

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

**DC ENERGY, LLC AND** )  
**DC ENERGY MID-ATLANTIC, LLC,** )  
 )  
**COMPLAINANTS** )  
 )  
**V.** )  
 )  
**PJM INTERCONNECTION, L.L.C.,** )  
 )  
**RESPONDENT.** )  
 )

**Docket No. EL12-\_\_-000**

**COMPLAINT OF DC ENERGY, LLC AND  
DC ENERGY MID-ATLANTIC, LLC**

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**COMPLAINT OF DC ENERGY, LLC AND  
DC ENERGY MID-ATLANTIC, LLC**

Pursuant to Federal Power Act Sections 206 and 306,<sup>1</sup> and Rule 206,<sup>2</sup> DC Energy, LLC (“DC Energy”) and DC Energy Mid-Atlantic, LLC (“DCE Mid-Atlantic,” and together, the “Companies”) submit this complaint (“Complaint”) in response to a recent letter from PJM Interconnection, L.L.C. (“PJM”) in which PJM notifies the Companies that PJM will retroactively unwind certain transactions known as internal bilateral transactions (“IBTs”)<sup>3</sup> and re-bill the Companies for balancing operating reserves charges retroactive to July 2009 (the “PJM Proposal”). The Companies emphatically oppose the PJM Proposal on factual, policy and legal grounds. Recognizing that PJM and the Companies need to resolve these issues, PJM graciously filed a request for limited waiver in Docket No. ER12-195-000 on October 26, 2011 to suspend retroactive resettlement, re-billing and associated payments pending the

<sup>1</sup> 16 U.S.C. §§ 824e, 825e (2006).

<sup>2</sup> 18 C.F.R. § 385.206 (2011).

<sup>3</sup> Section 1.7.10(a) of the Appendix to Attachment K of the PJM Open Access Transmission Tariff (“Tariff”) and §1.7.10(a) of Schedule 1 of the Operating Agreement describes bilateral transactions as “contracts for the purchase or sale of electric energy” to or from Market Participants or any other entity. A bilateral transaction that sources and sinks within PJM is an internal bilateral transaction or “IBT.” Schedule 1 of the Operating Agreement and the Appendix to Attachment K of the PJM Tariff are the same. This Complaint refers to the Tariff’s Attachment K Appendix.

Commission's determinations on the Complaint. The Companies appreciate the cooperation and willingness to discuss the issues that PJM has shown to date. But for PJM's Proposal to retroactively re-bill the Companies, the Companies believe that they would have been able to work with PJM and other market participants to address PJM's concerns on a prospective basis as part of a stakeholder process.

For the reasons explained below, the Companies request that the Commission issue an order: (a) rejecting the PJM Proposal because the Companies have complied with all IBT requirements; (b) alternatively granting a permanent waiver of any such requirement or of any re-billing and associated payment requirements; or (c) only if the Commission does not adopt either of the foregoing, setting the issues in this proceeding for hearing and holding the hearing in abeyance pending proceedings before a settlement judge to determine whether expedient resolution of this matter is feasible.

#### **EXECUTIVE SUMMARY**

The Companies have engaged in IBTs through use of PJM's eSchedule system and associated virtual transactions that were balanced with the IBTs ("Transactions") and not subject to balancing operating reserves ("Deviation") charges. After accepting the Companies' eSchedules for over five years, PJM has decided retroactively to unwind all of the Companies' IBTs since July of 2009 through July 2011 ("Retroactive Period"), which will result in energy resettlement for the Companies, and to issue retroactive re-bills for Deviation charges retroactively-created by unwinding the Companies' IBTs.<sup>4</sup> PJM claims the Companies IBTs did not satisfy a specific provision of PJM's - Tariff Attachment K, Appendix, Section 1.7.10(a). It

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<sup>4</sup> The Companies' IBTs in real-time net the Companies virtual transactions day-ahead, leaving no Deviations. By retroactively unwinding the Companies' IBTs, PJM artificially creates Deviations dating back to transactions completed in 2009 for the purpose of creating balancing operating reserve charges. This is discussed in greater detail infra section II.C.

is PJM's position that the Transactions did not "contemplate the physical transfer of energy."<sup>5</sup> On this basis, PJM concludes that the Companies' IBTs should not have been scheduled (using PJM's eScheduling system) and the Companies are now subject to retroactive Deviation charges.<sup>6</sup>

As explained in great detail below and in the supporting affidavits of Dr. Andrew J. Stevens<sup>7</sup> and Former Commissioner William Massey:<sup>8</sup>

- (a) the Companies fully satisfy the "physical transfer" requirement applicable to IBTs;
- (b) any ambiguity in the Tariff and Operating Agreement should be resolved in favor of the Companies which relied upon PJM-issued materials and the consistent acceptance of the Companies' eSchedules;
- (c) assuming for the sake of argument that the Transactions did not satisfy an IBT requirement, under the circumstances of this case, the Companies satisfy the requirements for and should receive a permanent waiver of the requirement or of retroactive resettlement and re-billing. The Companies' IBT activities did no harm to other market participants and, in fact, improved market efficiency by converging the day-ahead and real-time markets. Furthermore, unwinding the transactions will do harm to the Companies and create an unfair windfall for others;
- (d) there is no basis upon which to discriminate between the Companies' transactions and the IBTs of other market participants, and selective enforcement of PJM's newly articulated Tariff interpretation would be unduly discriminatory and unlawful;

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<sup>5</sup> Attachment A contains PJM's October 20, 2011 notice, entitled "Billing Adjustment Relating To Internal Bilateral Transactions" ("PJM Notification"). The notice states PJM's conclusion that the Companies' IBTs did not contemplate the physical transfer of energy.

<sup>6</sup> PJM is calculating the amount to be billed and has provided an early estimate in the tens of millions of dollars.

<sup>7</sup> Attachment B, Affidavit of Dr. Andrew J. Stevens ("Stevens Affidavit").

<sup>8</sup> Attachment C, Affidavit of Former Commissioner William L. Massey ("Massey Affidavit").

(e) only if the Commission were not to rule summarily that the Transactions satisfied the IBT requirements or that waiver is appropriate, then the Companies request a hearing on all of the issues in this case to be held in abeyance pending proceedings before a settlement judge to determine whether an expedient resolution of those issues is feasible.

The facts of this case are unique. Before engaging in Transactions, in 2006, DC Energy communicated on several occasions with PJM, including a letter to responsible PJM staff to explain the Companies' proposed use of IBTs specifically to balance virtual transactions so that the Companies would be able to engage in profitable lower margin transactions to converge day-ahead and real-time locational marginal prices ("LMP").<sup>9</sup> The Companies notified PJM of the proposed transactions between the two DC Energy affiliates and PJM did not have or express any objections before the Companies commenced the Transactions.

For over five years, the Companies in a consistent manner engaged in Transactions through the eSchedule tool. For over five years, PJM consistently settled the transactions and did not apply Deviation charges to the associated virtual transactions that were balanced with the IBTs. During this entire time, the Companies' status as PJM market participants did not change (*i.e.*, they never became a member of another sector, such as a load serving entity or a generator). PJM's settlement of the Companies' Transactions continued consistently with the Companies' expectations and understanding that their IBTs were fully consistent with the Tariff. Then, in July of 2011, PJM notified the Companies that their Transactions may not satisfy PJM's interpretation of the "contemplate physical transfer" requirement and that PJM may have to back-bill the Companies for Deviation charges.

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<sup>9</sup> Stevens Affidavit at P 49.



It was a surprise to the Companies when PJM, in July of 2011, asserted that a 2008 Tariff filing implementing “clarifications” to reduce credit risk exposure to PJM members altered the Tariff to disallow the Companies’ IBTs. In reading the Tariff and related PJM materials, the Companies were completely unaware that this was one of the intents of the December 2, 2008 filing discussed herein (the “2008 Credit Risk Filing”)<sup>10</sup> or that PJM had decided that previously accepted IBTs could no longer be deemed acceptable by PJM. In fact, the Tariff still employed the same language regarding “contemplating physical transfers.” Moreover, the stakeholder meeting materials leading up to the amendments did not place stakeholders on notice that there was a change in the requirement. The Companies had no reason to believe the previous interpretation had changed.

In addition, the PJM Proposal is being conducted under potentially unduly discriminatory circumstances. IBTs are used by many market participants and in substantial volumes. PJM has not yet defined the term “contemplate physical transfer.” Consequently, it is not possible to differentiate the Companies’ use of IBTs from other market participants’ use of IBTs. A previously unarticulated Tariff interpretation should not be enforced without adequate notice. To implement a term that has not yet been clearly defined would create wide-spread confusion and potential risk which will impede rational and predictable markets.<sup>11</sup>

Identical or similarly structured transactions by other market participants may be subject to new risks and uncertainty. Despite evidence that numerous parties routinely engage in IBTs of a wide variety, including: (i) IBTs that are used as offsets or to balance real-time Deviations, including those arising from virtual transactions, (ii) IBTs that are settled in the day-ahead market as well as the real-time market, (iii) IBTs that are transacted at hubs where there are no

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<sup>10</sup> PJM Interconnection, L.L.C., Docket No. ER09-368-000, Dec. 2, 2008, Filing Letter at 1 (“2008 Credit Risk Filing” or the “Filing”).

<sup>11</sup> Massey Affidavit at P 27.

generators or load, and (iv) IBTs that are transacted by non-load serving entities or generation entities such as those acting as Purchase and Sale Entities (“PSE”) or power marketers, it is unclear what the distinction between these forms and the Companies’ Transactions is. The distinction is not stated in the Tariff.

The Companies believe many market participants - - generation owners, load serving entities and other power marketers<sup>12</sup> -- are engaged in IBTs that are functionally identical to the Transactions. These entities should be on notice that PJM’s new interpretation could result in retroactive unwinding and re-billing of already settled IBTs and related transactions. These types of risks are unpredictable because they are predicated on a lack of adequate definition and notice, and result in charges that are bad for consumers. Under the present circumstances, the previously prevailing commercially reasonable interpretation should be upheld until the tariff is amended prospectively under section 205 of the Federal Power Act.

## **II. DESCRIPTION OF PARTIES, TRANSACTIONS**

### **A. DC Energy, LLC and DC Energy Mid-Atlantic, LLC**

DC Energy is a Delaware limited liability company. It operates under a Commission-approved market-based rate tariff, sells and buys electricity at wholesale, engages in transactions in PJM’s Interchange Energy Market (“IEM”), and buys and sells financial transmission rights (“FTRs”). DC Energy is a PJM Market Participant.

Like DC Energy, DCE Mid-Atlantic is a Delaware limited liability company with Commission-approved market-based rate tariff authorization. DCE Mid-Atlantic sells and buys electricity at wholesale, engages in transactions in PJM’s IEM, buys and sells FTRs, and is a separate PJM Market Participant.

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<sup>12</sup> For purposes of this Complaint, the Companies use the term power marketer to refer to market participants that contract for energy and engage in IBTs and virtual transactions but do not own generation or directly serve load.

Although the Companies are affiliated, each is a separate corporate entity with separate financing and different market positions and liabilities.

**B. PJM**

PJM is the transmission provider and regional transmission organization (“RTO”) that coordinates the movement of wholesale electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. PJM operates a competitive wholesale electricity market and manages the high-voltage electricity grid to ensure reliability for more than 58 million people. PJM is responsible for long-term regional planning across its footprint and identifying effective and cost-efficient improvements to the grid to ensure reliability and economic benefits on a system wide basis. As an RTO, PJM administers day-ahead and real-time energy markets, FTR markets and capacity markets, verifies its own and market participant compliance with Tariff provisions, and settles all transactions that occur within the PJM markets, including issuing of invoices and distributing revenue among market participants.

**C. Explanation of the Companies’ Transactions**

The IBTs<sup>13</sup> between DC Energy and DCE Mid-Atlantic are typical of transactions that provide for the physical transfer of energy from one market participant to another in PJM. The Companies’ IBTs are in the form of confirmations pursuant to an ISDA agreement with a power annex that provides for the physical delivery of energy in PJM. The IBT transfers energy to a market participant in PJM and allows market participants to transfer the responsibility of paying PJM for energy delivered by PJM and the right to be paid by PJM for the energy delivered to

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<sup>13</sup> IBTs may take several forms, including EEI master power sales agreements and ISDA transactions using the Power Annex that provides for the physical transfer of energy. The ISDA Power Annex is available at [http://www.isda.org/c\\_and\\_a/comm\\_der.html](http://www.isda.org/c_and_a/comm_der.html) (Power - North America). The Companies’ IBTs are not purely financial swaps - - they require the physical delivery of energy.

PJM. Delivery or transfer is accomplished by submitting a schedule of this delivery to PJM in the “eSchedule” tool maintained by PJM.<sup>14</sup>

The Companies entered into these Transactions in part because they recognized an opportunity to capture small incremental margins associated with “restoring energy flow” missing from the day-ahead market schedules but occurring in real-time. In other words, through statistical and fundamental analysis of energy price and flow patterns over long periods, the Companies observed limited scenarios in which it appeared that other market participants systematically removed generation or load (and scheduled flow) from the day-ahead market when those were expected to be present in the real-time market.<sup>15</sup> For example, a Generation Owner who intends to generate 100 MW in every hour submits a day-ahead market schedule to do so, but then submits a 100 MW load decremental or “DEC” bid at the same injection point. PJM would see the supply offer and the DEC bid at the same location and for the same time periods as offsetting each other, thereby eliminating from the day-ahead market the net effect of the scheduled generation. Similarly, a load serving entity who would intend to consume 100 MW in every hour submits a day-ahead market schedule, but then submits a 100 MW supply incremental or “INC” bid at the same location. These combined actions unwind the expected flow to load in the day-ahead market. Generation and load can contract together using a real-time IBT effectively to transfer their obligations in the real-time market and offset Deviations associated with their INC and DEC. During the dispatch day, that generation (all other things equal) will be dispatched to serve load (*i.e.*, show up as real-time market flow). To reverse the divergence created by these transactions, the Companies transact the same structure in reverse,

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<sup>14</sup> See Stevens Affidavit, at P 4.

<sup>15</sup> In some cases it appeared that market participants systematically added excess generation or load (and scheduled flow) to the day-ahead market relative to the real-time market. The analysis in this Complaint applies equally to these cases.

including the submittal of virtual transactions to restore the missing energy flow and a real-time IBT to transfer the real-time energy obligations and effectuate the offset of Deviations.

These IBT-balanced virtual transactions benefited the PJM market because they drove greater convergence in day-ahead market and real-time market energy prices. Whereas the Generation Owner's DEC would reduce the supply that PJM sees at the injection point, which tends to raise the day-ahead market price (i.e., load exceeding generation), the Companies' IBT-balanced virtual transactions restored that flow, which tends to lower the day-ahead market price. RTOs, market monitors and the Commission have repeatedly acknowledged that price convergence between day-ahead market and real-time market prices improves efficiency and benefits markets and consumers.<sup>16</sup>

As discussed in detail by Dr. Stevens, the Companies' IBTs are functionally identical to the IBT that PJM has accepted (the "PJM Example IBT," Figure 3 in the Stevens Affidavit)<sup>17</sup> and examples of compliant-IBTs offered by PJM in training and guidance materials. The Companies' IBTs are used to offset certain virtual transactions, as discussed above. As Dr. Stevens and Dr. McNamara also explain, many PJM market participants, including but not limited to generation owners, suppliers, power marketers, and load serving entities, engage in the same type of transactions, that is, transactions that combine virtual transactions with IBTs, to effect wholesale purchases and sales of energy, and to balance virtual transactions.<sup>18</sup>

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<sup>16</sup> See, e.g., *California Indep. Sys. Operator Corp.*, 130 FERC ¶ 61,122, at P 30 (2010) (discussing the benefits of convergence bidding (CAISO's term for virtual bidding) and stating that it will improve market performance, including improved price convergence and reductions in market power); *California Indep. Sys. Operator Corp.*, 130 FERC ¶ 61,122, at P 75 (2005) (same); *Ameren Servs. Co. v. Midwest Indep. Sys. Operator, Inc.*, 125 FERC ¶ 61,161, at P 116 (2008) (stating "virtual transactions can provide benefits to Midwest ISO energy markets by reducing day-ahead market prices under certain circumstances"), *order on reh'g*, 127 FERC ¶ 61,121, at P 45 (2009) ("one of the principal benefits of virtual trading is day-ahead and real-time price convergence").

<sup>17</sup> In discussions with the Companies, PJM staff confirmed that the PJM Example IBT was in fact a form of IBT compliant under PJM's Tariff.

<sup>18</sup> Attachment D, Affidavit of Dr. Ronald R. McNamara at 27, 28 ("McNamara Affidavit").

#### **D. Explanation of Deviation Charges.**

PJM's Tariff authorizes parties engaged in virtual transactions to also submit eSchedules for IBTs. In addition to providing for the sale and delivery of energy, these IBTs may be used to net differences between a market participant's day-ahead market and real-time market transactions. To the extent there are differences, PJM will assess a real-time market balancing operating reserve charge.<sup>19</sup> Where the difference is eliminated, e.g., by netting through the use of an IBT, PJM does not assess the Deviation charges.<sup>20</sup> A detailed explanation of this process was illustrated by PJM to its stakeholders in December 2005.<sup>21</sup>

This netting capability has remained in place through the present. PJM recently initiated a stakeholder process to evaluate whether to eliminate the ability in PJM markets to net virtual transactions with IBTs.<sup>22</sup> That process may result in a Section 205 filing by PJM to eliminate the use of IBTs for netting of future virtual transactions but will have no bearing regarding transactions entered into prior to the effective date of any such PJM filing (e.g., IBTs completed during the Retroactive Period). The Companies welcome this debate at the stakeholder level and support the process. However, this stakeholder process further confirms that this netting capability persists today and that the appropriateness of using IBTs to net Deviations that originate in a virtual transaction has been previously accepted. In view of the unarticulated interpretation inherent in the PJM Proposal, the current status of the use of IBTs for this purpose

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<sup>19</sup> See *PJM Interconnection, L.L.C.*, 125 FERC ¶ 61,244, at P 2 (2008) ("PJM charges market participants the cost of day-ahead reserves in proportion to their total cleared demand and decrement bids plus cleared exports for that operating day. Real-time reserves, meanwhile, are charged to members whose actual real-time transactions deviate from what they scheduled in the previous day-ahead market, and are allocated in proportion to the Deviations of all market participants on that day").

<sup>20</sup> As the Commission knows, other ISO/RTOs employ netting procedures with similar effect.

<sup>21</sup> See Attachment E which contains PJM's stakeholder presentation to the RMWG on December 20, 2005.

<sup>22</sup> See <http://www.pjm.com/~media/committees-groups/committees/mic/20111004/20111004-investigation-of-balancing-operating-reserve-netting-rules.ashx>.

is fraught with ambiguity. Such ambiguity (if it ever existed previously) constitutes a present deficiency in the current Tariff.

### III. HISTORY LEADING TO THE COMPLAINT

1. Since 2006, PJM's Tariff has always referred to the requirement that an IBT must "contemplate the physical transfer of energy." The year 2006 is relevant since that was the first year that the Companies engaged in the Transactions. At that time, as today, neither of the Companies was a generation owner or a load serving entity.

2. The Tariff provisions that apply to IBTs are contained in Tariff Attachment K, Appendix, Section 1.7.10(a) entitled "Bilateral Transactions." In 2006, before the Companies engaged in any Transactions, the Tariff identified the following relevant IBT requirements:

Market Participants may enter into bilateral contracts for the purchase or sale of electric energy to or from each other or any other entity[IBTs], subject to the obligations of Market Participants to make capacity resources available for dispatch by [PJM]. Bilateral arrangements that **contemplate the physical transfer of energy** to or from a Market Participant shall be reported to and coordinated with PJM] in accordance with this Schedule.

Market Participants shall have Spot Market back-up with respect to all bilateral transactions that are not dynamically scheduled pursuant to Section 1.12 and that are curtailed or interrupted for any reason (except for curtailments or interruptions through active load management for load located with the PJM Region.<sup>23</sup>

PJM's 2006 Tariff language, that authorized entities qualified as market participants in PJM to engage in and schedule bilateral contracts, included the "contemplate the physical transfer of energy" requirement.<sup>24</sup> The 2006 Tariff contained no definition for that phrase.

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<sup>23</sup> Emphasis added. Attachment F contains a copy of the Tariff language in effect in April 2006 prior to the Companies commencing their Transactions.

<sup>24</sup> The 2006 Tariff also required parties to IBTs to "have access to the PJM Interchange Energy Market as a back-up source of energy." This requirement too continues today.

3. Prior to engaging in their first Transaction, the Companies took several reasonable steps to ensure that their IBTs would comply with the Tariff. First, the Companies carefully reviewed the Tariff, training and other guidance materials published by PJM to understand the operations of and any limitation on the use of an IBT. Some of the materials on which the Companies relied remain posted as training and guidelines on PJM's website today, including the IBT Training Video "Internal\_Transactions\_&\_eSchedules."<sup>25</sup> That training was particularly relevant because it walked through, step-by-step, the use of IBTs to net day-ahead market and real-time market Deviations to minimize the application of Deviation charges.

4. Second, following their review, the Companies engaged in several conversations with PJM staff.<sup>26</sup>

5. Third, on April 4, 2006 the Companies followed-up those phone calls and in-person discussions with a letter to Dr. Bowring to confirm the Companies' understanding, ensure PJM that the proposed Transactions would be fully compliant with the Tariff, and request that PJM identify any concerns with the Transactions before the Companies engaged in their first Transaction (the "April 2006 Letter").<sup>27</sup> The Companies carefully explained their objectives and rationale:

We envision the new DC Energy Mid-Atlantic as a vehicle through which we will expand our activity into PJM internal bilateral transactions. We have begun to explore this market and believe that investment opportunity exists and that the market would benefit from increased participation. Initially, and to balance the DC Energy Mid-Atlantic portfolio, DC Energy will establish an internal bilateral contract with DC Energy Mid-Atlantic at the PJM western hub. Using this internal bilateral DC Energy Mid-Atlantic will transfer average real-time power-price risk to DC Energy thus

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<sup>25</sup> This video was used in the 2005 "Internal Transactions: eSchedules" presentation by Glenn Boyle of PJM instructing in the use of eSchedules of Internal Transactions.

<sup>26</sup> Stevens Affidavit at P 49.

<sup>27</sup> See Attachment G.



allowing it to focus on the “local” congestion issues and to develop the internal bilateral market without being distracted by a significant real-time power price position. In addition, the internal bilateral contract between DC Energy Mid-Atlantic and DC Energy will provide a synergistic offset to expected Deviations in the Real-Time market.

DC Energy explained, based on conversations with PJM staff, why its proposed Transactions were Tariff-compliant:

We believe this new structure and the internal bilateral transaction at the PJM trading hub are consistent with and permitted by the PJM tariff and will have a beneficial, pro-efficiency effect on the functioning of the PJM markets. This new structure will assist in reducing the RT OR charges we are currently assessed, through the direct result of applicable netting rules involving INC and DEC positions and internal sales and purchases. **(These were described in a PJM presentation entitled, “Balancing Operating Reserve Examples” in a December 20, 2005 Reserve Market Working Group meeting,** wherein PJM explained how parties to virtual transactions can act within the rules of the PJM tariff to reduce Balancing Market OR charges with the use of internal bilateral transactions.) By reducing the cost of transacting in the Virtual Energy market we will be able to increase our participation by addressing convergence opportunities with thinner margins than would otherwise be economic, benefiting the market as a whole. Our new structure will not have any adverse impact on market clearing prices, the market, competition or efficiency. Quite the contrary, as we discuss above, we expect our activity will enhance market efficiency.<sup>28</sup>

The letter ended with DC Energy inviting any questions or concerns that PJM might have regarding DC Energy’s proposed Transactions.

