of the proceeding.

PJM's failure to file a rate that it has been implementing for over a decade creates serious issues under the filed rate doctrine. The Commission may choose to explore those issues, but the Market Monitor's request is decidedly more modest. The Market Monitor requests that this proceeding include consideration of key issues that relate to the implementation of up to congestion transactions as virtual transactions.

This matter has come up now largely because recent changes to the rules that PJM has implemented have transformed up to congestion transactions from transactions with relatively little impact on the market to transactions with an enormous impact on the market.

This problem has its origins in 2010 with the decision to remove the requirement that participants engaged in up to congestion transactions had to purchase transmission service in support of those transactions. The change in 2010 occurred in a proceeding that was narrowly conceived to address participants who were gaming the market by using up to

only those rates of which the agency has been made cognizant." *Id.* at 577–78 (quoting *City of Cleveland v. FPC*, 525 F.2d 845, 854 (1976)).

See, e.g., Virginia Elec. and Power Co., 123 FERC ¶ 61,098, at P 46 (2008); North Carolina Elec. Membership Coop. v. Carolina Power & Light Co., 57 FERC ¶ 61,332 at 62,065 (1991); San Diego Gas & Electric Co. v. Sellers of Energy and Ancillary Services, 96 FERC ¶ 61,120 at P 61,508 n.42 (2001); Kern River Gas Transmission Co., 116 FERC ¶ 61,217 (2006).

congestion transactions to obtain a disproportionate share of the marginal loss surplus.<sup>9</sup> Because the purchase of transmission service was the basis for an entitlement to a share of the marginal loss surplus, the removal of this requirement appealed to some as a solution. Unfortunately, the removal of the requirement to pay for transmission created a new problem. The corresponding failure to assign Operating Reserve Charges to up to congestion transactions created an arbitrary and artificial advantage for virtual up to congestion transactions over the other available virtual transactions, INCs and DECs. The volume of up to congestion transactions increased as a result of the combination of the removal of the arbitrary advantage conferred on up to congestion transactions, the volume of INCs and DECs, had a corresponding and very significant decrease.<sup>10</sup> The volume of INCs and DECs declined by 41.3 percent from 2011 to 2012 and the volume of UTCs increased by 73.5 percent from 2011 to 2012.<sup>11</sup> As a further direct result of the smaller pool of transactions over which Operating Reserve Charges were spread, the Operating Reserve rates increased compared to what it otherwise would have been.<sup>12</sup>

One limitation on up to congestion transactions remained after the 2010 change. The requirement that up to congestion transactions source or sink at interfaces remained. This restriction continued to partly limit the volume of trading activity. On November 1, 2012, PJM notified participants of its decision to remove that restriction, which had been applied by PJM since 2000. The Commission never had an opportunity to review the limitation to sourcing and sinking at interfaces when it was imposed or when it was lifted. This proceeding constitutes the first proceeding in which the Commission has the opportunity to

<sup>&</sup>lt;sup>9</sup> See PJM Interconnection, L.L.C., 132 FERC ¶ 61,244 (2010).

<sup>&</sup>lt;sup>10</sup> See 2012 State of the Market Report for PJM, Volume II, at 83–84.

<sup>&</sup>lt;sup>11</sup> Id.

<sup>&</sup>lt;sup>12</sup> See 2012 State of the Market Report for PJM, Volume II, at 127.

determine whether this limitation is appropriate. That PJM implemented this rule for many years and then lifted it without Commission approval for either action should have no effect on the Commission's ability to consider this matter. This modification resulted in further growth in the volume of up to congestion transactions, a shift in the type of up to congestion transactions toward internal transactions and a corresponding further reduction in the volume of INCS and DECS.<sup>13</sup>

PJM should be required to define the up to congestion product with a requirement that up to congestion transactions pay Operating Reserve Charges in the same manner as all other virtual transactions, INCs and DECs. This requirement is appropriate given that there is no information or data to support treating up to congestion transactions differently than INCs and DECs with respect to the payment of Operating Reserve Charges.

PJM should be required to define the up to congestion product with a restriction that transactions source or sink at interfaces. This limitation is appropriate given the demonstrable effect of this limitation on trading volumes of up to congestion transactions and INCs and DECs and the uncertainty about how up to congestion transactions impact the market.