6. The April 2006 Letter laid out in detail the Companies’ strategy for engaging in virtual transactions and IBTs. The Companies took every reasonable step to ensure compliance with the Tariff, including giving PJM the last opportunity to identify any problems with the

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<sup>28</sup> *Id.* (emphasis added).

Companies' proposal. PJM staff did not identify any concerns. PJM staff certainly **did not** say then that the Transactions would violate Tariff because they did not contemplate the physical transfer of energy.

7. On May 13, 2006, more than five weeks after delivering the April 2006 Letter to PJM, the Companies submitted a schedule for their first IBT in PJM.

8. On October 27, 2008, approximately two years after the Companies' first Transaction, PJM scheduled a meeting of its Credit Risk Management Steering Committee ("CRMSC")<sup>29</sup> to discuss potential changes to the Tariff to address default risk management. In preparation, PJM provided materials including specific guidance as to the types of bilateral transactions, including IBTs, that satisfy Tariff requirements.

9. The Companies reviewed the examples discussed at the CRMSC meeting and confirmed that the IBTs continued to be consistent with the Tariff. In particular, the Companies' IBTs were consistent with PJM Example No. 3, which showed a marketer entering an IBT sourced from a non-generator node at the Western Hub to another marketer sunk at a non-load serving entity node, also located at the Western Hub. This is exactly the type of IBT that the Companies use.<sup>30</sup>

10. On December 2, 2008 PJM filed the 2008 Credit Risk Filing and submitted what it described as "clarifications" to "reduce credit risk exposure to PJM members."<sup>31</sup> Citing then-recent losses of millions of dollars from defaults by Power Edge, LLC and Lehman Brothers

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<sup>29</sup> The CRMSC is a PJM stakeholder committee that is responsible to "discuss and recommend courses of action to address credit risk management enhancements." See CRMSC Charter at <http://ftp.pjm.com/committees-and-groups/closed-groups/~media/committees-groups/committees/crmsc/postings/20080407-crm-sc-charter.ashx>. The Charter makes no reference to changes regarding bilateral transactions.

<sup>30</sup> Attachment H contains PJM's Example 3 (the "Western Hub Example"). See Stevens Affidavit at P 55.

<sup>31</sup> 2008 Credit Risk Filing at 1.

Commodity Services, Inc., PJM proposed revisions to its Tariff to reduce credit exposure and better manage the remaining exposure.<sup>32</sup>

Through this filing, PJM is revising its credit policy (Attachment Q to the PJM Tariff) to strengthen PJM credit requirements so as to reduce credit risk, by clarifying credit requirements for certain transactions and by improving the matching of credit requirements to expected activity. Through these clarifications and improvements, PJM will reduce the mutualized default risk among market participants, which the Commission's Policy Statement on Electric Creditworthiness emphasized as an important goal. In addition, the Commission has "emphasized the importance of refining an RTO's credit policy with stakeholder input and submitting such refinements for Commission approval as the RTO gains more experience in its markets." This filing reflects precisely such refinements.<sup>33</sup>

PJM described the revisions in its Filing as falling into six categories. PJM included bilateral transactions in Category 5, which it described as "clarification of the nature and legal consequences of certain bilateral transactions ...."<sup>34</sup>

PJM's clarification explained that a bilateral transaction is a "non-pool" transaction[ ]" and, therefore, "does not establish credit requirements for such transactions ..."<sup>35</sup> PJM clarified that "the parties to the transactions are entirely responsible for performance of bilaterals; the transactions do not expose the PJM pool to the risks of defaults; and PJM will not mutualize such defaults among the PJM members."<sup>36</sup>

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<sup>32</sup> *Id.* at 1-2.

<sup>33</sup> *Id.* at 3 (footnotes omitted).

<sup>34</sup> *Id.*

<sup>35</sup> *Id.* at 9.

<sup>36</sup> *Id.*

In summary, PJM explained that its “clarifications” will “eliminate existing ambiguity as to the legal effect of these eTools and better ensure that the PJM members are protected from credit exposures arising from bilateral transactions.”<sup>37</sup>

PJM intended its clarifications to facilitate transactions by “matching [ ] what was previously one participant’s purchase from the PJM pool and a separate participant’s sale into the PJM pool,” i.e., a netting or offset by market participants.<sup>38</sup> PJM explained that

[b]y matching the purchase and sale bilaterally, market participants can elect to manage for themselves the credit exposure created, in particular, by the purchase, and avoid the financial security collateral that would otherwise be required by PJM to secure the exposure resulting from the purchase out of the pool. These changes, accordingly, represent an opportunity for market participants to reduce credit costs and permit them greater efficiency in deploying capital to support their transaction activity.<sup>39</sup>

Rather than suggesting that market participants could not use the IBTs to offset or minimize charges, PJM explicitly discusses how market participants can use IBTs to manage and minimize transaction costs and exposures, while still ensuring PJM does not experience credit risk associated with IBTs. The minimization of costs is consistent with earlier training materials.

PJM implemented its clarification by revising Section 1.7.10(a) of the Appendix. These clarifications are summarized as follows:

(i) “[T]itle to energy that is the subject of a bilateral transaction passes to the buyer at the source specified by the parties.”<sup>40</sup> The purpose of this clarification is to make clear which of the two parties to the bilateral transaction is transacting with PJM.<sup>41</sup>

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<sup>37</sup> *Id.*

<sup>38</sup> *Id.*

<sup>39</sup> Filing at 9-10.

<sup>40</sup> Filing at 10; *see* Section 1.7.10(a)(ii).

<sup>41</sup> Filing at 11.

(ii) “[P]arties to reported bilateral contracts shall use reasonable efforts to limit the megawatt hours of such transactions to amounts reflecting the expected load and other physical delivery obligations of the buyer under the bilateral contract.”<sup>42</sup> The purpose of this clarification is to “protect against reported bilateral transactions being used for something other than physical energy transactions.”<sup>43</sup> The Filing did not define physical energy transactions.

(iii) “[P]ayments for the energy associated with bilateral contracts shall be arranged between the parties to the contract and will not be billed or settled by PJM.”<sup>44</sup> The purpose of this clarification is to “protect other [PJM] members from defaults between the parties to bilateral contracts.”<sup>45</sup>

(iv) “[A] buyer under a bilateral contract shall guarantee and indemnify PJM and the PJM Members for the costs of any Spot Market Back-up [i.e., purchase to or sale from the PJM Interchange Energy market or “IEM”] that is used to meet seller’s obligation to deliver energy under the bilateral contract and for which the seller has not paid PJM.”<sup>46</sup> Further, following a default to PJM, PJM shall “stop accepting new eSchedules or Enhanced Energy Scheduler reporting of bilaterals by the market participant ....”<sup>47</sup> Following a default under a bilateral transaction, all claims shall be resolved between the parties.<sup>48</sup> These clarifications were intended to ensure that the parties to a bilateral transaction, not PJM members, would be financially responsible for any default under a bilateral contract.<sup>49</sup>

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<sup>42</sup> *Id.*; see Section 1.7.10(a)(iii).

<sup>43</sup> Filing at 11.

<sup>44</sup> *Id.*; see Section 1.7.10(a)(iv).

<sup>45</sup> Filing at 11.

<sup>46</sup> *Id.* at 11-12; see Section 1.7.10(a)(v).

<sup>47</sup> Filing at 12; see Section 1.7.10(a)(v).

<sup>48</sup> *Id.*

<sup>49</sup> Filing at 12.

(v) “[B]ilateral contracts that do not contemplate the physical transfer of energy to or from a market participant shall not be reported to or coordinated with PJM.”<sup>50</sup> The purpose of this clarification is to ensure that “parties to purely financial ‘swaps’ or ‘contracts for differences’” arrange contract settlements outside PJM’s market.<sup>51</sup> The Filing reused the same “contemplate the physical transfer of energy” requirement that was part of the 2006 Tariff. The Filing did not define that term.<sup>52</sup>

The Commission’s January 30, 2009 Order<sup>53</sup> approving PJM’s Filing, with modification, focused on the reduction of PJM risk regarding bilateral contract defaults.<sup>54</sup>

The tariff provision, as filed by PJM, applies to all bilateral contracts as of the implementation date. As stated above, we agree with PJM that the parties to a bilateral transaction can assess the risks of a seller's default and negotiate appropriate contractual protections. Accordingly, we believe the tariff provision, as applied prospectively to new contracts, is just and reasonable and is therefore accepted effective February 1, 2009.<sup>55</sup>

11. In short, each of PJM’s clarifications in the 2008 Credit Risk Filing focused on minimizing or eliminating PJM member liability for bilateral contract defaults. PJM offered revisions to *clarify its existing procedures*. At no point did PJM suggest that it was revising its procedures to prohibit, for the first time, parties to virtual transactions from using IBTs to provide for physical transfers of energy or to eliminate Deviation charges; this approved transaction model had been in place since at least 2006 - - more than two years before the December 2008 Credit Risk Filing was made. The 2009 Risk Order neither discussed nor

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<sup>50</sup> *Id.*; see Section 1.7.10(a)(vi).

<sup>51</sup> Filing at 12.

<sup>52</sup> PJM explained that similar clarification to the Tariff would be provided in the future to address credit risk in other PJM markets including “FTR, capacity and ancillary services markets.” Filing at 13.

<sup>53</sup> *PJM Interconnection, L.L.C.*, 126 FERC ¶ 61,084 (2009) (“2009 Credit Risk Order”).

<sup>54</sup> *Id.* at P 15.

<sup>55</sup> *Id.*

approved any proposal by PJM to preclude market participants from engaging in virtual transactions and IBTs to minimize Deviation charges.

Importantly, PJM in the 2008 Credit Risk Filing continued to rely on the same undefined term - - contemplate the physical transfer of energy - - that was used in the 2006 Tariff. Reusing the same term that existed pre-2008 just reinforced the reasonable status quo interpretation that IBTs could be used in the Transactions to minimize Deviation charges and that the examples previously discussed and presented by PJM as acceptable IBTs continued to be acceptable.

The Filing noted that purely financial bilateral agreements could not use the eSchedule process.<sup>56</sup> By way of example, PJM referred to swaps and options,<sup>57</sup> not transactions that contemplate the physical transfer of energy that the Tariff requires to be scheduled with PJM like the Companies' IBTs. As Dr. McNamara and Dr. Stevens explain, the Companies' Transactions contemplate the physical transfer of energy.<sup>58</sup>

12. The 2009 Credit Risk Order approved what PJM requested in the Filing - - clarifications of PJM's existing Tariff intended to shield PJM members from bilateral contract defaults. The Filing and 2009 Credit Risk Order were silent as to the use of IBTs and virtual transactions to minimize Deviation charges; they did not discriminate among market participants by permitting some to continue using IBTs while prohibiting others.

13. Before, during, and after the date the Commission issued the 2009 Credit Risk Order, the Companies continued engaging in Transactions and PJM continued accepting the Companies' IBT eSchedules. Throughout that entire period, from 2006 until July 2011, the Companies neither owned generation nor served as a load serving entity ("LSE"); but the Companies have served as intermediaries to both.

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<sup>56</sup> Filing at 10 and footnote 13.

<sup>57</sup> *Id.*

<sup>58</sup> See McNamara Affidavit at P 9, 13; Stevens Affidavit at P 4-6.

14. During this same period, the Companies informally discussed the use of IBTs with other PJM market participants privately and at PJM stakeholder committee meetings. The Companies learned that it was a common practice in PJM energy markets for market participants with virtual transactions to engage in IBTs to facilitate physical delivery of energy and minimize Deviation charges.

15. Until July 2011, the Companies' Transactions continued as they had since 2006; the Companies continued submitting IBT eSchedules to PJM and relying on IBTs to effectuate delivery and title transfer. And, PJM continued to accept the Companies' eSchedules as it had done since their first Transaction in 2006. At no time did PJM bill the Companies for Deviation charges or hint that the Companies' Transactions may not be in compliance.

16. In July 2011, more than five years after the Companies first Transaction, and two and a half years after PJM made its 2008 Credit Risk Filing, Mr. Bresler and Dr. Bowring,<sup>59</sup> contacted the Companies by e-mail to discuss the Companies' use of IBTs.

17. On July 18, 2011, on behalf of the Companies, Mr. Bleiweis and Dr. Stevens participated in a conference call with Mr. Bresler and Dr. Bowring to discuss the Companies' IBTs. PJM's focus during the meeting was primarily on prospective changes to the use of IBTs. Following that meeting, out of an abundance of caution, the Companies immediately ceased their Transactions.

18. In a subsequent conference call on July 22, 2011, PJM's representatives again discussed a possible change in the prospective use of IBTs. Again, the focus of this discussion was principally on the prospective use of the IBT by the Companies.

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<sup>59</sup> Dr. Bowring had previously been a PJM employee responsible to monitor PJM's markets. Dr. Bowring currently is PJM's independent market monitor ("IMM"). Mr. Bresler currently is PJM's Vice President of Marketing Operations and Demand Resources.



19. On August 3, 2011, on behalf of the Companies, Mr. Chris Carpenter, and Mr. Bleiweis and Dr. Stevens met with Mr. Bresler and Dr. Bowring to provide a presentation of the Companies' Transactions. At the end of that meeting, PJM agreed to review and consider the presentation and the issues discussed. While PJM raised a concern about the retroactive period, the major emphasis of discussion was regarding the prospective use of the IBTs by the Companies.

20. One week later, at the August 11, 2011 PJM FTR Task Force stakeholder meeting, Mr. Bresler informed Mr. Bleiweis for the first time that PJM now believed that the Companies' use of IBTs was not in compliance with the Tariff and that PJM was considering seeking retroactive payment for Deviation charges for Transactions dating back to February 2010.<sup>60</sup>

21. On September 13, 2011, the Companies' representatives again met at PJM's headquarters with PJM representatives to explain why their Transactions were consistent with the Tariff and with IBTs transacted by numerous other market participants, including market participants that owned generation and served load. During that meeting, PJM representatives<sup>61</sup> raised two concerns: first, that the Companies' IBTs no longer satisfied the "contemplate physical transfer" requirements of the Tariff, and second, that these types of transactions when between affiliated market participants are somehow inconsistent with either the Tariff language or the intent of PJM's 2008 Credit Risk Filing.

22. The Companies and PJM continued cooperative and informative discussions into late October 2011 to resolve differences in their interpretation of the Tariff's physical transfer of energy requirement but were unsuccessful.

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<sup>60</sup> It is not clear to the Companies why PJM initially focused on February 2010 as the start of the Retroactive Period.

<sup>61</sup> PJM representatives attending the meeting included Vincent Duane (PJM's General Counsel), Andy Ott, Joe Bowring (PJM's IMM), and Stuart Bresler.

23. On October 20, 2011, PJM notified the Companies by letter that it would unwind the Companies' IBTs, perform energy resettlements, and re-bill Deviation charges back to July 2009.<sup>62</sup> According to the notification, PJM decided that the Companies IBTs:

do not qualify for reporting in eSchedules under Section 1.7.10(a) of Schedule 1 of the Amended and Restated Operating Agreement of PJM ("Operating Agreement") and the parallel provisions of Attachment K-Appendix of the PJM Open Access Transmission Tariff ("Tariff") **because the transactions did not contemplate the physical transfer of energy.**<sup>63</sup>

Accordingly, those cleared increment offers and decrement bids made by DC Energy and its affiliate during the period (and related to the inaccurately reported IBTs) should have been charged applicable Balancing Operating Reserve charges.

24. Recognizing the impact that the unwinding and re-bill would have on the Companies' ability to transact, on October 26, 2011, PJM graciously filed at the Commission a request for temporary waiver of its Tariff. PJM requested the temporary waiver to give the Companies an opportunity to file this Complaint and the Commission an opportunity to rule on the merits of this case before PJM engages in retroactive resettlement and re-billing.<sup>64</sup>

25. On October 27, 2011, the Companies filed this Complaint.

#### IV. ARGUMENTS

##### A. **Since 2006, the Companies' IBTs Have Complied With All Tariff Requirements Applicable to IBTs.**

PJM's conclusion, as communicated in the PJM Notification, that the Companies' IBTs do not contemplate the physical transfer of energy, is incorrect. The Companies have

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<sup>62</sup> See PJM Notification.

<sup>63</sup> PJM Notification at 1 (emphasis added).

<sup>64</sup> See *PJM Interconnection, L.L.C.*, Docket No. ER12-195-000, Request for Limited Tariff Waiver, Shortened Notice Period and Expedited Commission Action of PJM Interconnection, L.L.C. (filed Oct. 26, 2011).

consistently complied with all Tariff requirements applicable to IBTs, including the contemplation of a physical transfer of energy requirement, dating back to 2006.<sup>65</sup>

**1. The Companies' IBTs Satisfied the Tariff Requirements in 2006.**

In 2006, Tariff Attachment K Appendix Section 1.7.10(a) authorized entities qualified as market participants to engage in bilateral transactions as long as the market participants (i) made Capacity Resources available to PJM for dispatch, (ii) reported and coordinated those transactions with PJM, and (iii) had Spot Market Back-up to cover any energy shortfalls, and the bilateral transactions “contemplate[d] the physical transfer of energy to or from a market participant.”<sup>66</sup>

The Companies satisfied each applicable requirements.<sup>67</sup> They reported each transaction to and coordinated with PJM. The Companies relied on PJM’s real-time market to provide spot back-up energy and, thus, had spot market back-up for any shortfalls. Because the Companies do not own (and never have owned) any Capacity Resource, the condition to make Generation Capacity Resources available for dispatch either was not applicable or was satisfied because to the extent that the Companies had any generation capacity resources, they were available for dispatch.<sup>68</sup> And, importantly, as explained in Section III.A.3 --- below, the Companies’ IBTs in 2006 contemplated the physical transfer of energy.<sup>69</sup> The Companies were in full compliance

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<sup>65</sup> In his Affidavit, Dr. Stevens describes in detail the Companies’ IBTs, the steps taken by the Companies to ensure compliance with the Tariff between 2006 (when the Companies entered into their first IBT) and 2011, the PJM training and guidance information relied upon, and the April 2006 Letter.

<sup>66</sup> See Attachment F (Appendix K, Appendix, Section 1.7.10 as it existed in 2006).

<sup>67</sup> As explained in Sections II.3 through II.6, the Companies confirmed their compliance before ever engaging in these Transactions.

<sup>68</sup> Purely load serving entities that own no generation use IBTs and satisfy this requirement in the same manner.

<sup>69</sup> In addition, that the Companies contemplated physical transfers is evident by the fact that the Companies’ IBTs were converging the real-time market and the day-ahead market – something that systematically would only occur if the Companies were anticipating the correct physical flows, and submitting transactions to create the proper physical transfers that lead to convergence. Stevens Affidavit at P 5. It is important to note, then, that the Companies’ IBT-balanced virtual transactions harmed no one and, in fact, served to benefit the market. *Id.* at P 19-21. Furthermore, the Companies would not have engaged in the associated virtual transactions, unless they were able to submit the

with the 2006 IBT Tariff requirements.

**2. PJM's 2008 Credit Risk Filing Did Not Fundamentally Modify The "Contemplate Physical Transfer of Energy" Requirement.**

PJM's belief that the 2008 Credit Risk Filing imposed a new physical transfer requirement on IBTs is not supported.<sup>70</sup> First, as discussed above, the physical transfer requirement pre-dated the 2008 Credit Risk Filing. The Filing merely repeated the use of an existing term without offering any definition or additional clarification. Simply increasing the usage of an existing term did nothing to clarify its meaning; to the contrary, it reinforced the Companies' original understanding, based on two years of transactional experience, that their IBTs did contemplate physical transfer.

Second, nothing in the 2008 Credit Risk Filing letter and proposed Tariff revisions even suggested that PJM was proposing to narrow the contemplate physical transfer clause which pre-dates 2006. PJM's 2008 Credit Risk Filing was intended to reduce or insulate PJM members from default risk by strengthening PJM's credit requirements and by offering clarifications regarding, among other things, bilateral transactions. The Filing clarified that bilateral transactions do not establish credit requirements, that parties to bilateral contracts are responsible for performance, and that bilateral contracts do not expose the PJM pool or PJM members to default risk.<sup>71</sup> The 2008 Credit Risk Filing prohibited neither the use of IBTs to minimize exposure to Deviation charges nor parties to virtual transactions from using IBTs to provide for physical transfers of energy.<sup>72</sup>

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related IBTs due to the small profit margin; in essence, the market is not deprived of any Deviation charges they would have otherwise received. *Id.* at P 20.

<sup>70</sup> During a meeting on September 13, 2011 at PJM's headquarters, PJM representatives took the position that the Companies' Transactions were no longer consistent with the Tariff because PJM's 2008 Risk Credit Filing had imposed a new "physicality" requirement that the Companies' IBTs did not satisfy.

<sup>71</sup> Filing at 9.

<sup>72</sup> See *supra* sections II.10 through 12.

As revised in the 2008 Credit Risk Filing, Section 1.7.10(a) required that title pass to the buyer where specified by the parties in the contract; that transaction quantities be reasonably limited; that payments be arranged between the parties to the bilateral contract; that the buyer under a bilateral contract indemnify PJM and PJM members from energy market purchase defaults by the seller; and that bilateral contracts that do not contemplate the transfer of physical energy (e.g., purely financial hedging instruments like contracts for differences and swaps without a physical settlement component) not be reported to PJM.<sup>73</sup> Each of these criteria, as explained by PJM, was intended to reduce default risk associated with all bilateral transactions.<sup>74</sup>

Likewise, the Commission's 2009 Credit Risk Order, which approved the 2008 Credit Risk Filing, focused on the reduction of risk to PJM and its market participants from defaulting bilateral transactions.<sup>75</sup> The Order says nothing about prohibiting, for the first time, parties to virtual transactions from using IBTs to provide for physical transfers of energy or to eliminate Deviation charges.

In summary, each of PJM's clarifications focused on minimizing or eliminating PJM member liability for bilateral contract defaults. The 2008 Credit Risk Filing did not narrow the IBTs allowed (i.e., if a bilateral transaction satisfied the physical transfer requirement in 2006, that same bilateral transaction should be deemed to qualify the physical requirement in 2009) and did not further restrict parties that engage in virtual transactions from also using IBTs - - an approved transaction model that had been in place since at least 2006. The 2009 Credit Risk Order did not discuss or approve a proposal by PJM to preclude market participants from engaging in virtual Transactions and IBTs to minimize Deviation charges or using IBTs to

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<sup>73</sup> *Id.*

<sup>74</sup> Section II.10 *supra* summarizes PJM's rationale for the 2008 Credit Risk Filing and each change.

<sup>75</sup> *Id.*

deliver energy. The Commission approved what PJM requested - - clarifications intended to shield PJM members from bilateral contract defaults.<sup>76</sup>

**3. The Companies' Transactions Contemplate the Physical Transfer of Energy To A Market Participant.**

PJM and the Companies agree that the term “contemplate the physical transfer of energy” is ambiguous or, at least that, the definition of “physical” is subject to multiple reasonable interpretations.<sup>77</sup> Where a tariff or contract term is ambiguous, the Commission will look to any clarification provided in the filing letter, common usage in the industry, and course of dealing. Under each of these methodologies, the Companies' IBTs contemplate the physical transfer of energy.

**(a) Filing Letters Offer No Clarification**

When a Tariff term is ambiguous, the Commission will look to the filing (or transmittal) letter. PJM's 2008 Credit Risk Filing letter offered no explanation of the term physical transfer, it merely reused the term that already existed in the Tariff.

**(b) The Transactions Contemplate Transfer Of Energy Consistent With Common Industry Usage.**

Absent clarification in a filing letter, the Commission will look to common industry usage to clarify the meaning of an undefined term. In *TC Ravenswood v. NYISO*,<sup>78</sup> the Commission examined the definition of the word “variable” in the context of the term “variable operating costs” in section 4.1.7a of the NYISO Services tariff. The Commission stated that:

In the absence of a clear definition of a term in the tariff, as is the case here, the Commission will generally define the term consistent with its common industry usage. Accordingly, we find

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<sup>76</sup> To date, PJM has not suggested that the Companies are in or at risk of default.

<sup>77</sup> For that reason, as discussed in Section II.3 through 6, the Companies discussed their prospective use of IBTs with PJM before engaging in their first IBT.

<sup>78</sup> *TC Ravenswood, LLC v. New York Indep. Sys. Operator, Inc.*, Order on Complaint and Establishing Hearing and Settlement Judge Procedures, 133 FERC ¶ 61,205, at P 46 (2010).

that the term “variable” operating costs as used in section 4.1.7a should be interpreted consistent with its common industry usage...

In the electric utility industry, market participants recognize the redispatch of energy, settlement of energy in the real-time interchange, the delivery of energy, and the transfer of title of energy from seller to buyer as common indicia of a physical transfer.<sup>79</sup> While each is sufficient to meet the characterization of a physical transfer the Companies’ Transactions satisfy the four: the Companies IBTs settle, deliver and transfer title to energy;<sup>80</sup> the Companies’ virtual transactions cause redispatch.<sup>81</sup>

First, the Transactions contemplate physical transfer by causing redispatch, since virtual transactions result in commitment and redispatch of generators that effects a physical transfer. That PJM imposes Deviation charges on parties engaged in virtual transactions reflects PJM’s recognition that virtual transactions cause the redispatch of generation.<sup>82</sup>

The Commission too recognizes that virtual transactions result in the dispatch of physical energy. The Commission has found that it is appropriate to charge parties engaged in virtual transactions a revenue sufficiency guarantee charge (to ensure sufficient revenue to compensate or make-whole generators committed and dispatched by the Midwest Independent Transmission Organization (“MISO”)) precisely because virtual supply transactions cause redispatch of generation.

At issue here is whether virtual supply offers are a cause of the incurrence of RSG costs, and if so, whether they should share in the allocation of the costs. As the example provided by Ameren

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<sup>79</sup> McNamara Affidavit, at 15.

<sup>80</sup> This is true to the extent that title is a defined characteristic of internal bilateral transactions. For a further discussion of this point, *see* Dr. Stevens’ Affidavit at P 55-56.

<sup>81</sup> *See* McNamara Affidavit at P 17-20.

<sup>82</sup> A virtual sale is an offer to sell energy in the Day-Ahead market at the Day-Ahead energy price. It necessarily involves the obligation to supply to PJM energy from a generation resource or through an energy contract the next day (the Dispatch Day) or to purchase replacement energy from PJM at the real-time price. The obligation to supply or purchase energy in the real-time market is a physical transfer, in this case a transfer between the Companies and PJM.

shows, virtual supply offers can cause RAC costs to increase and therefore they impact real-time revenue sufficiency. For this reason, we agree that virtual supply can affect RSG costs and, hence, we reject the Midwest ISO's proposal to prospectively eliminate entirely virtual supply transactions from the calculation of the RSG charge.<sup>83</sup>

The Commission specifically recognized that “[t]he accepted virtual supply offer in the example causes the higher cost unit to be committed.”<sup>84</sup> The Commission noted that PJM too applies “RSG-type” charges to virtual transactions.<sup>85</sup> The Commission reaffirmed its conclusion that virtual transactions cause the redispatch of generation. The Commission explained that “virtual supply offers accepted in the day-ahead market can require the commitment of physical resources in the RAC process....”<sup>86</sup> It is also important to note that certain virtuals also should be able and in certain circumstances do offset each other. In that regard, the IBTs are similarly offsetting the virtuals in the instant case. The offsetting or netting of virtuals is not inherently problematic.

Recognizing that virtual supply transactions cause physical energy to flow, the Commission has concluded that there is no valid reason to treat virtual transactions by other market participants differently than virtual transactions by load serving entities. The Commission recognized that virtual supply offers, whether made by financial traders or “market participants with physical load and generation,” could cause the redispatch of generation. “We find no basis to differentiate among virtual supply offers since any accepted virtual supply offer could result in physical unit commitment to meet the physical needs of the real-time energy market.”<sup>87</sup> MISO

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<sup>83</sup> *Midwest Indep. Transmission Sys. Operator, Inc.*, 115 FERC ¶ 61,108, at P48 (2006).

<sup>84</sup> *Id.* n.27.

<sup>85</sup> *Id.* at P 49.

<sup>86</sup> *Midwest Indep. Transmission Sys. Operator, Inc.*, 117 FERC ¶ 61,113, at P 108 (2006) (“2006 MISO Order”); see also *Midwest Indep. Transmission Sys. Operator, Inc.*, 118 FERC ¶ 61,212, at P 32 (2007) (stating that virtual offers result in unit commitment).

<sup>87</sup> 2006 MISO Order at P 111.



subsequently filed and the Commission accepted a revised revenue sufficiency guarantee rate that they believe expressly reflects the contribution to redispatch costs by virtual transactions.<sup>88</sup>

Second, as explained by Dr. Stevens, in sophisticated centralized markets like that operated by PJM, merely scheduling energy results in a physical transfer of energy.

PJM has as an inherent market structure in which PJM is the buyer of all supply delivered to the market and also is the supplier of all load. As a result, any bilateral transaction conducted between counterparties (i.e., not PJM) and scheduled for physical delivery necessarily involves a delivery to PJM and/or a purchase from PJM.<sup>89</sup>

PJM uses the bid and offer data from all transactions scheduled to commit and dispatch its markets. As Dr. Stevens explains: “For transactions wholly within an ISO market, there is no explicit tracking of title. All associated transactions (*e.g.*, imports, exports, purchases, sales, generation dispatched and load obligations) are simultaneously solved within the ISO’s security constrained optimal dispatch algorithm. The ISO effectively balances all schedules automatically.”<sup>90</sup>

Third, the IBTs contemplate physical transfer of energy because they are in the form of confirmations pursuant to an ISDA Master Agreement and Power Annex that provide for the physical delivery of energy in PJM. Delivery or transfer under the ISDA confirmation and Power Annex is accomplished by submitting a schedule through the eSchedule tool maintained by PJM.

The Companies’ ISDA Master Agreement and Power Annex, as modified by the applicable confirmation, includes specific provisions addressing the delivery of energy from

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<sup>88</sup> See *Midwest Indep. Sys. Operator, Inc.*, 134 FERC ¶ 61,264 (2011).

<sup>89</sup> Dr. Stevens Affidavit at P 64.

<sup>90</sup> *Id.* at P 65.

seller to buyer and effect a change in title to energy;<sup>91</sup> each indicia of a physical transfer. For example, Master Agreement section 2(a)(i) states: “Each party will make each payment or delivery specified in each Confirmation ....” Master Agreement section 2(a)(ii) provides that “Where settlement is by delivery ..., such delivery will be made for receipt on the due date in the manner customary for the relevant obligation ....” In accordance with Master Agreement section 3(a)(v), the parties to the agreement represent that their obligations under this agreement, which may include delivery of energy, constitute legal, valid and binding obligations that are enforceable. Master Agreement section 5(a)(ii) establishes that the failure to deliver when required, if not remedied, constitutes an event of default.

Power Annex Part 6(b) describes obligations and deliveries. Subsection (i) requires the seller to “sell and deliver, or cause to be delivered, the Quantity of the Product to the Delivery Point ....”<sup>92</sup> Subsection (i) requires the buyer to purchase and receive the Quantity at the Delivery Point and imposes on the seller the obligation to pay related delivery costs. Subsection (ii) requires the seller to schedule and, if required, provide for transmission to the Delivery Point. Power Annex section 6(c) provides remedies if seller fails to deliver or buyer fails to receive the Product. Power Annex section 6(g)(i) establishes that title to the Product transfers from seller to buyer at the delivery point. Moreover, there is no requirement that only a load serving entity or generator submit all IBTs. Intermediaries/marketers are permitted to submit IBTs. Marketers buy and resell energy at hubs and other locations while serving as intermediaries whom PJM charges for energy or whom PJM pays for energy in the PJM interchange energy market.<sup>93</sup>

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<sup>91</sup> This is true to the extent that title is a defined characteristic of internal bilateral transactions. For a further discussion on this point, *see* Stevens Affidavit at P 55 and P 65. *See also* McNamara Affidavit P 13, 20.

<sup>92</sup> Delivery Point is defined as “the point at which the Product will be delivered and received as specified in a Power Transaction.” Power Annex Part 6(i)(iv).

<sup>93</sup> Stevens Affidavit at P 63.

In short, the Companies' IBTs go beyond merely contemplating the physical transfer of energy; they obligate the seller to deliver energy to buyer at the Delivery Point. The bilateral agreements contain provisions for pricing and delivery, transfer of title, and default where seller fails to deliver. These are typical of the IBTs conducted in centralized energy markets like PJM's market.<sup>94</sup> The Companies' IBTs operate in like manner and are settled in the same way as those of generation owners and load serving entities -- IBTs that PJM appears to accept as compliant -- even though the latter too are based on an ISDA Master Agreement and Power Annex (or an EEI Master Agreement, which includes the same substantive provisions as the Power Annex).

**(c) Course of Performance By PJM And The Companies Over the Last Five Years Demonstrates That The Transactions Comply With The Tariff Requirements Including Contemplation of Physical Transfer Of Energy.**

Where the plain meaning of a filed rate is unclear and is "readily susceptible to different constructions or interpretations,"<sup>95</sup> the Commission will consider evidence of "course of performance" to assist in interpreting the tariff or contract.<sup>96</sup> As the Commission has repeatedly explained, while past practice is irrelevant when interpreting an unambiguous contract, where a contract or tariff is not clear on its face, the Commission will look to all relevant factors, including course of performance, to discern the meaning of the contract or tariff.<sup>97</sup>

<sup>94</sup> See Stevens Affidavit at P 4; P 54; P 62. See Dr. McNamara Affidavit at 5, 13.

<sup>95</sup> *New York Indep. Sys. Operator, Inc. v. Astoria Energy, LLC*, 118 FERC ¶ 61,216, at P 34 (2007).

<sup>96</sup> *Nicole Gas Prod., Ltd.*, 105 FERC P61,371, at P 10 (2003) ("*Nicole Gas*") ("When presented with a dispute concerning the interpretation of a tariff or contract, the Commission looks first to the tariff or contract itself... [I]f it cannot discern the meaning of the contract or tariff from the language of the contract or tariff, will it look to extrinsic evidence."); *Texas Eastern Transmission Corp.*, 53 FERC ¶ 61,293, at 61,298 (1990) (ordering ALJ to "consider all relevant factors such as course of dealing and other evidence of intent" related to a rate schedule).

<sup>97</sup> See *Southern Montana Elec. Generation & Transmission Coop. v. Northwestern Corp.*, 133 FERC ¶ 61,163, at P 66 (2010) ("As a matter of contract law, a prior course of dealing becomes significant only when contractual requirements are unclear and prior dealings can aid in contract interpretation."), citing *Restatement of the Law, Second, Contracts, § 203(b)* (express terms are given greater weight than course of performance, course of dealing, and usage of trade); *MMC Energy, Inc. v. Cal. Indep. Sys. Operator Corp.*, 123 FERC ¶ 61,251, at P 80 (2008); *Texas Eastern Transmission Corp.*, 53 FERC ¶ 61,293, at 61,298 (1990) (ordering ALJ to "consider all relevant factors such as course of dealing and other evidence of intent" related to a rate schedule).

Consideration of evidence of course of performance is consistent not only with Commission precedent and practice, but is required by the governing law of the PJM Operating Agreement<sup>98</sup> as well as the state law that would govern the parties' transactions in the absence of Commission regulation.<sup>99</sup> Where a substantive rule has not been preempted by federal law, the Commission must give due consideration to general principles of state law in contract interpretation issues.<sup>100</sup> These general principles include the U.C.C.<sup>101</sup>

Under §1-303 of the U.C.C., a "course of performance" is a sequence of conduct between the parties to a particular transaction that exists if: (1) the agreement of the parties with respect to the transaction involves repeated occasions for performance, and (2) the other party, with knowledge of the nature of the performance and opportunity for objection to it, accepts the performance or acquiesces in it without objection.<sup>102</sup> The Official Comment to this section observes that the course of actual performance by the parties is considered the best indication of what they intended the writing to mean.

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<sup>98</sup> Article 4.2 of the Operating Agreement states that the law of the state of Delaware shall apply to "[t]his Agreement and all questions with respect to the rights and obligations of the Members, the construction, enforcement and interpretation hereof... ."

<sup>99</sup> *Pennzoil Co. v. FERC*, 789 F.2d 1128, 1142 (5th Cir. 1986) ("the appropriate contract law to apply is the law that would govern the parties' dealings were there no regulation at all of the contract's subject matter), citing *Pennzoil Co. v. FERC*, 645 F.2d 360, 383-84 (5th Cir. 1981), *cert. denied*, 454 U.S. 1142 (1982) (citation omitted); *Erie Railroad Co. v. Tompkins*, 304 U.S. 64 (1938).

<sup>100</sup> *Id.* See also *So. Cal. Edison Co. v. FERC*, 502 F.3d 176, 180 (D.C. Cir. 2006).

<sup>101</sup> *Pennzoil Co. v. FERC*, 789 F.2d at 1142. The U.C.C. has been adopted in Delaware. Pennsylvania, the other state whose law might be relevant to the transactions in question as it is PJM's principal place of business, has also adopted the U.C.C.

<sup>102</sup> U.C.C. § 1-303(a). The provision is nearly identical as adopted by Delaware. Del. Code tit. 6 §1-303(a) provides:

§ 1-303. Course of performance, course of dealing, and usage of trade.

(a) A "course of performance" is a sequence of conduct between the parties to a particular transaction that exists if:

- (1) The agreement of the parties with respect to the transaction involves repeated occasions for performance by a party; and
- (2) The other party, with knowledge of the nature of the performance and opportunity for objection to it, accepts the performance or acquiesces in it without objection.

The Companies' and PJM's course of performance under the Tariff since 2006 is clear. The Companies routinely entered into Transactions, eScheduled their IBTs and paid whatever costs were invoiced by PJM, none of which included Deviation charges for the Transactions. PJM routinely accepted the Companies' IBT eSchedules, routinely invoiced the Companies, and for over five years, never questioned the legitimacy of the Transactions. In the face of an ambiguous Tariff, five years of consistent course of performance establishes that the Companies' Transactions satisfy the Tariff's IBT requirements.

Course of performance is relevant as long as it does not contradict the express terms of a contract.<sup>103</sup> Here, the Companies' and PJM's course of performance is entirely consistent with a reasonable interpretation that the Tariff's IBT requirements have been satisfied, and do not contradict any express terms. As a utility is required to follow its own tariff,<sup>104</sup> PJM's course of performance over five years must be viewed as an indication of the meaning of the provision at issue - - the contemplation of the physical transfer of energy. If PJM now wishes to alter the Tariff's IBT requirements, this change "must be memorialized in tariff provisions filed with and approved by the Commission."<sup>105</sup>

**(d) The Tariff Does Not Restrict eScheduling to Only Parties that are (i) Generation Owners or Load Serving Entities and (ii) Non-Affiliates.**

The Tariff does not support limiting the IBTs to certain types of market participants, such as only generation owners or load serving entities or to non-affiliated companies.

(i) The term physical transfer of energy could not have been intended to limit the use of bilateral transactions to only generation owners or load serving entities. If that was PJM's

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<sup>103</sup> *Century Power Corporation*, 53 FERC ¶ 61,240, at 61,992 (1990) ("When used to reveal the parties' intent in executing their contracts, the parties' course of performance can only explain and interpret; it may not vary or contradict the express terms of an agreement"), citing *Pennzoil Co. v. FERC*, 645 F.2d at 388-89 (5th Cir. 1981), also citing *Boston Edison Co. v. FERC*, 856 F.2d 361, 367-368 (1st Cir. 1988).

<sup>104</sup> *Nicole Gas* at P 10.

<sup>105</sup> *Id.*

intent, the Tariff would have used those terms. Generation Owner is defined as “[a]n entity that owns or otherwise controls and operates one or more operating generating units in the PJM Region.”<sup>106</sup> Load Serving Entity is defined as

any entity (or the duly designated agent of such an entity), including a load aggregator or power marketer, (i) serving end-users within the PJM Region, and (ii) that has been granted the authority or has an obligation pursuant to state or local law, regulation or franchise to sell electric energy to end-users located within the PJM Region. Load Serving Entity shall include any end-use customer that qualifies under state rules or a utility retail tariff to manage directly its own supply of electric power and energy and use of transmission and ancillary services.<sup>107</sup>

PJM uses these terms throughout the Tariff, but not in Appendix section 1.7.10(a). Therefore, the term physical transfer must be broader.

This broader interpretation - - that contemplation of physical transfer extends beyond Generation Owners and Load Serving Entities - - is supported by other terms that are relevant to sales and purchases, both virtual and from assets. For example, the Tariff does not distinguish between Generation Owners, Load Serving Entities and power marketers in its definition of terms applicable to virtual transactions and IBTs. Incremental Bid (“INC”) and Decrement Bid (“DEC”) have the same meaning for all market participants. The Tariff defines Decrement Bid as “a bid to purchase energy at a specified location in the Day-ahead Energy Market. An accepted Decrement Bid results in scheduled load at the specified location in the Day-ahead Energy Market.”<sup>108</sup> A Decrement Bid (purchase) may be submitted by a Market Buyer or a Market Supplier, without reference to whether the purchase will be to supply load or to engage in a virtual transaction. The term Increment Bid too applies to virtual and physical transactions

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<sup>106</sup> Tariff section 1.13F.

<sup>107</sup> Tariff Attachment DD, section 2.37 relies on the definition for Load Serving Entity contained in the PJM Reliability Assurance Agreement, section 1.44.

<sup>108</sup> See Attachment K, App. Section 1.3.1E.

without distinction. The Tariff defines Increment Bid as "an offer to sell energy at a specified location in the Day-ahead Energy Market. An accepted Increment Bid results in scheduled generation at the specified location in the Day-ahead Energy Market."<sup>109</sup> An Increment Bid may be submitted by a Market Buyer or Market Supplier for a physical or virtual sale. In other words, if PJM had intended to limit the use of IBTs to specific types of market participants, it would have used the defined terms in the Tariff to do so.

(ii) Similarly, if PJM had intended to prohibit affiliated companies from engaging and eScheduling IBTs, the Tariff would have contained an express prohibition. Section 1.7.10(a)(i) states that "Market Participants may enter into bilateral contracts for the purchase or sale of electric energy to or from each other or any other entity ...." DC Energy, LLC and DC Energy Mid-Atlantic, LLC are each an individual Market Participant. Section 1.7.10(a) contains no prohibition against affiliates engaging in and eScheduling bilateral transactions.

The Commission previously provided guidance to PJM regarding transactions between affiliates.<sup>110</sup> The Commission explained to PJM that companies have legitimate reasons for forming affiliates.

companies have legitimate, non-manipulative reasons to establish affiliates and that it was not just and reasonable for PJM, as a generic matter, to propose a tariff provision that automatically takes the profits of one affiliate to offset against the losses of another. Instead, the Commission found that the proper focus should be on establishing adequate credit requirements for all participants, regardless of their alleged motivations.<sup>111</sup>

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<sup>109</sup> Attachment K, App. Section 1.3.9A.

<sup>110</sup> *BJ Energy LLC, v. PJM Interconnection, L.L.C.* 127 FERC ¶ 61,006, at P 4 (2009) ("BJ Energy").

<sup>111</sup> *Id.*

PJM may not discriminate against affiliated companies by relying on the unsupported assumption that “affiliates have motivations or incentives to create riskier investment strategies than non-affiliates.”<sup>112</sup>

PJM has not established that its risks are limited to companies with affiliates. A company without an affiliate trading in PJM’s FTR markets can take as risky or more risky positions than a company with such an affiliate, and PJM’s proposal would not apply in this case. Indeed, two affiliated companies can each take risky positions that do not offset each other. PJM fails to explain why, if its proposed collateral requirements are sufficient in these situations, it should be entitled to an offset if it happens that an affiliate makes profits rather than incurs losses.<sup>113</sup>

PJM has not alleged that the Companies are in default of their obligations or have failed to satisfy PJM’s credit requirements. Any misgivings by PJM that the Companies’ IBTs violate the Tariff merely because they are IBTs among affiliates are misplaced. Moreover, DC Energy explained its affiliate structure to PJM before commencing Transactions and PJM raised no objection and accepted the eSchedules.

**4. The Companies’ IBTs are Functionally Identical to IBTs that PJM Has Concluded Are Compliant With The Tariff.**

As discussed in Dr. Stevens’ Affidavit, the Companies’ IBTs are functionally equivalent or identical to other IBTs that PJM deems acceptable, such as (1) the example highlighted by PJM at the August 3, 2011 meeting (the “PJM Example IBT”)<sup>114</sup> and (2) the example IBT sourced at the Western Hub and delivered to a non-load serving entity power marketer (“Western Hub IBT”).<sup>115</sup> Since there is no functional difference between the Companies’ IBTs and the two

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<sup>112</sup> *PJM Interconnection, L.L.C.*, 122 FERC ¶ 61,279, at P 57 (2008).

<sup>113</sup> *Id.*

<sup>114</sup> See Stevens Affidavit at P38 and Figure 3 for a representation of PJM’s Example IBT as PJM outlined it at the August 3, 2011, meeting.

<sup>115</sup> Attachment H contains the Western Hub IBT example provided by PJM in its training materials. PJM presented the Western Hub example during the CRMSC stakeholder process in late 2008 in a document entitled “Clarification



forms of IBT that PJM has accepted as Tariff compliant, the Companies IBT are complaint with the Tariff.

**The PJM Example IBT.** The relevant steps/components of the PJM Example IBT are as follows:

- i. Supplier offers to sell energy into the day-ahead market at Point A, the generator bus.
- ii. Supplier submits a virtual bid to buy energy in the day-ahead market at A (referred to as a DEC).<sup>116</sup>
- iii. Buyer schedules its expected load in the day-ahead market at Point B.
- iv. Buyer submits virtual offer to sell energy in the day-ahead market at B (referred to as an INC).<sup>117</sup>
- v. Supplier and Buyer enter into a real time IBT for delivery of the energy.
- vi. Ultimately, all transactions, except the cash settlement for the energy transfer of the IBT (which is settled directly between counterparties), have PJM as an intermediary. Assuming all offers to sell and bids to buy clear the day-ahead market, PJM acts as the buyer at A, and PJM acts as the supplier at B. But the combined effect of the Supplier's DEC at A and the Buyer's INC at B is to eliminate the IBT quantity (MW) from the day-ahead market as if the expected flow did not exist.
- vii. Under the IBT, PJM transfers the real-time market energy at A to the Buyer, but charges the Supplier for this real-time market energy at the real-time market locational marginal price at A.
- viii. Without the IBT, the Buyer's day-ahead market INC would obligate Buyer to buy back the energy in the real-time market at the real-time market price at B. However, as required by the IBT, PJM transfers the real-time market energy from

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of Internal Bilateral Transactions.” The Western Hub example was “Example 3: Western Hub IBT between Seller and a non-LSE Buyer.” As described by PJM, Buyer will take title to the energy at Western Hub and be a seller of the energy into the market at Western Hub.