# 2. PJM Did Not Define Up To Congestion Transactions As Virtual Transactions in the Tariff in 2010.

PJM suggests (at 7–8) that the filing approved by order issued September 17, 2010, to address participants engaging in games using up to congestion transactions to obtain a share of marginal loss revenues established up to congestion transactions as virtual transactions in the tariff.<sup>14</sup> Even a cursory review indicates that the purpose of that proceeding was an emergency effort to correct a gaming opportunity created by an excess allocation of marginal loss revenues. PJM's own factual summary recognizes this true

<sup>&</sup>lt;sup>13</sup> 2013 State of the Market Report for PJM: January through March at 76–77, 81.

<sup>&</sup>lt;sup>14</sup> See PJM Interconnection, L.L.C., 132 FERC ¶ 61,244 (2010).

limited purpose.<sup>15</sup> Rather than fix the allocation problem directly, PJM instead proposed to address the issue indirectly by removing the requirement that up to congestion transactions include transmission service and thereby remove any allocation of marginal loss revenues.

All involved in that proceeding apparently assumed that the filed tariff rules permitted up to congestion transactions that were virtual transactions. PJM now claims (at 8) that its 2010 filing was for the purpose of "recognizing that Up-to Congestion Transactions were purely financial transactions." This statement is confusing, and, unless read closely, it could appear to state that the 2010 proposal was about defining up to congestions transactions as a virtual product in the tariff for the first time. PJM claimed in its 2010 filing that its purpose was to "eliminate a possibility for market participants to 'game' the allocation of marginal loss surplus revenues by modifying a provision of the Operating Agreement concerning the allocation of the marginal loss revenue surplus and eliminating the requirement to obtain transmission service for Up-To Congestion bids."<sup>16</sup> PJM argued that its proposed approach was appropriate because it was *already* implementing up to congestion transactions almost exclusively as virtual transactions.<sup>17</sup>

See PJM at 6 ("PJM revised Sections 1.10.1(b) and 5.5 of Schedule 1 of its Operating Agreement to eliminate the requirement to obtain transmission service for day-ahead scheduling of Up-to Congestion Transactions to eliminate a possibility for Market Participants to "game" the allocation of marginal loss surplus revenues in a filing submitted to the Commission on August 18, 2010. PJM believed making these market rule changes best addressed the market behavior PJM and its stakeholders sought to eradicate from its markets since it eliminated the fictitious OASIS reservation for the purely financial Up-To Congestion Transactions because there is no need for such reservations unless there is a physical transaction in the Real-time Energy Market. The Commission accepted these revisions on September 17, 2010. [citation omitted]").

<sup>&</sup>lt;sup>16</sup> August 18<sup>th</sup> Filing at 1.

PJM recognized that it had been implementing up to congestion transactions as virtual transactions almost exclusively in spite of their original purpose and revealed no appreciation that this manner of implementation was contrary to what the filed PJM market rules required. *See* PJM filing, Docket No. ER10-2280 (August 18, 2010) ("August 18<sup>th</sup> Filing"). In that filing PJM stated (at 8–9):

Presently, Section 1.10.1(b) of Schedule 1 of the Operating Agreement requires that transmission service first be reserved in order to support any transactions, including

That proceeding did not consider the impact that removing the requirement to purchase transmission service in support of up to congestion transactions as virtual transactions would have on trading volumes and associated impacts. Nowhere in the proceeding did PJM raise the issue of whether up to congestion transactions as virtual transactions should pay Operating Reserves Charges or whether or not up to congestion transactions should be limited to source or sink at interfaces. Nothing about this proceeding limits the Commission from considering those issues now.

The requirement to purchase transmission service should have raised a red flag about the tariff definition of up to congestion transactions. The requirement to purchase transmission service was consistent with the definition of the product that the tariff did include and still does include: up to congestion transactions are bilateral transactions that must contemplate the physical transfer of energy to or from a market participant. The Commission found in *DC Energy, LLC v PJM* that the requirement to purchase transmission is a reasonable factor to demonstrate that the transaction contemplated a physical transfer

an Up-To Congestion transaction, in the PJM Day-ahead Energy Market, whether they are physical or virtual. Because the original intent of Up-To Congestion transactions was to create a hedge in the Day-ahead Energy Market to physical energy deliveries in the Real-time Energy Market, PJM historically required that all such transactions reserve transmission service. However, the use of Up-To Congestion transactions has markedly changed from their original derivation. By way of example, in 2009 most Realtime Energy Market transactions - 99.8% to be exact - did not have matching Up-To Congestion transactions.[footnote omitted] Given that the vast majority of Up-To Congestion transactions do not involve the physical movement of power, this transmission service requirement, which served as the physical link between the Day-ahead Energy Market and the Real-time Energy Market transactions, has become irrelevant for all intents and purposes except with respect to the small minority of the Up-To Congestion transactions that do involve the physical transfer of power. Therefore, requiring Up-To Congestion transactions to reserve Non-Firm Point-to-Point Transmission Service has become unnecessary as a link between Up-To Congestion transactions in the Day-Ahead market and physical energy transactions in the Real-time Energy Market.")

as opposed to virtual transaction that does not contemplate a physical transfer. <sup>18</sup> The Commission also found in *DC Energy v. PJM*, however, that whether or not a transaction is virtual or contemplates the physical transfer the flow of energy does not depend on the existence of a requirement to purchase transmission service.<sup>19</sup> Therefore, removing the requirement to purchase transmission does not make up to congestion transactions virtual transactions.

Neither PJM nor any participant considered whether PJM's implementation of up to congestion transactions as virtual transactions conformed to the tariff definition of up to congestion transactions.<sup>20</sup> Neither PJM nor any participant argued that PJM's 2010 filing was submitted for the purpose of modifying the tariff to permit the treatment of up to congestion transactions as virtual transactions.

Thus it is misleading for PJM to argue that the proceeding in 2010 was designed to change the tariff definition of up to congestion transactions to be a virtual product. This is further emphasized by the fact that, in the 2010 filing, PJM neglected to change the tariff provision that explicitly defines up to congestion transactions as "bilateral transactions" as opposed to and excluding "virtual transactions."

PJM's argument that the condition requested by the Market Monitor is out of the scope of this proceeding is based on confusion about what tariff section 1.10.1A(c) actually

<sup>&</sup>lt;sup>18</sup> 138 FERC ¶ 61,165 at P 70 (2012) ("We agree with Complainants that section 1.7.10 does not explicitly require that market participants (i) obtain and pay for transmission service, (ii) be either a generator or load serving entity to be a transacting party, or (iii) be non-affiliates. However, whether transmission capacity was reserved or whether the parties own generation resources or are load serving entities or marketers are factors that are reasonably applied to determine whether a transaction is physical or non-physical in nature.").

<sup>&</sup>lt;sup>19</sup> Id.

See OA Schedule 1 §§ 1.7.10(a), 1.10.1A(c); see also PJM Interconnection L.L.C., 132 FERC ¶ 61,244 at P 47 (2010) ("PJM, however, already permits Up-To Congestion transactions, so this proposal does not result in a new product.").

provides. PJM argues that section 1.7.10 and its requirement that bilateral transactions contemplate the physical transfer of energy do not apply to up-to congestion transactions because up to congestion transactions are virtual transactions with the pool.<sup>21</sup> This argument is beside the point.

The Market Monitor does not argue that section 1.7.10 will continue to apply to up to congestion transactions *after* the Commission has approved PJM's proposal in this proceeding to define such transactions in the tariff as virtual transactions. The Market Monitor's argument relates to what the tariff provides as it now stands. The filed tariff provides for PJM to implement up to congestion transactions as "bilateral transactions."<sup>22</sup> The Market Monitor does not refer to what the tariff provided "historically," as PJM mischaracterizes the Market Monitor's position.<sup>23</sup> This is what the tariff provides today. The current tariff nowhere provides, and never has provided, for PJM to implement up to congestion transactions as virtual transactions.

PJM's proposal is to delete "bilateral transactions" in section 1.10.1A(c) and replace that language with a new section 1.10.1A(c-1) that defines up to congestion transactions as a type of "virtual transaction."<sup>24</sup> This would, after over a decade of implementation of these unauthorized transactions, bring the filed tariff provisions into conformity with PJM's actual implementation of the tariff.

Accordingly, it is well within the scope of this proceeding to accept PJM's proposal to define a product new to the tariff subject to two conditions that properly define the characteristics of that product that PJM has failed to address. The first condition is that up

<sup>&</sup>lt;sup>21</sup> PJM at 9 n.25.

<sup>&</sup>lt;sup>22</sup> OA Schedule 1 § 1.10.1A(c).

<sup>&</sup>lt;sup>23</sup> PJM at 9 n.25.