<sup>116</sup> The offer to sell and the bid to buy cancel each other such that the offer to sell is no longer considered for scheduling or commitment in the day-ahead market. Note - because Supplier submits a DEC at A in the day-ahead market, it will be selling energy it does not consume into the real-time market and will receive the real-time market price at A.

<sup>117</sup> The bid to buy and the offer to sell cancel each other such that the bid to buy is no longer considered for scheduling or commitment in the day-ahead market. Note – because Buyer submits an INC at B in the day-ahead market, it will either replace that energy in the real-time market by generating or by buying energy through the PJM Interchange Energy Market at the real-time market price or pursuant to an IBT.

Supplier to the Buyer at B, thereby eliminating Buyer's obligation to pay the real-time market price associated with its INC.

In the PJM Example IBT, the Supplier in real-time does not sell energy directly to the Buyer and the Buyer in real-time does not buy energy directly from the Supplier. Under the IBT, purchases and sales occur with PJM through the PJM Interchange Energy Market. The parties contemplate that physical transfer will occur through PJM with physical title to the energy transferring from Supplier to Buyer. The IBT transfers the financial obligations such that the Seller does not get paid twice (by PJM, because of the DEC, and by the Buyer) and Buyer does not pay twice (to PJM, because of the INC, and to the Supplier).

**PJM's Western Hub Example.** This example represents a sale from the Western Hub to a non-load serving entity party (presumably a power marketer). As Dr. Stevens explains, this example is relevant for two reasons. First, it depicts a typical power marketer IBT between a non-generation owner and a non-load serving entity. Second, the Western Hub example is sourced from a hub (not a generator bus) and sunk at a non-load serving entity point at the Western Hub.<sup>118</sup> This example demonstrates that PJM does not intend that the Tariff limit IBTs to use by only generation owners and load serving entities. It also demonstrates that the source of energy can be the PJM Interchange Energy Market. The Companies' IBT is functionally identical.<sup>119</sup>

Market participants with and without generation or load routinely use virtual transactions in conjunction with IBTs, as well as other optimization strategies, in sophisticated centralized energy markets.

As illustrated above, the Companies' typical IBT is functionally identical to the PJM's IBT examples. In all cases, physical transfer of energy, which involves PJM as an intermediary

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<sup>118</sup> See Stevens Affidavit at P 55; Exhibit AJS-3.

<sup>119</sup> Stevens Affidavit Figure 4 contains a representation of the Companies' typical IBT.

in every transaction, is a function of the settlement adjustment made by PJM to the counterparties to the IBT. Without the IBT, market participants would be imbalanced as to their net exposure to the real-time market price for their energy. The IBT permits PJM to transfer the real-time energy from the seller to the buyer.

Without focusing on any substantive difference, PJM's position that the Companies' IBTs do not comply with the Tariff is not correct. The Tariff does not require that IBTs be limited to generation owners and load serving entities or coordinated with generator output and demand. There is no difference between a generator and a power marketer vis-à-vis the supply source that supplies the IBT when the spot interchange provider is PJM.<sup>120</sup> In the PJM Example IBT, the supplier, whether or not it owns generation, or whether such generation is running or not, or whether the generation may be in a planned or forced outage, can rely on PJM spot market purchases to serve its IBTs. Likewise, a load serving entity's load may fluctuate above or below expectation or be subject to curtailment, or the load serving entity may lose or gain load due to retail competition. Under these circumstances, power marketers and load serving entities equally rely on PJM spot market sales to serve their IBTs (neither has the ability to consume energy it otherwise would have purchased in the day-ahead market). Under any of these circumstances, PJM does not reject a generation owner or load serving entity's IBT or require the volumes under the IBT to change to equal generation sales or load purchases. Yet PJM's proposed interpretation would imply a distinction and a disparate treatment. PJM is unable to demonstrate that the Companies' IBTs do not comply with the Tariff.

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<sup>120</sup> This is clearly the case for a real time IBT in which the supplier is using a DEC transaction as the origination of the supply Deviation as in the PJM Example IBT. Such a situation would exist under any condition for a Generation Owner, whether the Generation unit is operational or off-line.

**5. The Companies' IBTs Satisfy the Remaining Tariff Requirements Applicable to IBTs.**

According to the October 20 PJM Notification and earlier discussions, PJM challenges the Companies' compliance only with respect to the contemplate physical transfer criterion; a challenge the Companies have disproved. However, to avoid any ambiguity, the Companies' IBTs also satisfy the remaining criteria applicable to IBTs.

The Companies' IBTs satisfy each of PJM's requirements in Section 1.7.10(a). Each IBT provides for the passing of title to energy between the parties to the agreement. Consistent with their IBTs, title passes from seller to buyer at the Delivery Point specified in the power transaction. The IBTs' quantities are limited to the amounts needed to offset the Companies' IBT-balanced INC and DEC volumes. In addition, in the typical Transaction, the volumes are specifically related to the restoration of physical flows present in the real-time market but otherwise missing from the day-ahead market. As such, the IBTs' quantities are directly related to the expected physical flows in the real-time market. Although each party to the IBTs independently settles its own day-ahead and real-time transactions with PJM, all payments under the IBT are settled between the IBT parties (not with PJM). Under the IBTs, the buyer is ultimately responsible for any failure to pay for spot market energy. Because the Companies do not own generation, they are not obligated to make a capacity resource available for PJM dispatch. Because every IBT contemplates the transfer physical energy, the Companies report each IBT to PJM via eSchedule and to the Commission in the Companies' Electric Quarterly Reports ("EQR"). Finally, the Companies rely on PJM's real-time energy market to supply energy as needed (Spot Market Back-up).

## 6. Summary

The Companies' IBTs were in complete compliance with PJM's Tariff. The Tariff in effect in 2006, when the Companies first began their IBTs, included the contemplate physical transfer of energy requirement. The IBT requirements did not change with the 2008 Credit Risk Filing; they were clarified, and the clarifications were focused exclusively on minimizing credit default risk for PJM and its members, not prohibiting, for the first time, parties to virtual transactions from using IBTs to provide for physical transfers of energy or to eliminate Deviation charges. PJM's acceptance of the Companies' IBTs for five and a half years demonstrates that the Tariff requirements, including the contemplation of physical transfer, were satisfied. Commission precedent, common industry usage, and PJM's course of performance for over five years demonstrate that the Companies' IBTs contemplate the physical transfer of energy.

Because the Companies' IBTs were compliant with the Tariff, and the Tariff provides a legitimate method to minimize exposure to Deviation charges, PJM lacks any reasonable basis on which to retroactively unwind the IBTs, resettle the Companies' energy transactions, and re-bill the Companies for Deviation charges. Finally, the Tariff does not preclude market participants that happen to be affiliated from engaging in IBTs.

### **B. PJM's Proposal To Retroactively Unwind The IBTs, Perform Retroactive Energy Resettlements, and Re-Bill The Companies for Deviation Charges Would Violate the Tariff and the Federal Power Act.**

PJM lacks the authority to unwind the IBTs, perform retroactive energy resettlements, and re-bill the Companies for Deviation charges. The Tariff, Commission precedent and the filed-rate doctrine preclude PJM from reinterpreting Tariff provisions retroactively and without adequate notice. PJM has authority to terminate IBT eSchedules under defined circumstances, but only if the parties are in default or if the IBTs have not been settled. The Companies' IBTs during the Retroactive Period settled months, and in many cases, years ago, and PJM has not

suggested that the Companies are in default.

**1. PJM Lacks The Authority To Reinterpret Existing Tariff Provisions And Apply That New Interpretation Retroactively.**

The 2008 Credit Risk Filing did not place market participants on notice that they could no longer use IBTs to minimize Deviation charges; PJM's Proposal violates the filed-rate doctrine.

PJM is limited to the authority provided to it under the Commission-approved Tariff and Operating Agreement. Section 205(c) of the FPA requires that public utilities file with the Commission the regulations that affect its rates and charges. Section 205(c) states that:

Under such rules and regulations as the Commission may prescribe, every public utility shall file with the Commission, within such time and in such form as the Commission may designate, and shall keep open in convenient form and place for public inspection schedules showing all rates and charges for any transmission or sale subject to the jurisdiction of the Commission, and the classifications, practices, and regulations affecting such rates and charges, together with all contracts which in any manner affect or relate to such rates, charges, classifications, and services.

The Commission found that "all practices that significantly affect rates, terms and conditions fall within the purview of section 205(c) of the FPA, and, therefore, must be included in a tariff filed with the Commission."<sup>121</sup>

Section 205(c) necessarily requires that PJM, a public utility, is limited to the authority granted to it by the Commission in the Tariff and Operating Agreement.<sup>122</sup> In *BJ Energy*, the Commission concluded that PJM lacked authority under the Tariff and Operating Agreement to withhold payment to market participants.<sup>123</sup> The Commission in *BJ Energy* concluded that

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<sup>121</sup> *California Indep. Sys. Operator Corp.*, 119 FERC ¶ 61,076, at P 656 (2007).

<sup>122</sup> See e.g., *BJ Energy*.

<sup>123</sup> *Id.* at P 20-22.

PJM's retention of funds violated the express language of the Tariff and directed PJM to make payment.<sup>124</sup>

This limitation in authority is the basis for the filed-rate doctrine and rule against retroactive rate making, each prohibiting PJM's retroactive proposal. A utility may not alter its rates without a section 205 filing and an advance notice period to customers.<sup>125</sup> If a utility alters its interpretation of its tariff, it follows that the utility must similarly provide adequate notice of its revised interpretation. Commission acceptance of PJM's Proposal would be tantamount to a retroactive revision to the filed rate without adequate notice, and as such is barred by the filed rate doctrine and the rule against retroactive ratemaking.

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.”<sup>126</sup> The related rule against retroactive ratemaking “prohibits the Commission from adjusting current rates to make up for a utility's over- or under-collection in prior periods.”<sup>127</sup> The D.C. Circuit Court of Appeals has previously explained that “[b]y authorizing only prospective rate changes, these doctrines ensure rate predictability ... and by preventing discriminatory pricing, they promote equity.”<sup>128</sup> The Court provided two examples where a rate adjustment may occur before a 205 filing is made: (1) where parties have notice the rate is tentative and (2) where customers agree to retroactive application.

Courts have recognized only two circumstances in which a rate adjustment may take effect prior to a section 205 filing: ***when parties have notice that a rate is tentative and may be later adjusted with retroactive effect, or when they have***

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<sup>124</sup> *Id.* at P 21-23.

<sup>125</sup> See FPA section 205.

<sup>126</sup> *Consol. Edison Co. of NY, Inc. v. FERC*, 347 F.3d 964, 969 (D.C. Cir. 2003) (“*Con Edison v. FERC*”) citing *Arkansas Louisiana Gas Co. v. Hall*, 453 U.S. 571, 577 (1981) (“*Ark. La. Gas v. Hall*”).

<sup>127</sup> *Con Edison v. FERC*, 347 F.3d at 969 citing *Towns of Concord, Norwood & Wellesley, Mass. v. FERC*, 955 F.2d 61 at 71 n.2 (D.C. Cir. 1992).

<sup>128</sup> *Con Edison v. FERC*, 347 F.3d at 969 citing *Columbia Gas Transmission Corp.*, 895 F.2d 791, 793 (D.C. Cir. 1990); *Exxon Co., U.S.A. v. FERC*, 182 F.3d 30, 49 (D.C. Cir. 1999).

*agreed to make a rate effective retroactively.* Neither of these circumstances undermines the twin goals of predictability and equity.<sup>129</sup>

Neither of these circumstances apply here. It is clear that accepting PJM's re-interpretation of the existing tariff provisions and applying that new interpretation retroactively to the Companies' IBTs would violate the filed rate doctrine and the related rule against retroactive ratemaking. First, the Companies had no notice that PJM would change its consistent and long-standing interpretation of the IBT tariff provisions. By letter dated April 4, 2006, the Companies laid out in detail their strategy for engaging in virtual transactions and IBTs. While PJM subsequently revised the IBT provisions in the Operating Agreement and Tariff (in December 2008), these revisions *clarified* PJM's existing procedures. Nowhere in the 2008 Credit Risk Filing did PJM suggest that it was revising its procedures or tariff interpretation to prohibit, for the first time, parties to virtual transactions from using IBTs to provide for physical transfers of energy or to eliminate Deviation charges. The Companies simply had no notice that PJM interpreted its Tariff and Operating Agreement in this manner until July 2011 - more than five years after they began engaging in the IBTs.

Second, as evinced by this Complaint, the Companies have not agreed to make PJM's revised Tariff interpretation effective retroactively.

Accordingly, neither of the legally cognizable grounds for making a retroactive rate adjustment have been satisfied in this instance. Allowing PJM to reinterpret its Tariff provisions, absent notice to the marketplace, and then retroactively re-billing the Companies would undermine the twin goals of predictability and equity that form the bedrock of the filed rate doctrine and rule against retroactive ratemaking. The Commission should prohibit PJM from reinterpreting existing tariff provisions and applying the new interpretation retroactively.

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<sup>129</sup> *Con Edison v. FERC*, 347 F.3d at 969 (citations omitted, emphasis added).



**2. PJM Has No Authority To Retroactively Reject The Companies' IBT eSchedules.**

Each and every eSchedule submitted by the Companies was accepted by PJM. Section 1.7.10(a)(i) requires the Companies to schedule and coordinate their IBTs with PJM using eSchedules and the Enhanced Energy Scheduler tools. To retroactively impose Deviation charges, PJM would first have to retroactively reject the IBT eSchedules it previously accepted and invoiced. PJM has no Tariff authority to do so under the circumstances applicable here.

Section 1.7.10(a)(v) places tight restrictions on when PJM may reject or terminate an IBT eSchedule.

Upon any default in obligations to the LLC or PJM Settlement by a Market Participant, the Office of the Interconnection shall (i) not accept any new eSchedules or Enhanced Energy Scheduler reporting by the Market Participant and (ii) terminate all of the Market Participant's eSchedules and Enhanced Energy Schedules associated with its bilateral contracts previously reported to the Office of the Interconnection for all days where delivery has not yet occurred. All claims regarding a buyer's default to a seller under a bilateral contract shall be resolved solely between the buyer and the seller. In such circumstances, the seller may instruct the Office of the Interconnection to terminate all of the eSchedules and Enhanced Energy Schedules associated with bilateral contracts between buyer and seller previously reported to the Office of the Interconnection.

PJM has limited authority to reject IBT eSchedules. Section 1.7.10(a)(v) empowers PJM to stop accepting eSchedules from market participants that default on payment obligations for Spot Market Back-up purchases. This remedy is forwarding looking - - to future eSchedules - - it does not apply to eSchedules already accepted.

PJM has limited authority to terminate IBT eSchedules. Section 1.7.10(a)(v) empowers PJM to terminate eSchedules associated with an IBT where the energy has not yet been delivered. This remedy applies only where the energy has not been delivered.

PJM's limited authority in Section 1.7.10(a)(v) does not apply to the Companies' eSchedules. The Companies ceased their IBTs in July 2011 - - there is no future eSchedule for PJM to "stop accepting." To the contrary, PJM proposes retroactive rejection. And, PJM has not alleged that the Companies failed to cover any Spot Market Back-up purchases. PJM accepted the Companies' eSchedules and issued IBT-related invoices (none of which included Deviation charges for the IBT-balanced virtual transactions), and the Companies timely paid all amounts due. Absent a default, PJM has no authority under the Tariff to reject a current eSchedule, much less an eSchedule accepted months and in many cases, years earlier. Likewise, PJM has no authority under the Tariff to terminate eSchedules where the energy had already been delivered. The Companies' last IBT eSchedule occurred in July 2011. All deliveries of energy are long since completed.

**C. Unless Applied to All Market Participants Engaged in IBTs, PJM's Proposal Runs the Risk of Being Unduly Discriminatory**

The PJM Proposal is being conducted under potentially unduly discriminatory circumstances. Many market participants engage in similarly structured IBTs for the same or similar reasons as the Companies, yet PJM has not affirmatively demonstrated why the Companies' IBTs should be treated differently from the IBTs of other market participants.

**1. The Federal Power Act Prohibits Undue Discrimination.**

The Federal Power Act prohibits undue discrimination.<sup>130</sup> Discrimination is "undue" when there is a difference of rates, terms or conditions among similarly-situated customers that is not justified by some legitimate factor.<sup>131</sup> According to the Commission:

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<sup>130</sup> 16 U.S.C. § 824d(b).

<sup>131</sup> See, e.g., *California Indep. Sys. Operator Corp.*, 119 FERC ¶ 61,061, at P 69 (2007) ("The Commission has determined that discrimination is undue when there is a difference in rates or services among similarly situated customers that is not justified by some legitimate factor") (citations omitted). See also *St. Michaels Utils. Comm'n v. FPC*, 377 F.2d 912, 914 (4th Cir. 1967) ("where there exists a difference in rates which is attacked as illegally

[u]ndue discrimination is in essence an unjustified difference in treatment of similarly situated customers. The complainant alleging that existing rate schedules unduly discriminate against a customer bears the burden of persuading us that the rate schedules do so. And the complainant must always do so; the burden of persuasion never shifts. The complainant also bears the initial burden of producing evidence to substantiate its allegation. The complainant satisfies this burden by coming forward with evidence showing that the customers are similarly situated and that they are being treated differently.<sup>132</sup>

PJM cannot justify disparities merely by showing that differences in circumstances exist; it must affirmatively demonstrate how these differences justify the disparities.<sup>133</sup>

## 2. PJM Has Not Justified Its Disparate Treatment.

PJM has not affirmatively demonstrated why the Companies' IBTs should be treated differently from the IBTs of other market participants' IBTs. The Companies understand that PJM's new interpretation of "physical transfer of energy" considers some bilateral transactions to be inappropriate transactions dependent on which market participants are using them, while others are deemed to be appropriate. Such IBTs, however, are functionally equivalent and do not appear to be different in any substantive respect. As explained above, such interpretation is inconsistent with the plain language of the Tariff.

There is no difference that would justify disparate treatment. Despite evidence that numerous parties routinely engage in IBTs of a wide variety, including: (i) IBTs that are used as offsets or to balance real-time Deviations, including those arising from virtual transactions, (ii)

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discriminatory, judicial inquiry devolves on the question of whether the record exhibits factual differences to justify classifications among customers and differences among the rates charged them"); *Complex Consol. Edison Co. of New York, Inc. v. FERC*, 165 F.3d 992, 1012 (D.C. Cir. 1999) citing *Tennessee Gas*, 860 F.3d at 452 n.9, *City of Vernon v. FERC*, 845 F.2d 1042, 1046-47 (D.C. Cir. 1988); *Consol. Edison Co. v. FERC*, 676 F.2d 763, 773 & n.31 (D.C. Cir. 1982).

<sup>132</sup> *Transwestern Pipeline Co.*, 36 FERC ¶ 61,175, at 61,433 (1986) (citation omitted).

<sup>133</sup> See *Public Service Co. of Indiana v. FPC*, 575 F.2d 1204, 1212 (7th Cir. 1978) ("[t]he FPC in its opinion must show not only that factual differences justify some rate differences, but also that the factual differences justify the specific rate differences permitted"); *Mississippi Industries v. FERC*, 822 F.2d 1104, 1105 (D.C. Cir. 1987) (remanding case to the Commission "for an explanation of the criteria used to determine what constitutes 'undue discrimination' and of why the Commission's ultimate decision is not unduly discriminatory").

IBTs that are settled in the day-ahead market as well as the real-time market, (iii) IBTs that are transacted at hubs where there are no generators or load, and (iv) IBTs that are transacted by non-load serving entities or non-generation entities such as those acting as Purchase and Sale Entities (PSE) or power marketers, PJM appears to have determined that there is a distinction; however, that distinction is not stated in the Tariff nor explained to the Companies. As a result, the Companies are not certain how they could enter into IBTs in the future, under any circumstance.

As Dr. McNamara explains, many PJM market participants routinely use IBTs in conjunction with virtual transactions to minimize Deviation charges.<sup>134</sup> Market participants also routinely use IBTs as one part of their greater portfolio and do not use IBTs only in the limited way that it appears that PJM believes that “physical” market participants do. The Companies’ IBTs are the functional equivalent of IBTs conducted by other market participants.<sup>135</sup> As discussed in Section III.A.4 above, the Companies’ IBTs are functionally identical to the two examples that PJM holds out as fully compliant with the Tariff - - the PJM Example IBT and the Western Hub example. There is no difference.

PJM may not selectively implement its Tariff without justifying its disparate treatment. PJM has not identified the specific criteria it would use to evaluate IBT transactions and has proposed no systematic methodology to ensure compliance to its implied interpretation of Tariff requirements.

**D. PJM’s Proposal Will Place Energy Markets at Risk and Raise The Specter of Default Risk.**

Until all market participants understand PJM’s new Tariff interpretation on both a retroactive and prospective basis and how that Tariff interpretation works in light of market

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<sup>134</sup> McNamara Affidavit at P 28.

<sup>135</sup> *Id.* at 28.

realities, the Companies expect a significant reduction in virtual transactions and IBTs in PJM, as well as credit exposure issues as additional transaction activity conducted by all participants (including market participants that own generation, serve load and/or market wholesale power) falls under the same definition issue identified by PJM as non-compliant and are made subject to retroactive unwinding of transactions and re-billing of Deviation charges.

Based on DC Energy's analysis of EQR data, in just Q2 2011, 473 PJM market participants traded over 116,000 GWh in internal physical bilateral arrangements.<sup>136</sup> Additionally, 75% of all virtual transactions within PJM offset, suggesting widespread use of IBTs within PJM.<sup>137</sup> Hub transactions are common. Without a clear, filed explanation of the characteristics of transactions that qualify for IBT treatment, a substantial amount of market activity will be subject to uncertainty, both retroactively and prospectively until a Tariff amendment become effective. This market uncertainty can be avoided, if the Commission affirms the Companies' interpretation of the contemplate physical transfer clause. Bilateral transactions under the ISDA Power Annex or the EEI Master for the delivery of energy combined with eSchedules satisfy the physical transfer requirement under the current tariff.<sup>138</sup> If PJM has a compelling reason to change this historically acceptable practice, then it should be required to amend the Tariff with notice and on a prospective basis only.

To rule otherwise, will embroil the PJM market in significant uncertainty.<sup>139</sup> Market participants need to know that they will not be subject to retroactive resettlements and re-billing based on ill-defined or non-existent standards. A process that would allow an RTO to file a tariff change, accept transactions under that tariff for two years, then offer a new contradictory

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<sup>136</sup> Stevens Affidavit at P 59.

<sup>137</sup> *Id.* at P 60

<sup>138</sup> *Id.*

<sup>139</sup> Massey Affidavit at P 27.

interpretation and apply it retroactively to impose charges that greatly exceed the market participant's revenues on those transactions is a recipe for uncertainty and financial risk. These translate into less robust markets with higher risk premiums influencing prices consumers must pay.

The Commission should reject the PJM Proposal and clarify that IBTs, like the Companies', contemplate the physical transfer of energy. If the Commission were to accept the PJM Proposal, it should require absolute clarity on the permissibility, use and subsequent retroactive re-billing risk for all market IBT activity, and a clear demonstration by PJM that this clarity existed throughout the Retroactive Period. Without such clarity, the Commission may find that it cannot ensure that PJM's unarticulated working definition creates a just and reasonable outcome for all market activity conducted with IBT transactions both in the Retroactive Period and for prospective activity conducted by all participants from the date of this Complaint until the standards are clearly articulated.