See PJM filing, Docket No. ER13-1654 (June 10, 2013) at 12–13, Attachment A (Revisions to the PJM Open Access Transmission Tariff and PJM Operating Agreement) at 28.

to congestion transactions be assigned operating reserve charges consistent with what the rules assign to other virtual transactions. The second condition is up to congestion transactions must source or sink at an interface, as PJM required in practice from 2000 to November 1, 2012.<sup>25</sup> The stakeholder process can and should continue the review of how all virtual transactions impact unit commitment, unit dispatch, operating reserve charges and market prices. The need for an additional filing can be assessed on the basis of that process.

# B. The Argument that Up To Congestion Transactions (UTCs) Should Be Treated Differently Than Other Virtual Transactions in the Allocation of Operating Reserve Charges Is Based on Erroneous Assumptions Regarding the Effect of UTCs on the Day-Ahead Market and Misinterpreted Analysis Results.

There is no logic and there are no studies and no data to support PJM's proposal to treat UTCs differently than other virtuals with respect to the allocation of operating reserve charges. Logic and the available information support allocating operating reserve charges to all virtuals.

PJM argues (at 13) that UTCs' impact on unit commitment "is expected to be minimal as compared to other virtual transactions," and therefore UTCs should not be treated like INCs and DECs for purposes of allocating Operating Reserve Charges. PJM's statement is not that they have demonstrated that UTCs have no impact on operating reserve charges, but only that PJM "expects" the impact on unit commitment to be "minimal," which is an undefined standard.

PJM's argument (at 12) is based in part on the incorrect assertion that an "Up-to Congestion Transaction by definition is a paired injection and withdrawal of the same megawatt." PJM's argument appears to be only that UTCs cannot affect unit commitment when there is no congestion on the system (at 13). Since there is congestion in almost every

<sup>&</sup>lt;sup>25</sup> PJM at 10.

hour of the day ahead market, this assertion is not relevant. In 2012, all hours but one had congestion.

PJM does recognize that UTCs "can impact physical unit commitment or dispatch when they create congestion." (at 13) Injections and withdrawals have effects on the system based on their locations relative to constraints. Withdrawals from a constrained area, for example, can require the commitment of additional local generation to maintain system integrity. The fact that there is an equal injection of power at an electrically remote location does not resolve the issue caused by the increased relief needed on the local constraint. In fact, a simultaneous injection on the unconstrained side of the constraint can make the constraint more difficult to solve, requiring a potential decommitment of resources on the unconstrained side to maintain system power balance and integrity. The nature and magnitude of the resultant unit commitment changes and unit dispatch changes depend on the location of the injection and the withdrawal points relative to constraints and the resources available to resolve the security constrained dispatch. These interactions also affect prices, the shadow prices of constraints and flows in and out of the PJM system in the day-ahead market. None of these factors provide a basis for distinguishing between the impacts of UTCs and the impacts of other virtual transactions.

PJM claims (at 3) that "PJM has presented analysis in the stakeholder process that demonstrates that Up-to Congestion Transactions have a significantly smaller impact on day-ahead unit commitment and dispatch than other virtual transactions." This is a reference to the first of two PJM studies. That study cannot fairly be said to have demonstrated anything. The first study cannot be tested, replicated or relied on. PJM did not document the analysis and it is unclear exactly what PJM did, although it does not appear to have been a comprehensive analysis.<sup>26</sup> PJM's first study cannot support any

<sup>&</sup>lt;sup>26</sup> PJM did not describe the software or assumptions used in its analysis. It appears that PJM assumed only a limited set of constraints in their model. *See* PJM UTC Analysis Construction Presentation,

hypothesis about UTCs. PJM's second study was better documented and PJM provided the results data to the IMM. As reported to the Members Committee, IMM analysis of the data generated by PJM's second analysis demonstrates that UTCs do affect unit commitment.<sup>27</sup> PJM has not responded. As also reported to the Members Committee, the IMM's PROBE analysis shows that the impact of UTCs on unit commitment can be significant.<sup>28</sup>

PJM incorrectly (at 13) suggests that deviations, to which Operating Reserve Charges are allocated, are incurred by participants on the basis of net energy imbalances. In fact, deviations are defined to be real-time deviations from day-ahead positions.<sup>29</sup> UTCs have deviations between day-ahead and real-time positions at both the source of the UTC and the sink of the UTC in exactly the same way that INCS and DECS do, but are not allocated corresponding Operating Reserve Charges.

The requirement that UTC transactions pay Operating Reserve Charges would ensure that all virtuals are treated comparably. INCs and DECs, the only form of virtual transactions included in the tariff, do pay Operating Reserves Charges.<sup>30</sup> The rules do not explicitly assign Operating Reserves Charges to up to congestions that are virtual transactions because no such virtual product has ever existed in the PJM market rules to

- <sup>28</sup> See IMM June 24<sup>th</sup> Report. PROBE is a model of the PJM day-ahead market used by PJM to help run the day-ahead market and used by the IMM to analyze the day-ahead market.
- <sup>29</sup> OA Schedule 1 § 3.2.3(h).

Analysis Modeling and Assumptions, Transactions Task Force June 5, 2012 meeting, which can be accessed at: <a href="http://www.pjm.com/~/media/">http://www.pjm.com/~/media/</a> committees-groups/task-forces/ttf/20120607/20120607-utc-analysis-construction-presentation.ashx> ("PJM June 5th UTC Study").

<sup>&</sup>lt;sup>27</sup> Market Monitor Report, Member Committee Webinar (June 24, 2013) at 14–19, which can be accessed at: <a href="http://www.monitoringanalytics.com/reports/Presentations/2013/IMM\_MC\_Market\_Monitor\_Report\_20130624.pdf">http://www.monitoringanalytics.com/reports/Presentations/2013/IMM\_MC\_Market\_Monitor\_Report\_20130624.pdf</a>> ("IMM June 24th Report").

<sup>&</sup>lt;sup>32</sup> See 2012 State of the Market Report for PJM, Volume II, at 126–127.

which such charges could be explicitly assigned.<sup>31</sup> Arguably, the existing rules *implicitly* require up to congestion transactions that are virtual transactions to pay Operating Reserve Charges because the only type of virtual transaction included in the rules does pay them. PJM has the initial burden in this proceeding to demonstrate that it has a just, reasonable and non-discriminatory basis to treat up to congestion transactions as virtual transactions differently from INCs and DECs with respect to Operating Reserve Charges. PJM has the burden to show that such treatment is consistent with the overall market design. The record in this proceeding as it now stands, including PJM's arguments, supports treating all virtual transactions the same with respect to Operating Reserve Charges.

No basis exists at present to treat up to congestion transactions differently than INCs and DECs. The PJM market rules should treat all virtual transactions, INCs/DECs and up to congestion transactions consistently based on the best available information. It is clear that failing to assign Operating Reserves Charges to up to congestion transactions is incorrect and represents a significant market design flaw. Treating all virtual transactions the same would remove the existing arbitrary incentive to use UTCs rather than INCS and DECS, which has resulted in the explosion of UTC usage and the corresponding reduction in the use of INCS and DECS.<sup>32</sup>

If supportable and verifiable analysis shows a difference in the impacts of various types of virtuals, a new filing can be made to implement appropriate charges.

# C. PJM's Studies Do Not Prove that UTCs Cannot Affect or Contribute to Operating Reserve Charges.

As explained by the IMM and by PJM, Financial Marketers err (at 2) in asserting that the IMM statement that UTCs affect dispatch, unit commitment, congestion and prices is "incorrect and baseless." In addition, Financial Marketers err (at 3) in asserting that there

<sup>&</sup>lt;sup>32</sup> See 2012 State of the Market Report for PJM, Volume II, at 126–127.

<sup>&</sup>lt;sup>32</sup> See 2012 State of the Market Report for PJM, Volume II, at 126–127.

were "explicit findings by PJM that there is no basis to apply operating reserve charges to UTC transactions as they do not affect power balance, and as such do not impact operating reserve charges."

Financial Marketers confuse PJM's assertions about the impacts of UTCs when there is no congestion and when there is congestion. PJM states that UTCs can affect unit commitment and dispatch when there is congestion, but PJM "expects" the impact to be "minimal." PJM's studies provide no basis for the claims that balanced schedules cannot contribute to changes in unit commitment and therefore cannot contribute to balancing operating reserve charges.<sup>33</sup> PJM itself does not make that claim. The results of PJM's second analysis provide the basis for concluding that UTCs do affect unit commitment and dispatch.

PJM's studies have not demonstrated that UTCs cannot contribute to differences in unit commitment between day ahead and real time. Instead, the PJM studies, as limited as they are, have demonstrated that UTCs can affect dispatch and that they can affect unit commitment. To the extent that UTCs can affect unit commitment and dispatch they can affect balancing operating reserve charges. If UTCs can affect operating reserve charges they should be treated like other bids or positions for purposes of the allocation of operating reserve charges.