**E. If The Commission Agrees With PJM's Tariff Interpretation Effective on a Retroactive Basis and Concludes That PJM Has the Requisite Authority to Retroactively Unwind the IBTs and Re-Bill the IBT-Balanced Deviation Charges, Then the Companies Request Waiver Of The Unwinding Of the IBTs and Retroactive Re-Billing.**

To the extent the Commission concludes that the Companies' IBTs during the Retroactive Period were no longer consistent with the Tariff, the Companies respectfully request that the Commission direct PJM to waive the retroactive re-bills of Deviation charges by waiving the application of Sections 7.1 7.1A, 7.3 and 10.4 of the Tariff and Sections 14B.1, 14B.2, 15.1, 15.2 and 15.6 of the Operating Agreement, and any other Tariff and/or Operating Agreement provisions necessary to grant the requested relief.

The Commission regularly grants waivers, and does so where: (1) an underlying error was made in good faith; (2) the waiver was of limited scope; (3) a concrete problem needed to be

remedied; and (4) the waiver did not have undesirable consequences, such as harming third parties.<sup>140</sup> The Companies satisfy each of these criteria. Moreover, and as further described in the attached affidavit of former Commissioner Massey, the proposed retroactive unwinding of the Companies' IBTs and associated re-billing would be "unsound public policy and contrary to Commission and federal judicial precedents."<sup>141</sup> Accordingly, it would be appropriate to waive any retroactive re-billing and resettlement that the Commission might otherwise require.

**1. The Companies Acted In Good Faith by Reasonably Relying Upon Communications With PJM, Guidance and Training Materials Provided By PJM, And Over Five Years Of Consistent Transaction Schedules, Accepted eSchedules and Consistent Invoicing By PJM.**

**(i) Training Materials**

Since at least 2005 and after 2008 (when the 2008 Credit Risk Filing was made), PJM's website has contained numerous guides and instructive material that demonstrate that the use of IBTs with virtual transactions is authorized under the Tariff. These materials include IBT presentations at stakeholder and working group meetings, training materials, including the IBT and eSchedules training video that is still currently available for download from the "Training" section of the PJM website, and PJM manuals. The Companies have reasonably relied on this information, which demonstrated that they were entitled to eSchedule IBTs during the Retroactive Period.

PJM's materials present IBT examples in which the parties to the transactions are neither load serving entities nor Generation Owners. These materials provide examples and diagrams

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<sup>140</sup> See, e.g., *PJM Interconnection, L.L.C.*, 135 FERC ¶ 61,069, at P 8 (2011) ("*PJM*"); *ISO New England Inc.*, 134 FERC ¶ 61,182, at P 8 (2011) ("*ISO-NE*"); *California Indep. Sys. Operator, Inc.*, 132 FERC ¶ 61,004, at P 10 (2010) ("*CAISO*"); *Hudson Transmission Partners, LLC*, 131 FERC ¶ 61,157, at P 10 (2010) ("*HTP*"); *Pittsfield Generating Co., L.P.*, 130 FERC ¶ 61,182, at P 9-10 (2010) ("*Pittsfield*"); *ISO New England Inc. - EnerNOC*, 122 FERC ¶ 61,297 (2008) ("*EnerNOC*"); *Central Vermont Public Service Corp.*, 121 FERC ¶ 61,225 (2007) ("*Central Vermont*"); *Waterbury Generation LLC*, 120 FERC ¶ 61,007 (2007) ("*Waterbury*"); *Acushnet Co.*, 122 FERC ¶ 61,045 (2008) ("*Acushnet*").

<sup>141</sup> Massey Affidavit at P 8.

showing IBTs entered into in conjunction with virtual transactions. Specifically, a document entitled “Clarification of Internal Bilateral Transactions” provided to the CRMSC includes an example IBT transaction between a non-Generator seller and non-load serving entity buyer that takes place at the Western Hub.<sup>142</sup> In the eSchedules training video, the PJM trainer presents the “Internal Transactions: eSchedules” document and explains that IBTs are considered both financial and physical transactions. While the PJM trainers meaning with respect to “financial” and “physical” is unclear – especially with respect to the Tariff language specifying a physical transfer, the example illustrates that there is significant ambiguity. There are several potential interpretations of “financial” in the PJM training context. One interpretation would be the use of an IBT for the sole purpose of effecting a balancing of financial exposure to or from PJM. Market participants with a large expected positive cash settlement from PJM (e.g., a generation owner or operator) can engage with another market participant with large expected negative cash settlement to PJM (e.g., a load serving entity) and can engage in any IBT for the sole purpose of balancing the expected financial exposures to or from PJM. Another interpretation would be the use of the IBT as a means to provide energy transfers to balance a portfolio that is comprised mostly of day-ahead energy purchases or sales. In either context, an IBT could have a “financial” character and a “physical” character. The “financial” character would stem from the balancing of financial cash flows. The “physical” character would stem from a management of imbalances and exposure to the physical interchange market. This material illustrates that the interpretation inherent in the PJM Proposal is not consistent with its training material, has an ambiguous character and is not sufficiently precise for determining the appropriateness of an IBT transaction.

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<sup>142</sup> See Attachment H (Western Hub example) and explanation *supra* section III.A.4.



The *eSchedules User Guide*, the current instruction manual for using PJM's IBT reporting system, supports a broad definition of IBTs. PJM presented a document to the December 20, 2005 Reserve Market Working Group entitled "Balancing Operating Reserves Examples" that specifically describes IBTs as a method to avoid Deviation (or balancing operating reserve) charges associated with the transfer of energy via virtual transactions.<sup>143</sup> Finally, the PJM manuals fail to specify any requirements that IBTs be exclusively transacted between Generation Owners and load serving entities.

In summary, these guidance materials authored by PJM show that the character of expected transfers of energy in IBTs has been ambiguous, potentially inconsistent, but nonetheless determinative that these transactions can be entered into by any PJM market participant, whether a generation owner, load serving entity or power marketer. Much of that training material remains on PJM's website today. The Companies reasonably relied on these materials and the determination that IBTs can be entered into by any PJM market participant. As explained by former Commissioner Massey, "[a] transparent, ordered and consistent market requires that participants must be able to rely on the Tariff and, where there may be some ambiguity, other PJM materials to guide their behavior."<sup>144</sup>

**(ii) Communications and Conversations With PJM's Market Monitor, Including a Letter Describing in Detail the Transactions the Companies Intended to Pursue.**

In 2006, before engaging in their first IBT, the Companies had several conversations and face-to-face meetings with PJM representatives and its then-in-house market monitor, Dr. Bowering. These conversations are described in detail in section II *supra*.

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<sup>143</sup> See Attachment E.

<sup>144</sup> Massey Affidavit at P 14.

On April 4, 2006, following those communications, the Companies sent PJM a detailed letter describing its understanding that the IBTs were fully compliant and requesting that PJM identify any comments or concerns.<sup>145</sup> In a direct and transparent manner, the Companies explained that:

- DC Energy's new affiliate, DCE Mid-Atlantic, planned to enter into IBTs with DC Energy.
- They would use the IBT to transfer average real-time power-price risk to DC Energy to allow it to focus on the "local" congestion issues and develop the internal bilateral market without being distracted by a significant real-time power price position.
- They would use the IBT to offset expected Deviations in the Real-Time market.
- They believed, based on conversations with PJM staff and training provided by PJM staff on December 20, 2005 at the Reserve Market Working Group, that the Transactions were Tariff-compliant and would have a beneficial, pro-efficiency effect on the functioning of the PJM markets by driving greater convergence in day-ahead market and real-time market prices.

The letter ended with DC Energy inviting any questions or concerns that PJM might have regarding DC Energy's proposed IBTs. PJM identified none.

The Companies had no reason to suspect that there was any question about their IBTs until contacted by PJM staff, the same staff they had communicated with and issued the letter to, in July 2011.

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<sup>145</sup> See *supra* Section II describing the information in the letter and Attachment G that contains the letter.

**(iii) The Commission Has a Policy Against Retroactive Re-Billing Where Market Participants Have Reasonably Relied On RTO Representations.**

Commissioner Massey explains in his affidavit that market participants are entitled to rely on an ISO/RTO's materials interpreting its tariff.<sup>146</sup> The Commission has consistently refused to require retroactive billing - even where a tariff violation occurred (a point with which the Companies do not agree) - when a market participant relied on an ISO/RTO's interpretation of its tariff. In a case involving the Midwest Independent Transmission System Operator, Inc.'s ("MISO") revenue sufficiency guarantee ("RSG") charges, the Commission reversed its decision to require the MISO to make refunds to market participants for its incorrect application of the RSG provisions of its tariff.<sup>147</sup> Citing to a D.C. Circuit proceeding, the Commission explained in *MISO* that "a refund is not appropriate if the end result of a tariff violation is not 'unjust, unreasonable, or unduly discriminatory,'" and noted that the D.C. Circuit previously upheld Commission "discretion not to order refunds for a tariff violation in a case in which 'the Commission thought it inequitable to order a refund when the predicate tariff violation had conferred benefits on the system.'" <sup>148</sup>

In *MISO*, the RTO submitted a filing pursuant to Federal Power Act section 205 to amend its tariff to remove reference to virtual supply offers from the RSG provisions of its tariff and to clarify that such transactions would not be included in calculating RSG charges. MISO also explained that, since its energy markets opened, it had not considered virtual supply offers in the RSG charge calculation, even though it was contemplated by the tariff. MISO noted in its filing that its Business Practices Manuals and training materials stated that virtual supply offers would not be included in RSG charge calculation. In the order granting rehearing and declining to

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<sup>146</sup> See Massey Affidavit at P 15-19.

<sup>147</sup> See *Midwest Indep. Transmission Sys. Operator, Inc.*, 117 FERC ¶ 61,113 (2006) ("*MISO*").

<sup>148</sup> *MISO* at P 94, citing *Louisiana Pub. Serv. Comm'n v. FERC*, 174 F.3d 218, 223 (D.C. Cir. 1999).

require back-billing for RSG charges, the Commission explained that “[h]ere, market participants relied upon statements made by the [MISO] in its Business Practice Manuals that virtual transactions would not be allocated RSG charges.”<sup>149</sup> The Commission stated that although Business Practices Manuals do not take precedence over the tariff, “it is unfair to market participants to assume that the interpretations made by the Midwest ISO ‘in its own publications ... cannot be regarded as coming from a credible source.’”<sup>150</sup>

The Commission similarly refused to require retroactive remedies notwithstanding a tariff violation where a market participant demonstrated that it relied on an informal New York Independent System Operator, Inc. (“NYISO”) newsletter.<sup>151</sup> There, the Commission granted limited relief to *PPL EnergyPlus, LLC* (“PPL”) in PPL’s dispute with the NYISO over the allocation of import capacity rights. The Commission agreed with PPL that NYISO had violated its tariff by not accepting bids for import capacity rights in the order of priority expressed in the ICAP manual. The Commission agreed with the interpretation of the tariff asserted by PPL, and as supported by the NYISO’s own newsletter, the NYISO Insider. The Commission concluded that it is reasonable for market participants to rely on secondary source materials, such as newsletters and other informational documents published by the NYISO for market participants. The Commission noted its view that such materials consist of credible tariff interpretations by the NYISO and that the NYISO has a responsibility to make sure that these documents are consistent with the tariff and procedures. The Commission stated “it is reasonable for PPL to rely on NYISO’s own statements, submitted in a newsletter that it publishes, as to the NYISO’s own interpretation of how section 4.9.2 operates. It is unfair to market participants to assume that interpretations made by NYISO in its own publications regarding the ICAP Manual, and

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<sup>149</sup> *Id.* at P 94.

<sup>150</sup> *Id.*

<sup>151</sup> See *PPL EnergyPlus, LLC v. New York Indep. Sys. Operator, Inc.*, 115 FERC ¶ 61,383 (2006) (“*PPL Energy*”).

highlighting topics such as priority and bid evaluation, cannot be regarded as coming from a credible source.”<sup>152</sup>

The Commission is reluctant to enforce a tariff retroactively - even in the presence of a tariff violation - where a market participant can demonstrate that it relied upon an ISO/RTO’s interpretation of its own tariff. Here, the Companies relied on PJM’s stakeholder meeting material that did not prohibit the use of IBTs and virtual transactions. In the interest of ensuring full compliance, DC Energy explained the structure of its IBTs to PJM in 2006, on the phone, face-to-face and in a follow-up letter, and has been structuring its IBTs consistent with that explanation since then. Notwithstanding PJM’s 2008 “clarification” to the Tariff, PJM knew that the Companies, active and significant market participants that own no generation and serve no load, used IBTs regularly and never objected or sought to assess Deviation charges on the IBT-balanced virtual transactions until July 2011. To the contrary, PJM routinely invoiced and the Companies routinely paid all charges assessed, which did not include the Deviation charges. It would be unfair to require the Companies to assume that PJM’s own presentations, training materials and manuals, in addition to PJM’s continued acceptance of the Companies’ IBTs, may not be relied upon to support its conclusion that their IBTs were permitted. Indeed, as stated by Commissioner Massey, “[t]he most significant and damaging policy impact of allowing PJM to re-bill the Transactions at issue is the signal that, when the Tariff is subject to more than one reasonable interpretation, market participants cannot rely on PJM’s materials providing guidance on the Tariff.”<sup>153</sup>

The Commission has also declined to retroactively re-bill market participants as a result of a tariff violation where the market participant cannot revisit their past economic decisions or

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<sup>152</sup> *Id.* at P 29.

<sup>153</sup> Massey Affidavit at P 14.

retroactively alter their conduct. In *MISO*, as further support for its decision to not retroactively assess RSG charges on virtual transactions, the Commission explained that market participants “engaged in virtual transactions with the reasonable expectation that virtual transactions would not be allocated RSG charges,” and that, accordingly, “there is nothing ... to suggest that the avoidance of RSG charges by the [MISO] market participants resulted in an inequitable windfall for them or for the [MISO].”<sup>154</sup> The Commission also concluded that if it were to order refunds, “thus potentially rendering previous virtual transactions back to April 2005 uneconomic, [it] would also be an unfair and inequitable remedy, because market participants cannot revisit economic decisions....”<sup>155</sup>

Here, the Companies engaged in IBTs with the reasonable expectation that their IBT-balanced virtual transactions would not be subject to Deviation charges. It would similarly be unfair and inequitable to retroactively subject the Companies to retroactive Deviation charges, since the Companies cannot revisit their economic decisions or alter their conduct. As Dr. Stevens explains, the Companies would not have engaged in the IBT-balanced virtual transactions or would have structured them differently if PJM had placed them on notice at any time that the IBTs were not permitted or that the Transactions were subject to Deviation charges.<sup>156</sup>

Not only will the Companies substantially be harmed by such a result, “allowing PJM to retrospectively re-bill the [Companies] would create substantial uncertainty and undermine faith in markets.”<sup>157</sup> As Commissioner Massey explains, “such retrospective re-billing would have a broader chilling effect on market activities generally,” the net effect of which “would be the

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<sup>154</sup> *MISO* at P 94.

<sup>155</sup> *Id.* at P 95.

<sup>156</sup> Stevens Affidavit at P 16, 29-30.

<sup>157</sup> Massey Affidavit at P 27.

large-scale introduction of uncertainty among the participants in the day-ahead and real-time markets, the chilling of innovation in financial transactions and the consequent erosion of market confidence.”<sup>158</sup> Further, the market will still have derived the benefits of the Companies’ IBT-balanced virtual transactions that brought convergence and more accurate commitment and dispatch. Retroactive application of Deviation charges would not be equitable; rather “[t]hese systemic benefits of the Transactions make them particularly unsuitable targets for retrospective re-billing.”<sup>159</sup>

As set forth in former Commissioner Massey’s affidavit, additional factors weigh in favor of declining to allow PJM to retroactively re-bill the Companies: (i) the transactions furthered the Commission’s price convergence policy objective;<sup>160</sup> (ii) no other market participant was harmed by the Transactions and, indeed, the market benefited as a result of the Companies’ Transactions;<sup>161</sup> and (iii) re-billing would be discriminatory against the Companies.

In summary, retroactive re-billing Deviation charges should be waived. The Companies relied to their detriment on PJM’s guidance, statements and consistent Tariff interpretation that the IBTs were authorized under the Tariff. They would not have engaged in almost all of the IBT-balanced virtual transactions if PJM had indicated at any time that the IBTs were not permitted. The Companies cannot revisit these economic decisions, nor can they retroactively alter their conduct. Retroactively unwinding of the Companies’ IBTs and the resulting re-billing would undo their economic decisions and would necessarily be inaccurate.

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<sup>158</sup> Massey Affidavit at P 27.

<sup>159</sup> *Id.* at P 30.

<sup>160</sup> *See also* Stevens Affidavit at P 5-7, 11-15 .

<sup>161</sup> *See also id.*

## 2. Waiver Will Resolve A Concrete Problem.

Waiver will remedy a concrete problem - - how the IBT requirements are to be interpreted as to transactions that have occurred since the beginning of 2009. If PJM is required to retroactively unwind the Companies' IBTs, then it also must be required to expand its evaluation even farther to all market participants. PJM recognizes that the definition of "physical" transactions is subject to multiple interpretations. Granting waiver could resolve this issue now.<sup>162</sup>

PJM is already proceeding with a stakeholder process to add clarity and potentially terminate the use of IBTs by anyone as a mechanism to minimize Deviation charges on a prospective basis.<sup>163</sup> While the aforementioned stakeholder process will resolve ambiguity prospectively, any retroactive application must be addressed through this Complaint. As a general matter, the Commission does not direct resettlements lightly.<sup>164</sup>

In addition, the retroactive application of Deviation charges to the Companies in amounts equal to many multiples of the commercial value of the net arbitrage opportunity to the

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<sup>162</sup> See e.g., *PJM* at P 11 (finding that granting waiver of the application of the Operating Agreement's default provisions to a company whose default arose from the billing error would remedy a concrete problem because otherwise, PJM would be required to declare the company in default leaving it without the corresponding ability to re-pay those obligations through participating in PJM's markets); *ISO-NE* at P 11 (finding that waiver of a tariff requirement by which ISO-NE would have to file an amendment to its tariff as a result of an over-collection would solve a concrete problem because otherwise ISO-NE would be required to amend its tariff to return money to participants, which would require restating rates, creating a massive resettlement, and creating separate rates for a single month); *CAISO* at P 11 (finding that waiver of certain tariff provisions to correct a data entry error would "remedy the problem of unnecessarily imposing large financial obligations on [the affected parties], including an obligation to post the associated financial security, which would greatly exceed their typical payment obligations, and might possibly result in a non-payment default scenario"); *HTP* at P 14 (finding that waiving a developer's obligation to post the full security for its project by a date certain remedied a concrete problem).

<sup>163</sup> See <http://www.pjm.com/~media/committees-groups/committees/mic/20111101/20111101-item-03b-investigation-of-bor-netting-rules-issue-charge.ashx>

<sup>164</sup> See, e.g., *Northeast Utils. Serv. Co.*, 135 FERC ¶ 61,123, at P 12 (2011) (explaining that re-running of market settlements is "something the Commission has been reticent to require") citing *Maryland Pub. Serv. Comm'n. v. PJM Interconnection, L.L.C.*, 123 FERC ¶ 61,169, at P 49 (2008), *Mirant Energy Trading, LLC v. PJM Interconnection, L.L.C.*, 122 FERC ¶ 61,007 (2008); *Bangor Hydro-Electric Co. v. ISO New England Inc.*, 87 FERC ¶ 61,339 (2001) (finding that re-running markets even where an error was made would do more harm to electric markets than is justifiable); *California Indep. Sys. Operator, Inc.*, 120 FERC ¶ 61,271, at P 25 (2007) (identifying market reruns as the exception, not the rule).



Companies constitutes an unfair transfer of value (*e.g.*, a windfall) from the Companies to other market participants who already previously benefited in the aggregate from the increased convergence the Companies' activity created. Granting a waiver resolves this equity issue.

Finally, if the Commission does not grant waiver, the Companies will suffer irreparable harm. For instance, as Dr. Stevens explains:

[T]he retroactive elimination or unwinding of the IBTs between DC Energy and DCE Mid-Atlantic would cause two major issues. First, it would necessitate a resettlement of the physical energy transfers that have already been delivered and paid for between DC Energy and DCE Mid-Atlantic, as well as between DC Energy and PJM and DCE Mid-Atlantic and PJM. Any resettlement would create a large cash flow event related to the unwinding of the previously settled transfers. Second, the retroactive unwinding of the IBTs also would impose retroactive deviation charges on both DC Energy and DCE Mid-Atlantic related to the load and supply deviations each held in the PJM RT interchange market related to the associated day-ahead purchases (DECs) and sales (INCs). Such retroactive re-billing would impose a large and unexpected cost associated with the convergence activities of DC Energy and DCE Mid-Atlantic.<sup>165</sup>

Dr. Stevens further explains that if the Commission accepts PJM's re-billing proposal, the associated combined liabilities are expected to be in the tens of millions of dollars shared between DC Energy and DCE Mid-Atlantic, and that "[s]uch large unexpected liabilities would be significant to any market participant, even a large utility, and would significantly reduce any market participant's capital."<sup>166</sup> As a result, DC Energy and DCE Mid-Atlantic's planned participation in the hedging and trading markets, would be necessarily contracted.<sup>167</sup> In addition to curtailing future activities, DCE Mid-Atlantic, one of the largest buyers and sellers of FTRs in the PJM FTR market, might have to liquidate some existing positions. Dr. Stevens also explains

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<sup>165</sup> Stevens Affidavit at P 26.

<sup>166</sup> *Id.* at P 28.

<sup>167</sup> *Id.*

that DCE Mid-Atlantic is a key counterparty to DC Energy in conjunction to the latter's bilateral market activity and that "liquidation of DCE Mid-Atlantic's portfolio (whether in part or in full) would have significant impact on the ability for DC Energy to continue to provide liquidity in the PJM wholesale market."<sup>168</sup>

### 3. The Waiver is of Limited Scope

The Companies' waiver request is for a limited scope: the Retroactive Period and their own Transactions.<sup>169</sup> Each Transaction has long ended and, out of caution, the Companies have avoided any further IBTs.<sup>170</sup> The waiver applies to the finite period over which PJM proposes to retroactively unwind the specific IBTs, to resettle the related energy, and to issue retroactive re-bills; that is July 2009 through July 2011.

### 4. No Harm to Third Parties.

The waiver will not harm third parties.<sup>171</sup> As Dr. Stevens explains, the Companies' Transactions have provided multiple benefits to the marketplace. First, they have reduced overall

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<sup>168</sup> *Id.*

<sup>169</sup> *See e.g., PJM* at P 10 (finding that a requested waiver was of limited scope where the waiver would exempt a company from the default provision of PJM's Operating Agreement and would end when the company remedied its default arising from a billing error); *ISO-NE* at P 10 (finding that a requested waiver was of limited scope where it was a one-time waiver of one provision of the tariff affecting no other provision of the tariff); *CAISO* at P 11 (finding a requested waiver was limited in scope where it applied only to a few parties); *HTP* at P 14 (finding that a requested waiver was "limited in scope").

<sup>170</sup> *See e.g., PJM* at P 10 (finding that a requested waiver was of limited scope where the waiver would exempt a company from the default provision of PJM's Operating Agreement and would end when the company remedied its default arising from a billing error); *ISO-NE* at P 10 (finding that a requested waiver was of limited scope where it was a one-time waiver of one provision of the tariff affecting no other provision of the tariff); *CAISO* at P 11 (finding a requested waiver was limited in scope where it applied only to a few parties); *HTP* at P 14 (finding that a requested waiver was "limited in scope").