## a. PJM's First Study Indicates that UTCs Affect Unit Commitment and Affect Balancing Operating Reserve Charges.

The question raised by PJM's first study was not whether UTCs affect Balancing Operating Reserve Charges, but the degree to which UTCs have an impact on Balancing Operating Reserves. The study suggested that a threshold for defining a meaningful impact of UTCs on Balancing Operating Reserves be determined through further analysis. Rather

<sup>&</sup>lt;sup>33</sup> See PJM June 5<sup>th</sup> UTC Study (first study) and PJM Presentation to MC Webinar, June 24, 2013 (second study) which can be accessed at: <<u>http://www.pjm.com/~/media/ committees-groups/task-forces/ttf/20120607/20120607-utc-analysis-construction-presentation.ashx</u>> ("PJM June 24<sup>th</sup> UTC Study").

than pursue any further analysis, PJM suggested, after a request from the Financial Marketers, that the task force be eliminated, which it was.

## b. PJM's Second Study Indicates that UTCs Affect Unit Commitment and Therefore Can Affect Balancing Operating Reserve Charges.

Financial Marketers claim (at 6) erroneously that in PJM's second study "PJM found that UTCs do not cause operating reserve charges." PJM's second study did not indicate that UTCs do not affect operating reserve charges. What PJM did conclude was that UTCs can contribute to convergence between day ahead and real time congestion.<sup>34</sup> While the presentation of the second study did not directly provide unit commitment effects, analysis of the resultant data by the Market Monitor did show unit commitment effects.<sup>35</sup> In addition, the finding that UTCs can contribute to convergence if there is an effect on unit commitment and dispatch. UTCs cannot contribute to convergence if they cannot affect unit commitment and dispatch.

# D. The Record Does Not Support Treating UTCs Differently With Respect to Operating Reserve Charges.

There are no data and no results that support the argument that up to congestion transactions should be treated differently than other virtuals with respect to the payment of operating reserve charges. The Market Monitor has shown that UTCs, like INCs and DECs, can affect day ahead unit commitment and dispatch and that therefore UTCs, like INCs and DECs, can affect the Operating Reserve Charges.<sup>36</sup> Financial Marketers state (at 6) that "the IMM continues repeating this allegation without substantiation or acknowledgement of any

<sup>&</sup>lt;sup>34</sup> PJM June 24<sup>th</sup> UTC Study at 6.

<sup>&</sup>lt;sup>35</sup> Market Monitor Report, Member Committee Webinar (June 24, 2013) at 14–19, which can be accessed at: <<u>http://www.monitoringanalytics.com/reports/Presentations/2013/IMM\_MC\_Market\_Monitor\_Report\_201</u> 30624.pdf> ("IMM June 24<sup>th</sup> Report").

<sup>&</sup>lt;sup>36</sup> IMM June 24<sup>th</sup> Report.

facts or data to the contrary." This claim ignores facts and data that demonstrate that UTC transactions do affect unit commitment. Most recently, at the MC webinar of June 24, 2013, the Market Monitor provided facts and data from PJM's own most current study that indicate that UTC transactions do affect unit commitment and dispatch.<sup>37</sup> The Market Monitor also presented the results of analysis based on PROBE software simulations for each of the five days that PJM ran its Alstom based UTC analysis, which indicated unit commitment effects.<sup>38</sup> The Market Monitor also provided analysis, based on data from PJM Alstom based UTC study, that indicates there is no evidence that UTCs, in net, contribute to price convergence between the day ahead and real time market.

The Market Monitor recommends that UTCs be treated in a manner that is consistent with other virtual bids, and every other source of deviations that can affect unit commitment. There is no data or information to support any other approach. If corroborated analysis supports a different approach then a different approach can be implemented at that time.

<sup>&</sup>lt;sup>37</sup> IMM June 24<sup>th</sup> Report.

<sup>&</sup>lt;sup>38</sup> *Id.* at 19.

## **II. CONCLUSION**

The Market Monitor respectfully requests that the Commission afford due consideration to these comments as the Commission resolves the issues raised in this proceeding.

Respectfully submitted,

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Dated: August 2, 2013

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### **CERTIFICATE OF SERVICE**

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

Dated at Eagleville, Pennsylvania, this 2<sup>nd</sup> day of August, 2013.

Afrey Maryes

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