<sup>171</sup> *See e.g., PJM* at P 12 (finding that waiver of the application of the Operating Agreement's default provisions to a company whose default arose from a billing error would have no undesirable consequence, and would "not adversely affect any third parties and should avert the potential default risk to PJM members that could result if waiver was not granted"); *ISO-NE* at P 12 (finding that waiver of a tariff requirement by which ISO-NE would have to file an amendment to its tariff as a result of an over-collection would not harm third parties because "participants will be refunded the amount of the over collection through [a] true-up mechanism over the next two years"); *CAISO* at P 11 (finding that waiver of certain tariff provisions to correct a data entry error "will have no adverse impacts on third parties"); *HTP* at P 12 (finding that parties worked in a good faith effort to satisfy their respective obligations under an interconnection agreement and an interconnection construction agreement and that waiver of the developer's obligation to post the full security for its project by a date certain was appropriate).

operating reserves that PJM was required to commit and dispatch. In other words, the Companies' Transactions actually **reduced** the costs paid by all market participants. As Dr. Stevens explains, "from a cost causation perspective, since DC Energy/DCE Mid-Atlantic's virtual transactions converged flows and prices in locations where they were otherwise diverged, DC Energy/DCE Mid-Atlantic's transactions acted to ensure that DA supply was better matched to RT supply and DA demand was better matched to RT demand at individual locations throughout the PJM system. This reduced the need for balancing market re-dispatch and hence reduced the overall level of balancing operating reserve credits."<sup>172</sup> As Dr. Stevens explains, had the Companies been notified that their IBT-balanced virtual transactions would have been subject to Deviation charges, they would not have engaged in these Transactions and the Deviation charges would have increased.<sup>173</sup>

Second, the transactions improved market convergence. In his affidavit, Dr. Stevens provides an actual example of the improved convergence associated with the Transactions. The Companies' transactions which restored the transfer of energy reduced the day-ahead premium. By converging the day-ahead and real-time prices, the Companies contributed to producing a more efficient day-ahead commitment that lowered day-ahead prices. Reducing operating reserve costs and driving greater market convergence are both benefits that the market participants have already received.

Although PJM has determined that the Companies' IBTs are not "acceptable," even though the Companies' Transactions do cause a more accurate day-ahead market, decrease operating reserve costs and result in price convergence, PJM also appears to have determined

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<sup>172</sup> Stevens Affidavit at P 21.

<sup>173</sup> *Id.* at P 29-30.

that the ABC-XYZ example discussed in the Stevens Affidavit<sup>174</sup> is “acceptable,” even though such transactions would tend to cause divergence, a less accurate day-ahead market, and higher real-time operating reserves costs. It would be a perverse Tariff interpretation to benefit the latter form of IBTs while economically penalizing Transactions that are structurally identical but provide the pro-efficiency antidote to the ABC-XYZ example.

Not granting the waiver may cause upheaval in the market. The Companies and others that are re-billed may liquidate positions in the energy and FTR markets, which would likely result in market inefficiencies. Based on the foregoing, the Companies satisfy the criteria the Commission applies in deciding whether to grant a waiver.

**V. IF THE COMMISSION DECIDES THAT PJM’S TARIFF INTERPRETATION SHOULD BE APPLIED RETROACTIVELY, COMPANIES REQUEST A HEARING AND SETTLEMENT JUDGE PROCEDURES TO DETERMINE WHETHER AN EXPEDIENT RESOLUTION IS POSSIBLE.**

In the event that the Commission determines that PJM’s current Tariff interpretation should be applied on a retroactive basis, the Commission should set this case for hearing, hold the hearing in abeyance and direct this case for settlement judge procedures to determine if an expedient resolution of this case is feasible. Among other issues that should be considered as part of any settlement discussions and/or at hearing is how to structure a just and reasonable remedy or payment, particularly given that the Companies would not have entered into the vast majority of the IBT-balanced virtual transactions if they had known the IBTs would have been rejected by PJM or had PJM billed the Companies for Deviation charges at the time of the Transactions. The complexity of any appropriate remedy other than the Commission either waiving any retroactive application or finding that the Companies were not in violation of the Tariff demonstrates the difficulty and uncertainty caused by a Tariff interpretation by an

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<sup>174</sup> Stevens Affidavit at P 64.

RTO/ISO that is not known to the ISO/RTO's market participants and is applied on a retroactive basis.

**VI. IF THE COMMISSION DECIDES THAT PJM'S PROPOSAL SHOULD PROCEED AS AGAINST THE COMPANIES AND NOT TO GRANT WAIVER, THE COMPANIES REQUEST THAT THE COMMISSION DIRECT PJM TO CONDUCT A PJM-WIDE INVESTIGATION TO IDENTIFY ALL NON-COMPLIANT IBTS.**

If the Commission decides that PJM's Proposal should proceed, the Companies respectfully request that the Commission institute a PJM-wide investigation to ensure that PJM's application of its new interpretation of the Tariff its retroactive re-billing and unwinding of transactions is applied to all market participants engaged in IBTs, including generation owners, power marketers, and load serving entities, in a not unduly discriminatory manner.

The Commission should require that PJM (i) specifically identify the criteria that define acceptable IBTs; (ii) examine and apply those criteria to every IBT entered into by a generation owner, load serving entity or power marketer on a not unduly discriminatory or preferential basis; (iii) retroactively re-bill those market participants for every non-compliant IBT, and (iv) identify pursuant to the Tariff how and to which market participants the collected revenue will be allocated.

Before conducting these calculations, PJM must investigate every market participant that engaged in virtual transactions and IBTs, identify whether those market participants fully complied with PJM's new interpretation, and then calculate the appropriate numerator and denominator to develop an accurate Deviation charge. The Companies understand that PJM currently has no procedures or software in place to monitor IBTs and does not review IBTs against generation sales, load purchases or virtual transaction volumes.

## VII. COMMUNICATIONS

The names, addresses, telephone and fax numbers, and e-mail addresses of each person designated to receive service of documents on behalf of DC Energy are as follows:

Joelle K. Ogg, Esq.  
General Counsel  
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## VIII. REMAINING RULE 206 REQUIREMENTS

### A. Statement Concerning Attempts At Alternative Dispute Resolution (Rule 206(b)(9))

In accordance with Rule 206(b)(9),<sup>175</sup> the Companies summarize here their attempts to resolve PJM's retroactive unwinding and re-billing proposal prior to filing the Complaint. The Companies did not use the Commission's Hotline or Dispute resolution Services. The Companies and PJM did work cooperatively over several months, from July 2011 until October 2011, to resolve the disputed issues. These e-mails, conference calls, communications and face-to-face meetings are described in detail in section II *supra*. Unfortunately, these efforts were unsuccessful. In light of the significant steps taken, further dispute resolution procedures would be ineffective. The Companies respectfully request that the Commission grant this Complaint to avoid further injury to PJM's markets, consumers, and the Companies.

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<sup>175</sup> 18 C.F.R. § 385.206(b)(9) (2011).

**B. Good Faith Effort To Quantify Financial Impact (Rule 206(b)(4))**

The Companies anticipate that PJM's retroactive Deviation charge may be in the tens of millions of dollars. PJM notified the Companies in its Notification (Attachment A) that it has begun calculating the billing adjustments; therefore no reasonably accurate estimate is available at this time.

**C. The Issues Raised In This Complaint Are Not Pending Elsewhere (Rule 206(b)(6))**

The issues raised in this case, *e.g.*, whether PJM may retroactively unwind the Companies' Transactions and re-bill the Companies for Deviation charges between June 2009 and July 2011, is not pending before the Commission in any other proceeding or before any court.

**D. Service and Form of Notice (Rule 206(c) and 206(b)(10))**

The Companies are serving a copy of this filing on PJM and Dr. Joseph Bowring, PJM's IMM. A form of notice suitable for publication in the Federal Register is provided in Attachment I.

**IX. CONCLUSION**

The Companies have demonstrated that their Transactions, which include IBTs, have satisfied the "contemplate physical transfer of energy" requirement in the Tariff for over five years. The Companies recognized the ambiguity of the clause, and so made every effort to review PJM's materials, communicate with PJM and other market participants, attend PJM meetings, rely on PJM guidance and training materials, and even carefully lay-out their transactional strategy, business design and understanding of the Tariff in a letter to PJM staff to ensure they were in compliance before commencing their first Transaction.

The Companies respectfully request that the Commission issue an order directing PJM not to implement the PJM Proposal and, to the extent the Companies have already been billed, refund those payments with interest. In the alternative, the Companies seek waiver of the re-billing requirement. Only if the Commission were not to rule summarily that the Transactions satisfied the IBT requirements or that waiver is appropriate, then the Companies request a hearing on all of the issues in this case to be held in abeyance pending proceedings before a settlement judge to determine whether an expedient resolution of those issues is feasible.

Respectfully submitted,

/s/ Joelle K. Ogg  
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General Counsel  
DC Energy, LLC  
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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 Washington, DC this 27<sup>th</sup> day of October, 2011.

/s/ Laura J. Kelly  
Laura J. Kelly  
SNR Denton US LLP  
1301 K Street NW  
Suite 600, East Tower  
Washington, DC 20005  
Email: [laura.kelly@snrdenton.com](mailto:laura.kelly@snrdenton.com)

Attachment A

October 20, 2011 PJM Notification



955 Jefferson Avenue  
Valley Forge Corporate Center  
Norristown, PA 19403-2497

Vincent P. Duane  
V.P. & General Counsel  
[duanev@pjm.com](mailto:duanev@pjm.com)  
(610) 666-4367

October 20, 2011

**Via Email [stuart.caplan@snrdenton.com](mailto:stuart.caplan@snrdenton.com)**

Stuart A. Caplan, Esquire  
SNR Denton US, LLP  
1221 Avenue of the Americas  
New York, NY 10020-1089

**Re: *Billing Adjustment Relating To Internal Bilateral Transactions***

Dear Mr. Caplan:

On behalf of PJM Interconnection, L.L.C. ("PJM"), thank you for taking the time to repeatedly discuss with us the question of certain Internal Bilateral Transactions ("IBTs") between DC Energy LLC and DC Energy Mid-Atlantic LLC, entered into PJM's eSchedules as recently as July 2011. While we understand your clients' position with respect to their IBTs, PJM has decided these transactions do not qualify for reporting in eSchedules under Section 1.7.10(a) of Schedule 1 of the Amended and Restated Operating Agreement of PJM ("Operating Agreement") and the parallel provisions of Attachment K-Appendix of the PJM Open Access Transmission Tariff ("Tariff") because the transactions did not contemplate the physical transfer of energy.

Accordingly, those cleared increment offers and decrement bids made by DC Energy and its affiliate during the period (and related to the inaccurately reported IBTs) should have been charged applicable Balancing Operating Reserve charges.

PJM has the authority and obligation under Section 10.4 of its Tariff and Section 15.6 of its Operating Agreement to issue adjusted billing statements to correct such errors for a period no later than 2 years from when the error is first discovered. Given we identified the problem in late July of this year, PJM will, therefore, undertake a process to calculate Balancing Operating Reserve charges beginning with those transactions that cleared in July 2009.

PJM has begun calculating the requisite billing adjustments. As past month corrections become available, PJM will proceed to bill such corrections in the current billing and settlement cycle. While we will work expeditiously to make the requisite corrections, the process will involve charges over several monthly billing and settlement cycles going forward and into 2012. The precise duration will depend on staff and resource availability.

Stuart Caplan, Esquire  
October 20, 2011  
Page 2

We intend to include the first adjustment in the October billing statement to be issued on November 7, 2011, unless staff and resource commitments or other billing priorities make this infeasible. In addition, due to current staff and resource commitments, this adjustment will cover corrections for only one month of transaction activity, *i.e.*, July, 2009. However, we expect that each of the billing statements issued in December 2011 and thereafter will include billing adjustments for multiple months, again unless staff and resource commitments or other billing priorities make this infeasible.

Should you have any questions with regard to this matter, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Vincent P. Duane", with a long horizontal flourish extending to the right.

Vincent P. Duane  
V.P. & General Counsel

cc: Andrew Ott, PJM  
Dr. Joseph Bowring, Monitoring Analytics, LLC (via email)

Attachment B

Affidavit of Dr. Andrew J. Stevens

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

<b>DC Energy, LLC and</b>	)	
<b>DC Energy Mid-Atlantic, LLC</b>	)	
<b>Complainants</b>	)	
	)	
<b>v.</b>	)	<b>Docket No. EL12- _____ -000</b>
	)	
<b>PJM Interconnection, L.L.C.</b>	)	
<b>Respondent.</b>	)	

**AFFIDAVIT OF DR. ANDREW J. STEVENS**

Dr. Andrew J. Stevens, having been duly sworn, deposes and states as follows:

**Qualification and Purpose**

1. My name is Dr. Andrew J. Stevens. My business address is 8065 Leesburg Pike, 6th Floor, Vienna, VA 22182-2733. I currently serve as Managing Director of DC Energy, LLC (“DC Energy”). I oversee the management of trading and investment activities as well as our participation in stakeholder processes in the PJM Interconnection L.L.C. (“PJM”) market and other similarly organized markets in the United States.
  
2. I graduated from the California Institute of Technology, in Pasadena, California, with a B.S. degree in Chemistry in 1992. I received an M.A. degree in Chemistry and a Ph.D. in Chemical Physics from Harvard University, in Cambridge, Massachusetts, in 1994 and 1998, respectively. From 1998 to 2002, I was employed by Dean & Company, a business strategy consulting firm. Working for Dean & Company, I have extensive experience in the energy and electricity industry, managing specific casework in retail rate structure, merger integration, wholesale generation economics,

generation and load portfolio hedging, energy and electricity trading, and transmission contract valuation. I am also responsible for directing and supervising DC Energy's participation in stakeholder committee processes concerning ISO markets and Federal Energy Regulatory Commission ("Commission") proceedings concerning electric and related financial markets.

3. My affidavit has the following primary objectives:

- Providing a description of the Internal Bilateral Transactions ("IBTs") and virtual transactions in which DC Energy and its affiliate, DC Energy Mid-Atlantic, LLC ("DCE Mid-Atlantic") engaged and which PJM now seeks to retroactively unwind, re-settle and re-bill;
- Describing the benefits that DC Energy and DCE Mid-Atlantic's IBTs have provided to PJM's market;
- Describing the gross profits DC Energy and DCE Mid-Atlantic derived from its use of IBTs, and the relationship between gross virtual profits and market convergence benefits;
- Offering a specific example of how DC Energy and DCE Mid-Atlantic used an IBT to provide convergence to the PJM market;
- Explaining that DC Energy and DCE Mid-Atlantic's transactions would not have provided market convergence benefits if their IBTs had not been allowed;
- Describing the virtual transactions in which DC Energy and DCE Mid-Atlantic continue to engage;
- Confirming that neither the market nor any market participant was harmed in any way by DC Energy and DCE Mid-Atlantic's IBT-related transactions;
- Explaining the significant and irreversible harm that DC Energy and DCE Mid-Atlantic will suffer if their IBTs are retroactively disallowed, as well as the unfair windfall that other market participants will receive in that circumstance;
- Demonstrating that DC Energy and DCE Mid-Atlantic's IBTs are identical in form to real time IBTs approved by PJM;

- Explaining that DC Energy and DCE Mid-Atlantic acted in good faith and in reliance on previous PJM statements with regards to their IBT-related activity;
- Describing the rules of offsetting related to real time IBTs;
- Explaining that DC Energy and DCE Mid-Atlantic's use of IBTs is consistent with the use of IBTs by other market participants;
- Explaining the commonplace definition of the "physical delivery of energy" in industry bilateral agreements;
- Describing PJM's inherent market structure pursuant to which any bilateral transaction conducted between counterparties (i.e., not PJM) and scheduled for physical delivery necessarily involves a delivery to PJM and/or a purchase from PJM;
- Confirming that DC Energy and DCE Mid-Atlantic currently do not engage in IBTs and explaining the rationale behind the decision to stop conducting such transactions;
- Describing how this proceeding will affect DC Energy and DCE Mid-Atlantic's future transactions; and
- Explaining how PJM's failure to provide any examples of how DC Energy and DCE Mid-Atlantic can satisfy PJM's current interpretation of its tariff has impacted DC Energy and DCE Mid-Atlantic and how it will affect other market participants.

#### **Description of Internal Bilateral Transactions**

4. The IBTs between DC Energy and DCE Mid-Atlantic provide for the physical transfer of energy similar to any use of the IBT by market participants in PJM. The Companies' IBT is in the form of confirmation executed pursuant to a standard Power Annex of an International Swaps and Derivatives Association ("ISDA") agreement. The IBT reflects a schedule under which PJM transfers or delivers energy to a counterparty who is also a market participant in PJM; the IBT allows market participants to transfer the responsibility of paying PJM for the energy and/or the right to be paid by PJM for the energy delivered to PJM. Delivery is accomplished



by submitting a delivery schedule associated with the bilateral contract through the eSchedule tool maintained by PJM.

**DC Energy and DCE Mid-Atlantic's IBTs Provided Benefits to the Market**

5. The IBTs that DC Energy and DCE Mid-Atlantic placed enabled the two companies to economically engage in certain virtual transactions that in turn helped the flows and prices in the PJM day-ahead ("DA") market converge to the PJM real-time ("RT") market. As long recognized by the Commission, DA-RT convergence is good for multiple reasons – including the fact that it provides the right price incentives for physical entities to fully and fairly participate in the DA market, which in turn provides significant reliability and economic efficiency benefits. The economic efficiency benefits arise because commitment and dispatch models have access to a wider (and hence more cost-effective) range of resources in the DA market than the RT market. The reliability benefit arises because when DA flows are aligned with RT flows, this means less re-dispatch is required in RT. Many generators have limited ability to respond to changes in system conditions in RT. Generator operational and economic characteristics such as start-up time, ramp rates (the ability to increase or decrease output over a period of time, such as 5, 10 or 30 minutes), minimum output level, minimum run time, minimum down time, the number of starts per day or week a generator may undertake without damaging equipment, and minimum generation and start-up costs affect the ability of PJM to respond to changes in conditions from the DA schedule to RT needs. There are greater operational and economic solutions in the DA taking into account all of these factors.

**DC Energy/DCE Mid-Atlantic's IBTs Were Used in Concert with Virtual Transactions to Provide a Flow Convergence which Benefited the PJM Market**

6. DC Energy observed systematic divergences between DA and RT flows within PJM load zones, and determined that this divergence was likely due to the reliance of load and supply on the PJM RT interchange market (and very little if any net usage of the PJM DA market). In order to address this divergence, (i) DCE Mid-Atlantic placed virtual load bids for the specific load missing in the DA market, (ii) DC Energy placed virtual supply offers for the specific supply resource missing in the DA market, and (iii) then DC Energy and DCE Mid-Atlantic entered into a RT IBT in the form of a bilateral agreement for the physical transfer of energy in PJM with each other.<sup>1</sup> This bilateral agreement addressed the individual imbalances that their virtual load and virtual supply would otherwise create in the RT market. Without this bilateral agreement, DC Energy would be responsible for purchasing power in the RT market from PJM (owing to its DA supply being virtual), and DCE Mid-Atlantic would be responsible for selling power in the RT market to PJM (owing to its DA load being virtual). With the bilateral agreement, DC Energy instead purchased this physical power from DCE Mid-Atlantic. In doing so, and recording this purchase with PJM as an IBT, DC Energy and DCE Mid-Atlantic addressed any requirement to purchase or sell physical power to PJM in the RT market, as well as any requirement to pay deviation charges associated with those purchases and sales. Taken together,

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<sup>1</sup> The roles of the two companies were often reversed, with DC Energy submitting DECs and was the seller while DCE Mid-Atlantic submitted INCs and was the purchaser. However, for purposes of illustration, this affidavit treats DC Energy as the entity submitting INCs and DCE Mid-Atlantic submitting DECs.

DC Energy's and DCE Mid-Atlantic's virtual and IBT transactions restored the DA flow that had been missing from the market without creating additional imbalances.

7. The divergence in DA and RT flows described above (i.e., the presence of a RT flow between supply and load and the absence of a DA flow between supply and load) was accompanied by a small divergence in DA and RT locational marginal prices ("LMPs"). Specifically, the difference in RT LMPs between the supply location and the load location was typically greater than the difference in DA LMPs between the two locations. The RT LMP was typically lower than the DA LMP at the supply location, and the RT LMP was typically higher than the DA LMP at the load location. By placing virtual supply at the supply location, DC Energy acted to decrease the DA LMP there, bringing it closer to the RT LMP. By placing virtual demand at the load location, DCE Mid-Atlantic acted to increase the DA LMP there, bringing it closer to the RT LMP.

**DC Energy and DCE Mid-Atlantic's Gross Profits Derived from these Transactions**

8. The IBTs enabled DC Energy and DCE Mid-Atlantic to earn money on the modest spread that remained between the DA and RT LMPs after providing the convergence benefit described above. As a result of cleared virtual supply bids, DC Energy received the DA LMP and paid the RT LMP. The virtual supply (which lowered the DA LMP to be more in line with the RT LMP) earned money on the modest day ahead - real time premium that remained at the supply location. As a result of cleared virtual demand bids, DCE Mid-Atlantic paid the DA LMP and received the RT LMP. The virtual demand (which increased the DA LMP to be more in line with the RT LMP) earned money on the modest real time - day ahead premium that remained at

the load location. By necessity, these spreads were very small, with the vast majority of instances being measured in dimes per MWh.

### **The Relationship Between Gross Virtual Profits and Market Convergence Benefits**

9. Virtual bids that provide convergence benefits earn gross profits, whereas bids that create divergence earn gross losses. As mentioned above, a cleared virtual supply bid lowers the DA LMP, and the virtual supplier collects the DA LMP less the RT LMP. When a cleared virtual supply offer is placed at a location where the DA LMP is greater than the RT LMP and brings it down towards the RT LMP, it earns a gross profit (since  $DA > RT$ ). By contrast, when a virtual supply offer clears at a location where the DA LMP is below the RT LMP, it brings the DA LMP further below the RT LMP creating a greater divergence and earning a loss (since  $DA < RT$ ). The reasoning is analogous for virtual demand bids.
10. It is generally accepted that ISO/RTO markets benefit from convergence to a degree that far exceeds the gross profits that market participants derive from the transactions that drive the convergence. Economic studies and academic papers have shown that the convergence benefits created by virtual bidding are substantial. For example, in a 2003 study, Celeste Saravia (University of California Energy Institute November 2003: Speculative Trading and Market Performance: The Effect of Arbitrageurs on Efficiency and Market Power in the New York Electricity Market) found that virtual transactions drove convergence benefits of approximately \$2/MWh (i.e., they lowered the system-wide price of energy by \$2/Mwh to bring it into alignment with RT prices). Given that virtual transactions only represented about one-tenth of overall system demand at the time of the study, this means that the benefit provided by each

individual virtual MWh may be as much as an order of magnitude greater than this \$2/MWh figure (which benefits all system demand). By contrast, the average amount of gross profit that virtual transactions earn is much lower. The Midwest Independent Transmission System Operator, Inc. (one of the few ISOs to formally publish virtual profitability statistics) routinely finds unit virtual profitability to be in the range of \$0.50 per MWh. The typical unit profit earned by DC Energy and DCE Mid-Atlantic through its IBT and related virtual transactions (which focused on intra-zonal flows) was often much lower than that, none of which would be sustainable without the IBT structure.

#### **Example of IBT Use To Provide Convergence to the PJM Market**

11. DC Energy/DCE Mid-Atlantic provided the following specific example of how an IBT was used to provide convergence to the PJM market in its recent discussions with PJM.
12. The RT market LMPs over an extended period of time suggest consistent flows from the ABC co-gen power plant to the XYZ industrial load<sup>2</sup> (located in very close electrical proximity to each other within a single PJM zone), whereas the DA market LMPs over this same period of time are not consistent with these flows. This means that the net effect of procurement and scheduling activities of these facilities, whatever they may be, leaves them effectively relying on the PJM RT interchange market for the intra-zonal supply and not the DA market. To address this, DCE Mid-Atlantic systematically entered load bids in the DA market in the form of Decremental Bids (“DECs”) to restore the XYZ industrial load in the DA market.

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<sup>2</sup> The detailed node description for both co-gen and industrial load has been sanitized for confidentiality reasons. In private discussions with PJM, DC Energy used the exact location description in discussing this detailed transaction example.

This cleared load position restored load that was missing from the DA market. Similarly, DC Energy systematically entered supply bids in the DA market in the form of Incremental Offers (“INCs”) to restore the supply of the ABC co-gen power plant. This cleared supply position restored supply that was missing from the DA market. To address the fact that the supply and load are being served out of the PJM RT interchange market, DCE Mid-Atlantic entered into a RT IBT in the form of a bilateral agreement for the physical delivery of energy in PJM with DC Energy wherein DCE Mid-Atlantic was the seller and DC Energy was the buyer. This set of transactions, namely the integrated DEC, IBT and INC, acted together to converge the PJM DA and RT markets, providing the benefits to the PJM market as a whole described above.

13. During the period of July 1, 2009 to July 14, 2011, DC Energy and DCE Mid-Atlantic transacted an hourly average of 49 MW in this way to address the persistent absence of the ABC co-gen and XYZ industrial load from the DA market. The activity created increased convergence at both nodes. As discussed in more detail below, during this period, in the hours when DC Energy did transact, we found that there was greater DA - RT LMP convergence than in the hours when DC Energy was not transacting. This activity created gross profits to DC Energy of \$0.56/MWh and DCE Mid-Atlantic of approximately \$0.55/MWh. The net profits also illustrate that there was increased convergence and, thus, benefits to the PJM market.
14. DC Energy and DCE Mid-Atlantic have empirically measured the DA-RT convergence benefit they provided the market in the ABC-XYZ example described above. In fact, DC Energy collected hundreds of individual measurements of the

convergence benefit it provided during the July 1, 2009 to July 14, 2011 time period by not transacting in certain hours and measuring the DA-RT divergence in those hours, and then comparing the DA-RT divergence in adjoining hours when it did transact. In the hours when DC Energy did not transact, we found that on the ABC gen node, the DA LMP was \$2.63 higher than the RT LMP, and we found that on the XYZ load node, the DA LMP was \$0.12 higher than the RT LMP. In the adjoining hours when DC Energy did transact, we found that at the ABC gen node, the DA LMP was only \$1.58 higher than the RT LMP, and at the XYZ load node, the DA LMP was only \$0.10 higher than the RT LMP. DC Energy and DCE Mid-Atlantic converged the prices at both nodes - and lowered the DA premium on one of the nodes by a considerable amount (over \$1) during the hours transacted. This lowering of the DA premium translates directly into savings for load and consumers.

15. This particular example illustrates one of the more consistent (and profitable) examples of the instances wherein DC Energy and DCE Mid-Atlantic acted to converge the DA market flows to that of the RT market. The vast majority of instances had similar flow characteristics, but largely less profitable arbitrage opportunities.

**DC Energy and DCE Mid-Atlantic Would Not Have Provided this Convergence Benefit to the Market if its IBTs Had Not Been Allowed**

16. Without the IBTs between DC Energy and DCE Mid-Atlantic, each entity would have been subject to balancing operating reserves deviation (“deviation”) charges because (as described above) the lack of an IBT would have meant relying on PJM to procure/supply the balancing energy requirement created by DC Energy’s and DCE Mid-Atlantic’s virtual transactions, and this reliance, absent an IBT, carries with it an

obligation to pay deviation charges on each MWh of energy. These deviation charges would have been many times greater than the economic gain that DC Energy and DCE Mid-Atlantic earned on the difference in DA and RT LMPs described above, so DC Energy and DCE Mid-Atlantic would not have submitted these virtual transactions and would not have converged the markets.

17. To use the ABC co-gen and XYZ industrial load example described above, the deviation charge burden to each entity would have been approximately \$1.54/MWh – nearly three times the gross unit profit that DC Energy/DCE Mid-Atlantic earned. Further, this transaction was one of the more profitable transactions out of the hundreds of transactions that DC Energy and DCE Mid-Atlantic conducted. The actual deviation charge burden across all transactions would have been substantially more than three times the gross profits earned.

**DC Energy and DCE Mid-Atlantic Currently Engage in Virtual Transactions Without the use of IBTs; Such Transactions Are Consistent with the Explanations Above**

18. As relevant to the IBTs, there are two fundamentally different types of transactions in which DC Energy and/or DCE Mid-Atlantic engage.

The type of transaction of most relevance to this Complaint involves the identification of power flow differentials between two nearby intra-zonal locations.<sup>3</sup> These flow

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<sup>3</sup> The other type of transaction involves identifying *individual point locations* where there is likely to be a high amount of volatility, then making a fundamental forecast of that location's RT LMP, and finally submitting virtual supply offers (INCs) above and virtual load bids (DECs) below that RT LMP forecast. These bids and offers are conservatively priced given the level and potential volatility of deviation charges, in order to ensure that a bid will be profitable accounting for these charges if such a bid were to clear in the DA market. If the location's DA LMP turns out to be significantly higher than the RT LMP forecast, DC Energy and/or DCE Mid-Atlantic clears the virtual supply offer. Alternatively, if the location's DA LMP turns out to be significantly lower than the RT LMP forecast, DC Energy or DCE Mid-Atlantic clear the virtual demand bid. These bids provide convergence benefits to the market, and do not rely on any associated IBTs. Generally, IBTs could not have balanced the Deviations except in the unusual circumstance where the Deviations were in the same zone and had opposite signs.



differentials create modest LMP differentials, and can only be effectively converged by a combination of a virtual supply offer (priced lower than the anticipated clearing price to clear the DA market at the supply location), a virtual demand bid (priced higher than the anticipated clearing price to clear the DA market at the demand location), and an IBT to address the physical flow differentials. As described, these transactions are priced without a specific dependence on the energy price and are expected to clear in tandem with the prior anticipation that the energy settlement would be matched with the IBT transaction and that their associated physical deviations are offset by the IBT. As a result, this type of transaction is inherently different in character. Without the IBT, it is not economically feasible to conduct these transactions and provide convergence benefits to the market.

**Neither the Market nor any Market Participant Was Harmed in any way by the DC Energy/DCE Mid-Atlantic IBTs and IBT-Related Transactions**

19. As described above, the market benefited because the net effect of DC Energy and DCE Mid-Atlantic's transactions was increased convergence of the PJM DA market to the PJM RT market. No one was harmed by the activity of DC Energy and DCE Mid-Atlantic.
20. Of particular note is that the related virtual transactions did not act to increase the deviation charge amounts that are collected from participants in order to fund the balancing operating reserve credits paid to generators, and rather acted to decrease these amounts. These amounts are paid out to generators that are not dispatched in the DA market and need to be dispatched in the balancing market, or else need to alter their dispatch in the balancing market on account of deviations relative to the DA market. They are charged to those participants who create DA to RT deviations. One

can either consider DC Energy's activities from a theoretical cost-causation perspective or from a practical settlement allocation rule perspective. From either perspective, it is clear that DC Energy and DCE Mid-Atlantic did not act to increase these amounts and did not harm other market participants.

21. First, from a cost-causation perspective, since DC Energy/DCE Mid-Atlantic's virtual transactions converged flows and prices in locations where they were otherwise diverged, DC Energy/DCE Mid-Atlantic's transactions acted to ensure that DA supply was better matched to RT supply and DA demand was better matched to RT demand at individual locations throughout the PJM system. This reduced the need for balancing market re-dispatch and hence reduced the overall level of balancing operating reserve credits. By reducing the overall level of balancing operating reserve credits through its bidding activities, DC Energy should not be subject to the deviation charges that fund these credits.
22. Second, from a settlement rule allocation perspective, PJM has determined that only those participants who create DA to RT deviations after accounting for the net effect of all transactions in a given zone should be allocated charges. The combined (net) effect of DC Energy's virtual supply offers, virtual demand bids and IBTs for the transactions at issue was in fact zero net deviation within the applicable zone. Indeed, this is why PJM did not subject DC Energy to deviation charges for these transactions during the Retroactive Period, consistent with the tariff provisions relating to the allocation of deviation charges.
23. It is important to point out that DC Energy and DC Energy Mid-Atlantic were subject to deviation charges for virtual transactions as described in footnote 3 above where

deviations were not offset by an IBT. It was not the case that through its actions DC Energy somehow avoided the deviation charges that should have otherwise applied to it according to the PJM tariff.

24. The IBT and related INC/DEC transactions were all contained within a single zone and represented balanced positions. As such they did not add to or subtract from total market deviations. Neither would the removal of the IBTs and related INC/DEC transactions have added to or subtracted from total market deviations. As a result, the denominator for the allocation of deviation charges would not have been affected in either instance.

25. As explained above (and elaborated on further below), INC and DEC transactions form an integral part of the IBT transaction structure. PJM permits the netting of INCs and DECs associated with IBTs provided the INCs, DECs and IBTs are within the same zone. Offsetting supply or load deviations within the same zone do not contribute to the incurrence of deviation costs.

**DC Energy and DCE Mid-Atlantic Will be Significantly Harmed if IBTs Are Disallowed Retroactively**

26. The retroactive elimination or unwinding of the IBTs between DC Energy and DCE Mid-Atlantic would cause two major issues. First, it would necessitate a resettlement of the physical energy transfers that have already been delivered and paid for between DC Energy and DCE Mid-Atlantic, as well as between DC Energy and PJM and DCE Mid-Atlantic and PJM. Any resettlement would create a large cash flow event related to the unwinding of the previously settled transfers. Second, the retroactive unwinding of the IBTs also would impose retroactive deviation charges on both DC Energy and DCE Mid-Atlantic related to the load and supply deviations each held in

the PJM RT interchange market related to the associated day-ahead purchases (DECs) and sales (INCs). Such retroactive re-billing would impose a large and unexpected cost associated with the convergence activities of DC Energy and DCE Mid-Atlantic.

27. Since the average deviation charge is significantly larger than the average convergence profit recognized by DC Energy and DCE Mid-Atlantic, the retroactive application of deviation charges would cause disproportionate and unexpected losses to both DC Energy and DCE Mid-Atlantic. Without the ability to offset its positions in the PJM RT interchange market through the IBT, neither DC Energy nor DCE Mid-Atlantic would have entered INC or DEC transactions to serve as DA supply and load, respectively, that DC Energy knew existed but was missing from the DA schedule. Therefore, the retroactive elimination or unwinding of the IBTs without the ability for DC Energy or DCE Mid-Atlantic to revisit related purchases or sales in the DA market causes significant and irreversible harm, as further detailed below.

**Retroactive Elimination of the IBT as Proposed by PJM Will Cause Irreversible Harm to DC Energy and/or DCE Mid-Atlantic**

28. The net effect of the PJM retroactive re-billing would create significant liabilities for both DC Energy and DCE Mid-Atlantic. Based on my understanding of PJM's proposed re-billing, these combined liabilities are expected to be in the tens of millions of dollars shared between DC Energy and DCE Mid-Atlantic. Such large unexpected liabilities would be significant to any market participant, even a large utility, and would significantly reduce any market participant's capital. Because DC Energy and DCE Mid-Atlantic always reserve an adequate amount of risk capital while productively employing the rest of their capital, such a large liability will necessarily contract our planned participation in the hedging and trading markets,

which we believe would harm and constrain market efficiency. In addition to curtailing future activities, DCE Mid-Atlantic might have to liquidate some existing positions causing instability to the market. DCE Mid-Atlantic is one of the largest buyers and sellers of Financial Transmission Rights (“FTR”) in the PJM FTR market, and liquidations of FTR positions will be an inherently destabilizing event in an otherwise illiquid market. In addition, DCE Mid-Atlantic is a key counterparty to DC Energy in conjunction to the latter’s bilateral market activity. DC Energy is an active and important counterparty for power spreads in the wholesale market for PJM. The liquidation of DCE Mid-Atlantic’s portfolio (whether in part or in full) would have significant impact on the ability for DC Energy to continue to provide liquidity in the PJM wholesale market. When one accounts for the direct deviation charge liability that DC Energy would also bear, the impact would be even more substantial.

**Disallowing the IBTs Between DC Energy and DCE Mid-Atlantic Will Create an Unfair Windfall for Others**

29. If PJM implements the proposed retroactive re-billing, other PJM market participants will receive the deviation charges paid by DC Energy and DCE Mid-Atlantic, even though the associated transactions to which deviation charges are retroactively applied would not have been placed by DC Energy and DCE Mid-Atlantic or would have been structured differently had PJM applied the charges at the times of initial settlement. Moreover, the market participants have already received the benefits of convergence provided by the DC Energy/DCE Mid-Atlantic virtual transactions associated with the IBTs. In effect, the other market participants would receive convergence benefits that they otherwise would not have received plus payments from DC Energy and DCE Mid-Atlantic for deviations that in effect were balanced

and did not cause any divergence to the PJM market. The market participants were not harmed as the DC Energy/DCE Mid-Atlantic transactions did not cause any divergence and were balanced transactions for both the market and DC Energy/DCE Mid-Atlantic, but they would receive a windfall equal to the amount of deviation charges retroactively re-billed to DC Energy and DCE Mid-Atlantic.

30. It is important to go through the logic of what would have happened had PJM disallowed the IBTs between DC Energy and DCE Mid-Atlantic at the time the IBT was submitted. In almost all cases, DC Energy and DCE Mid-Atlantic would also not have placed the virtual supply and load transactions associated with the IBT, and (as described above) would not have provided the *reduction* in deviation charges that it provided. As such, the market would have incurred *greater* deviation charges absent the participation of DC Energy and DCE Mid-Atlantic. It does not make sense for other market participants to be credited the retroactive deviation charges paid by DC Energy and DCE Mid-Atlantic when in reality had the IBTs been rejected or PJM notified DC Energy that it thought the charges should apply, the other market participants would have *paid* more in deviation charges.
31. The potential gains others might experience as offsets to their already paid deviation charges if PJM were to retroactively assess deviation charges on DC Energy and DCE Mid-Atlantic are illusory. Again, one needs to consider that, had the IBT been disallowed at the transaction time, then DC Energy and DCE Mid-Atlantic would also not have placed the associated virtual bids and offers, and the re-dispatch of (and deviation charge payments to) generators would have resulted in increased deviation

charges paid by market participants. I know of no resettlement methodology that can effectively address this inequity.

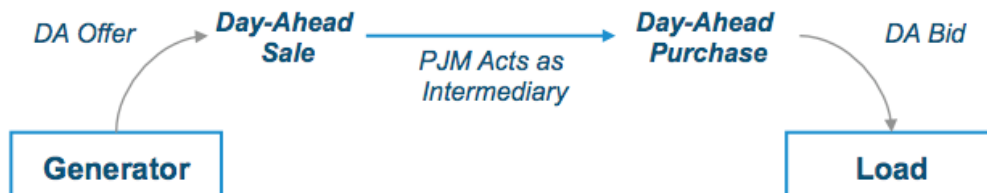
32. In summary, in any resettlement scenario, an inappropriate windfall results from the disallowance of the DC Energy/DCE Mid-Atlantic IBTs and the concomitant reassignment of the deviation charges PJM proposes to collect from DC Energy and DCE Mid-Atlantic.

**The Use of the RT IBT Approved by PJM is Identical in Form to the Use by DC Energy and DCE Mid-Atlantic**

33. When PJM approached DC Energy in July 2011 and explained its concern about the use of Internal Bilateral Transactions by DC Energy and DCE Mid-Atlantic stemming from its current interpretation of a required physical element, PJM did not articulate a clear definition of what this physical requirement means nor how it is met. It was not until a subsequent meeting, on August 3, 2011, that PJM articulated one example of what PJM deems an appropriate use of a RT IBT. The form and structure of this “PJM Example IBT” (see Figure 3 below) is identical to that used between DC Energy and DCE Mid-Atlantic. Later in this affidavit I will demonstrate that the primary use of the DC Energy/DCE Mid-Atlantic IBT – to adjust flows in the DA market to match the flows expected in the RT market – is pro-competitive and results in market convergence. There is no substance to PJM’s perception that the PJM Example IBT’s physicality is any different than the physicality of the DC Energy/DCE Mid-Atlantic IBT. The reality is that the use of RT IBT transactions by traditionally physical participants can act to create divergence while the DC Energy and DCE Mid-Atlantic IBT acts to converge and reverse this divergence.

34. It is instructive to examine the use of the RT IBT in the PJM Example IBT in detail.

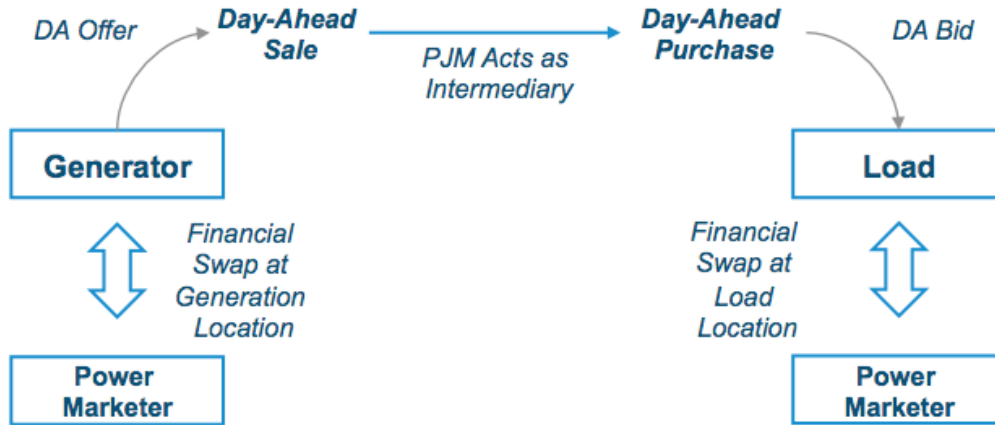
As shown in Figure 1, the generation and load-serving entities transact in the DA market with PJM acting as an intermediary. Generator owners are required to offer their available capacity in the DA market, and market rules provide incentives for load serving entities to procure their expected needs in the DA market. PJM effects the purchasing or procures all power committed in the DA market (on behalf of all market participants), models its flow through the network and provides firm commitments to load serving entities at their customer electrical buses. In addition, PJM allows participants to take positions as intermediaries in the overall process of balancing generation resources to meet end-use customer needs in the form of INC and DEC transactions. The involvement of a broad set of participants as intermediaries provides for competition in the DA market and convergence to the expected physical flows in the RT market.



**Figure 1:** Load and generation in the Day-Ahead Market.  
There are no deviations and the market is converged

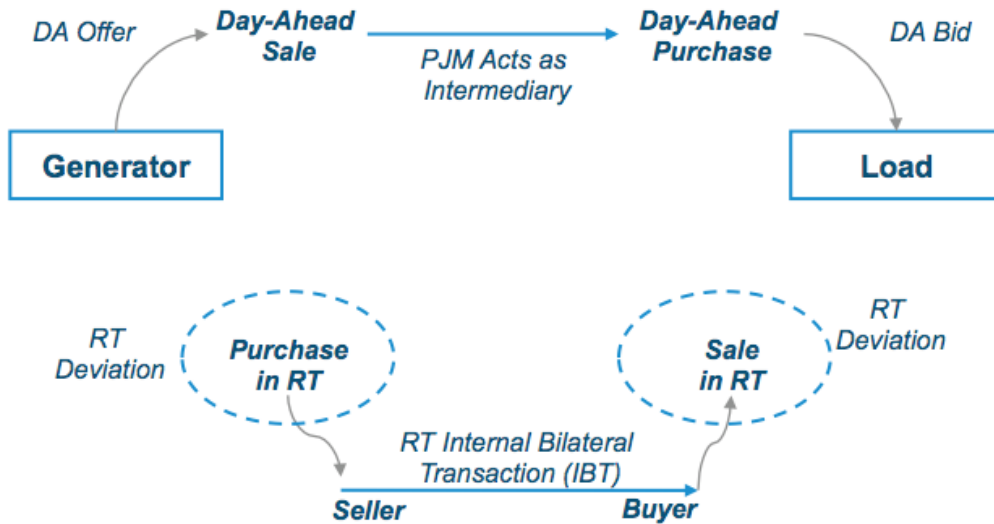
35. Participants who want to hedge their expected positions in the DA market may enter into swap transactions outside of the PJM market. These swap transactions, as shown in Figure 1A, are purely financial and have no net effect on flows, spot pricing and or interchange imbalances.





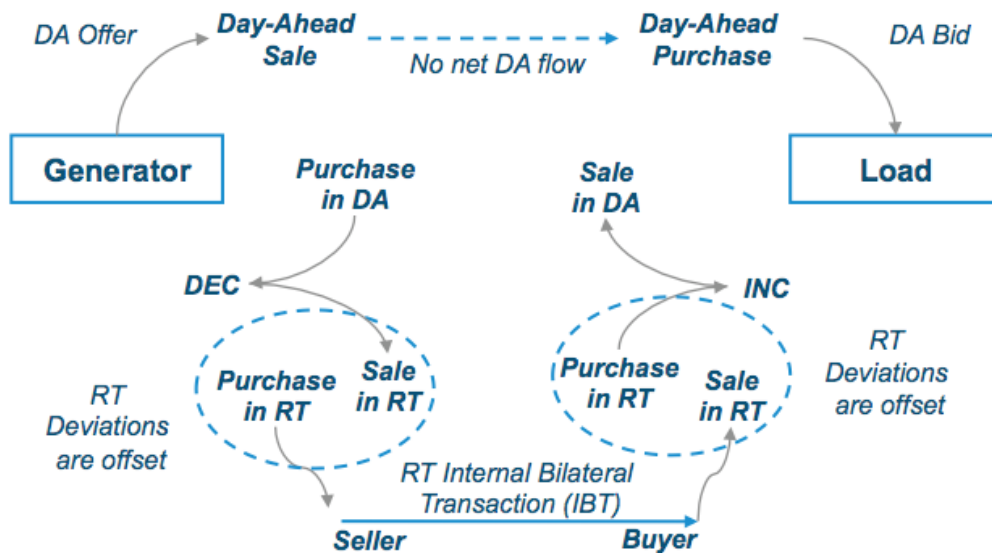
**Figure 1a:** Load and generation conduct hedging activities outside of the PJM market. There are no deviations and the market is converged

36. The use of a RT IBT between counterparties adds an extra layer of complexity to the transaction structure. The RT IBT represents a transfer of energy between the two counterparties in PJM billing systems and introduces a set of real time deviations. As shown in Figure 2, the RT IBT would expose counterparties to deviation charges if scheduled without any adjustments in previously balanced DA positions. In addition, since the RT IBT is settled between the counterparties by PJM at RT spot interchange prices, the counterparties would be exposed to deviations in the spot prices between RT and DA markets.



**Figure 2:** The use of a RT IBT without any adjustment to Day-Ahead positions results in RT deviations to each counterparty.

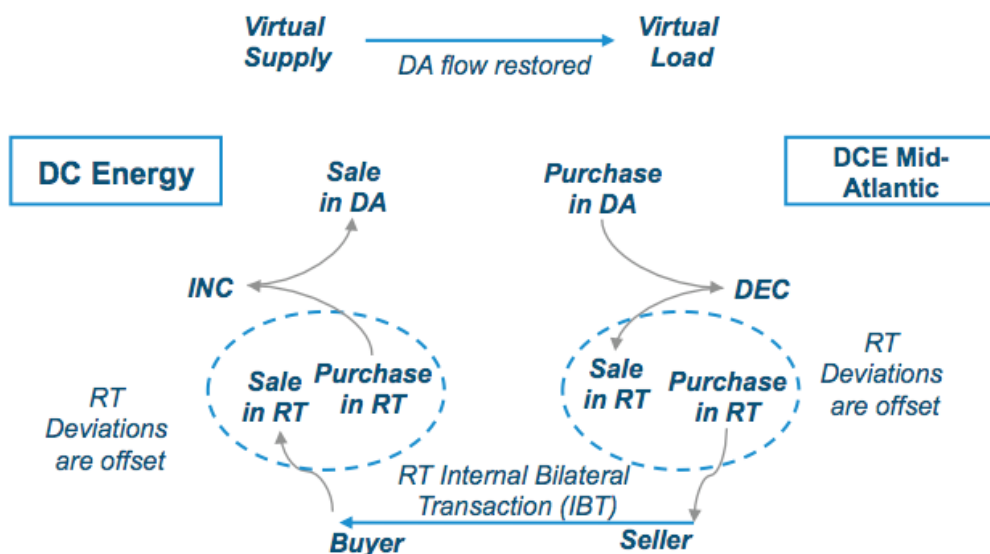
37. In order to avoid operating charges related to RT imbalances (deviation charges), and in order to remove their exposure to DA spot prices, the use of the RT IBT is accompanied by INC and DEC transactions. The generation entity would place a DA DEC purchase (e.g., “virtual load”) transaction and the load entity would place a DA INC sale (e.g., “virtual supply”) transaction in conjunction with the RT IBT transaction as shown in Figure 3, the PJM Example IBT.



**Figure 3:** The PJM Example of appropriate RT IBT. The counterparties use INC and DEC transactions to remove their exposure to the DA market. The RT IBT transaction offsets the INC and DEC deviations. The DA and RT market flows are no longer converged.

38. This is the example that PJM provided DC Energy on August 3, 2011, demonstrating their view of an appropriate use of the RT IBT. As demonstrated in the PJM Example IBT, the generator and load entities place virtual INC and DEC transactions to effectively remove the net effect of their flow in the DA market. The generation entity must place a “virtual load” bid in the DA market, and the load entity must place a “virtual supply” offer in the DA market in the opposite form of their expected RT activity. This will directly result in a divergence between the DA market and the expected RT market flow. In addition, the RT IBT deviations are offset with the INC and DEC transactions for each counterparty. Through this example, PJM explicitly demonstrates that the netting of INC and DEC transactions with the use of a real time IBT is permissible.

39. The combined activity of DC Energy and DCE Mid-Atlantic is identical in form and structure to that provided by the PJM Example IBT. However, instead of resulting in market divergence, the net effect of the DC Energy-DCE Mid-Atlantic activity is to produce a convergence between the DA and RT markets by restoring flows removed by the RT IBT transaction in the PJM Example IBT. This effect is shown in Figure 4.



**Figure 4:** DC Energy and DCE Mid-Atlantic use of the RT IBT is identical in structure to that of the PJM Example and acts to restore DA flow and converge them to RT physical flows.

40. The foregoing examples illustrate how the transactions between DC Energy and DCE Mid-Atlantic are identical in form and structure to the PJM Example IBT. In addition, the use of these transactions by DC Energy and DCE Mid-Atlantic is pro-competitive and acts to bring convergence and therefore provide benefits to PJM consumers.

**The Rules of Offsetting Related to RT IBTs Forcibly Include the Use of INC and DEC Transactions To Maintain a Balanced Portfolio**

41. The detailed formulation for possible offsetting conditions involving IBT transactions was carefully reviewed for market participants in the December 20, 2005 PJM

- presentation at the Reserve Market Working Group entitled “Balancing Operating Reserves Examples.”<sup>4</sup> The rules for offsetting deviations have subsequently been updated to require that any offset occur within a hub, at an interface node or between locations within a load zone. However, the basic netting framework is unchanged.
42. This presentation explicitly demonstrates that offsetting deviations associated with INC and DEC transactions is permissible within the PJM tariff.
43. However, the example illustrates an even more important point: for deviations wholly within the PJM market (e.g., at hubs or within load zones) the only transactions whose deviations can effectively net with deviations associated with real-time IBTs are INC and DEC transactions.
44. As illustrated in pages 4 through 8 of the PJM presentation, the only options for effectively offsetting a deviation associated with the sale side of a real time IBT is a cleared DEC (or its functional equivalent of DA load purchase which is not matched in RT). A DA load purchase that is matched in RT cannot effectively offset the IBT deviation since it creates no deviations itself: it is already balanced between DA and RT. A DA sale (eSchedule) is similarly considered a balanced position. Export deviations cannot occur at hubs or within load zones. As such, there is no other DA transaction available at hubs or within load zones other than a DEC to offset the sale side of a real time IBT.
45. Similarly, as illustrated in pages 9 through 13 of the PJM presentation, the only option for effectively offsetting a deviation associated with the purchase side of a real-time IBT is a cleared INC. DA purchases (eSchedules) are considered balanced positions and import deviations cannot occur at hubs or load zones. Consequently,

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<sup>4</sup> The December 2005 Presentation is attached as Exhibit AJS-1.

there is no other DA transaction available at hub or load zones other than an INC to offset the purchase side of a real time IBT.

46. The only other theoretical potential use of a real time IBT is in isolation, without any accompanying transactions. The use of a real time IBT in isolation, however, would carry a large deviation charge burden (both on the purchase side and the sales side) and as such, would not typically be an economical option for participants. A much more preferable transaction would be the use of a DA IBT in isolation, which carries no deviation charge burden. Indeed, in no PJM example ever provided (across training materials, stakeholder meeting materials, discussions, etc.) has the RT IBT been described as occurring in isolation.
47. The foregoing illustrates how real time IBT transactions are fundamentally tied to INC and DEC transactions. Since INC and DEC transactions have a similar market settlement and character no matter the type of participant who utilizes them, and since real time IBT transactions are fundamentally tied to INC and DEC transactions, the real-time IBT transaction, in all practicality, must have a similar market settlement no matter the type of participant who utilizes them.
48. This demonstrates that the parallelism that exists between the PJM Example IBT and the IBTs used by DC Energy and DCE Mid-Atlantic is an expected characteristic of all the uses of real time IBT transactions within the PJM market.

**DC Energy and DCE Mid-Atlantic Acted in Good Faith with Regards to Their IBT Activity**

49. DC Energy undertook active discussions with PJM to ensure that its prospective activities conformed to the PJM tariff and operating agreement. Prior to engaging in any of its IBT-related transactions, in 2006, DC Energy consulted PJM staff regarding

the use of IBTs in balancing deviations related to specific INC and DEC transactions. In particular, DC Energy explained the use of two affiliates, their roles and the ability to address convergence opportunities that would not otherwise be able to be converged. Over the space of several months and on multiple occasions in Spring 2006, Bruce Bleiweis, DC Energy Director of ISO/RTO Market Affairs, and I had conversations with Mr. Andy Ott, Mr. Stu Bressler and Dr. Joseph Bowring, each a senior executive with knowledge of and responsibility for this subject area. In April of 2006, DC Energy followed up these initial conversations with a detailed explanation to PJM via a letter to Dr. Joseph Bowring<sup>5</sup> (“April 2006 Letter”), and later followed up with additional conversations with these PJM representatives. The April 2006 Letter was very specific to DC Energy and DCE Mid-Atlantic’s intent to use as IBTs as described herein, stating as follows:

We envision the new DC Energy Mid-Atlantic as a vehicle through which we will expand our activity into PJM internal bilateral transactions. We have begun to explore this market and believe that investment opportunity exists and that the market would benefit from increased participation. Initially, and to balance the DC Energy Mid-Atlantic portfolio, DC Energy will establish an internal bilateral contract with DC Energy Mid-Atlantic at the PJM western hub. Using this internal bilateral DC Energy Mid-Atlantic will transfer average real-time power-price risk to DC Energy thus allowing it to focus on the “local” congestion issues and to develop the internal bilateral market without being distracted by a significant real-time power price position. In addition, the internal bilateral contract between DC Energy Mid-Atlantic and DC Energy will provide a synergistic offset to expected deviations in the Real-Time market.

DC Energy explained, based on conversations with PJM staff, why its proposed Transactions were Tariff-compliant:

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<sup>5</sup> In April 2006, PJM’s market monitoring unit was internal to PJM and Dr. Bowring was a PJM employee.

We believe this new structure and the internal bilateral transaction at the PJM trading hub are consistent with and permitted by the PJM tariff and will have a beneficial, pro-efficiency effect on the functioning of the PJM markets. This new structure will assist in reducing the RT OR charges we are currently assessed, through the direct result of applicable netting rules involving INC and DEC positions and internal sales and purchases. (These were described in a PJM presentation entitled, “Balancing Operating Reserve Examples” in a December 20, 2005 Reserve Market Working Group meeting, wherein PJM explained how parties to virtual transactions can act within the rules of the PJM tariff to reduce Balancing Market OR charges with the use of internal bilateral transactions.) By reducing the cost of transacting in the Virtual Energy market we will be able to increase our participation by addressing convergence opportunities with thinner margins than would otherwise be economic, benefiting the market as a whole. Our new structure will not have any adverse impact on market clearing prices, the market, competition or efficiency. Quite the contrary, as we discuss above, we expect our activity will enhance market efficiency.

The letter ended with DC Energy inviting any questions or concerns that PJM might have regarding DC Energy’s proposed Transactions.

50. At that time, PJM expressed no concern or opposition to DC Energy and DCE Mid-Atlantic regarding their expected use of the IBT and related transactions. During this same period, the Companies informally discussed the use of IBTs with other PJM market participants privately and at PJM stakeholder committee meetings. The Companies learned that it was a common practice in PJM energy markets for market participants with virtual transactions to engage in IBTs to facilitate physical delivery of energy and minimize deviation charges.

51. Based on the April 2006 Letter, discussions and our own review of the applicable tariff, operating agreement, manuals, and training materials, it was and remains our



understanding that DC Energy's and DCE Mid-Atlantic's activity was wholly consistent with the PJM tariff and operating agreement as they stood both prior to and following the February 2009 tariff amendment, and, in particular, PJM's specific interpretation of the relevant language relating to the contemplation of "physical transfers of energy" in conjunction with IBT contained in the tariff at that time. In recent discussions with PJM, PJM noted that it did not take any issue with the DC Energy/DCE Mid-Atlantic IBTs that occurred prior to February 2009.

52. The present issue, according to PJM, is a related change that PJM filed on December 2, 2008. PJM's stated purpose of this filing (in Docket No. ER09-368-000) was "to make several clarifying and other revisions to PJM's credit risk management rules in order to reduce credit risk exposure to PJM members."<sup>6</sup> On January 30, 2009, the Commission accepted the proposed change to be effective February 1, 2009. DC Energy and DCE Mid-Atlantic's transactions were consistent before and after the effective date of the revisions.

53. The current dispute arose because, almost two and a half years after the Commission's January 30, 2009 order, PJM notified DC Energy that its interpretation of this tariff provision has changed. PJM's training materials, manuals and stakeholder presentations did not highlight a change in its interpretation of the permissible uses of IBT transactions. In fact, the PJM materials suggested that there would be no change to the general use of such transactions. PJM training materials and descriptions of the system available both before and after the February 2009 tariff change did not place parties on notice that PJM had changed its interpretation of what

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<sup>6</sup> *PJM Interconnection, L.L.C.*, Docket No. ER09-368-000, Filing Letter at 1 (filed Dec. 2, 2008).

constitutes the physical transfer of energy, the operative clause both before and after February 2009.

54. PJM representatives described IBTs at times as physical transactions, and at times described them as financial transactions, further demonstrating that there was ambiguity, or multiple perspectives, surrounding the physical transfer clause, which is nowhere defined. For example, in a training video which is available on the PJM website today, the lead trainer alternates between describing IBTs as physical and financial transactions.<sup>7</sup> In the time period leading up to PJM's tariff amendment filing, another PJM spokesperson in a presentation to the September 15, 2008 Credit Risk Management Steering Committee ("CRMSC") also indicated that IBTs were financial transactions.<sup>8</sup> These statements show that PJM had an ambiguous and potentially inconsistent characterization of the inherent physicality of IBTs. While the meaning of the PJM trainer and representatives with respect to "financial" and "physical" is unclear – especially with respect to the tariff language specifying a physical transfer, the example illustrates that there is significant ambiguity as to the permissibility and uses for IBT transactions. There are several potential interpretations of "financial" in the foregoing public explanations by PJM. One interpretation would be the appropriate use of an IBT for the sole purpose of effecting a balancing of financial exposure to or from PJM. In this way, a market participant with a large expected positive cash settlement from PJM (e.g., a generation owner or operator) can engage with another market participant with large expected negative

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<sup>7</sup> See <http://www.pjm.com/sitecore/content/Globals/Training/Courses/ol-int-trans.aspx> (last visited October 26, 2011).

<sup>8</sup> See Exhibit AJS-2, "Introduction to Developing the Details of the Counter-Party Clarification Initiative." This document was sent to CRMSC members on September 10, 2008 in advance of a September 15, 2008 CRMSC meeting.

cash settlement to PJM (e.g., a load serving entity or LSE) through the use of an IBT for the sole purpose of balancing their respective expected financial exposures to or from PJM. Another interpretation would be the use of the IBT as a means to provide energy transfers to balance a portfolio that is comprised mostly of day-ahead energy purchases or sales. In either context, an IBT would have a “financial” character and a “physical” character. The “financial” character would stem from the balancing of financial cash flows. The “physical” character would stem from a management of imbalances and exposure to the physical interchange market. This material illustrates that the interpretation inherent in the PJM Proposal is not consistent with its training material, has ambiguous character and is not sufficiently precise for determining the appropriateness of an IBT transaction. By contrast, the market commonly defines physical transactions by reference to the ISDA Power Annex or the Edison Electric Institute (“EEI”) Master Contract combined with PJM eSchedules, a definition in which there is no ambiguity. This is something I address below.

55. PJM materials created to clarify the use of IBTs in conjunction with the stakeholder meetings related to what soon thereafter became the December 2, 2008 Filing also refer to a hub example of an IBT (the “Western Hub IBT”) which does not involve either an LSE or a generator, and hence does not have any direct linkage to a physical asset owner.<sup>9</sup> This form of IBT involves a purchase from the PJM interchange energy market at one location, a resale of the energy to the IBT buyer at the same location, and a resale back into the PJM interchange energy market by the IBT buyer at the

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<sup>9</sup> See Exhibit AJS-3, “Clarification of Internal Bilateral Transactions” at 1, Example 3. This document was sent to CRMSC members on October 15, 2008 in advance of an October 27, 2008 CRMSC meeting. See also <http://pjm.com/training/~media/training/core-curriculum/ip-transactions-201/transact-201-internal-transactions-eschedules.ashx> (providing examples in which it is implied that the source and sink of the IBTs may not be actual physical load and generation).

same location. This example demonstrates (a) that IBTs may be used by Market Participants that are neither generators nor loads; and (b) the energy in the IBT may be supplied from the PJM interchange market and resold in the PJM interchange market making the transaction entirely intermediary in the chain of title to the energy between the generator that is not a party to the IBT and the load that is not a party to the IBT. The IBT transactions between DC Energy and DCE Mid-Atlantic share these same essential elements suggesting that the interpretation and inference in the PJM Proposal has an inherent inconsistency.

56. The PJM tariff change filed in December of 2008 was to address credit issues. For example, an explicit purpose of the IBT changes was to make sure that if an IBT seller defaulted in payment obligations to PJM associated with the energy from the PJM interchange market which was effectively transferred to the buyer, the IBT buyer would have to cover the credit risk for the seller. DC Energy and DCE Mid-Atlantic's IBTs fully satisfied this objective and explicit requirement. Moreover, in this case, it would be unwinding IBTs after the fact which could cause credit issues. Neither DC Energy nor DCE Mid-Atlantic defaulted on any of their IBTs. It is the proposed unwinding of these long-since-settled transactions that could create credit issues.

57. Given that DC Energy and DCE Mid-Atlantic had no concerns with the specific credit changes filed in December 2008 and implemented in February 2009, they continued to use IBTs in the same manner that they had previewed with PJM in 2006. DC Energy and DCE Mid-Atlantic were not aware of PJM's current interpretation until specific discussions occurred between DC Energy/DCE Mid-Atlantic and PJM

in July of 2011. DC Energy and DCE Mid-Atlantic engaged in IBTs and related transactions prior to 2009 and continued until July of 2011. Throughout this period, DC Energy and DCE Mid-Atlantic continued to submit their IBT schedules to PJM and PJM continued to accept and settle these transactions. Throughout this period, DC Energy and DCE Mid-Atlantic acted in good faith that these transactions conformed to the PJM tariff and operating agreement.

**DC Energy and DCE Mid-Atlantic's Use of IBTs Is Consistent with the Widespread Use of IBTs by Other Market Participants**

58. The IBT used by DC Energy and DCE Mid-Atlantic under their agreement for physical delivery of energy in PJM at a single point of delivery (source and sink at the same location) is a common form of bilateral trade between PJM counterparties and is one of the examples that PJM has highlighted in various materials (including an October 27, 2008 CRMSC meeting) as a permissible form for the IBT. FERC Electric Quarterly Reports ("EQR") data also highlights that the physical transfer of energy between counterparties at a hub or zone through the IBT is a common form of physical settlement of bilateral contracts. In fact, according to EQR data from Q2 2011, Western Hub is by far the most common location for internal bilateral contracts within PJM.

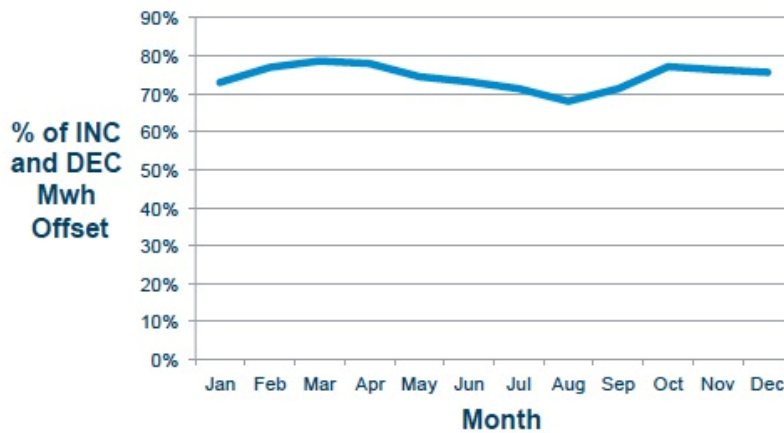
59. Internal Bilateral Transactions involving physical settlement is a widespread practice. For instance, the Q2 2011 reports in the FERC EQR database shows that 473 individual PJM market participants traded 116,247,968 MWh under physical internal bilateral arrangements within the PJM market. This amount of energy is roughly equivalent to 50% of PJM load served.

60. While DC Energy does not know how much of the market's IBT activity is DA versus RT settled, there are indications of significant use of RT IBTs. The RT IBT nets deviations stemming from DA supply offers such as an INC and DA load bids such as a DEC. PJM's 2010 State Of The Market Report (p. 254) states that 75% of all INC and DEC MWh have been offset, suggesting widespread use of the RT IBT transaction in the PJM market. The location with the largest transacted IBT volume is Western Hub, where there is no physical generation nor load, and so many IBTs necessarily take the form of the Western Hub IBT described above.

**The Commonplace Definition of the "Physical Delivery of Energy" in the Industry for Bilateral Agreements**

61. One can also utilize the State of the Market Report data mentioned above to assess whether the market as a whole substantially altered its use of IBTs in offsetting INCs and DECs at any point in time. In particular, we can compare the offsetting that occurred prior to and after the February 1, 2009 effective date of the tariff change that PJM claims imposed a new physicality requirement on participants' IBTs. If the market as a whole believed that the physicality requirement was materially altered in such a way as to invalidate certain IBTs, then one would expect to see a drop in their use and an associated reduction in the percentage of INC and DEC MWh volume offset by IBTs. In fact, one does not see such a reduction. As one can see in Figure 5 below, in January 2009 (the first month for which the State of the Market Report published this offset data), 73% of INC and DEC volume was offset. This compares with a 75% average offset for the remaining 11 months of the year. Clearly, there was not a sea change reduction in the percentage of INC and DEC volume offset by IBTs upon the February 1, 2009 tariff clarification (in fact January's percentage is

slightly lower than the yearly average). The market, like DC Energy and DCE Mid-Atlantic, continued to use IBTs in conjunction with INCs and DEC in the same way after the February 1, 2009 tariff clarification as before. According to market understanding, IBTs that had been valid before that date remained valid after that date.



**Figure 5:** The percentage of INC and DEC Mwh offset, by month in 2009. In January of 2009 (the lone month prior to the Feb. 1 tariff change), 73% of INCs and DEC were offset. In subsequent months, 75% of INCs and DEC were offset on average. Source: 2009 State of the Market Report for PJM.

62. The commonplace definition of physical delivery of energy for a typical physical trade under the standard EEI Master Contract or the standard Power Annex of an ISDA Master Contract for a transaction wholly within the PJM system is the scheduling of an IBT through PJM’s eSchedule system. This delivery or transfer of power through a mutually agreed eSchedule process is the entirety of the obligation to satisfy the requirements for physical delivery of power. There are no additional elements or steps (nor could there be) given the structure of the PJM market. The process is the same for participants with or without generation and with or without

primary load serving obligations. All participants, whether traditionally physical or not, use the same process.

63. It is commonplace for entities that do not own generation or directly serve load to act as physical intermediaries in the power markets. For instance, this is the primary activity of a Purchase and Sale Entity (“PSE”) registered in the Transmission System Interface Network (“TSIN”) of the North American Electric Reliability Corporation (“NERC”). DC Energy and DCE Mid-Atlantic are both registered as a TC/PSE and routinely conduct physical transactions as intermediaries.

**The Physical Delivery to or Purchase from a Counterparty With Subsequent Delivery to or Prior Purchase from PJM Is an Inherent Element of the PJM Market**

64. PJM has as an inherent market structure in which PJM is the buyer of all supply delivered to the market and also is the supplier of all load. As a result, any bilateral transaction conducted between counterparties (i.e., not PJM) and scheduled for physical delivery necessarily involves a delivery to PJM and/or a purchase from PJM.
65. For transactions originating or terminating outside of the ISO market, there is an explicit title transfer at the interface of the ISO. For transactions wholly within an ISO market, there is no explicit tracking of title. All associated transactions (e.g., imports, exports, purchases, sales, generation dispatched and load obligations) are simultaneously solved within the ISO’s security constrained optimal dispatch algorithm. The ISO effectively balances all schedules automatically.
66. Any attempt at drawing a complete “chain of title” for power transfers within the ISO market would forcibly include all intermediaries involved in either the DA and RT markets. For example, consider a generation asset that is committed in the DA market due to a purchase related to a virtual DEC bid. The DA commitment is used in the



DA model solution to satisfy a DA sale to a DEC bid. If this generation asset is subsequently dispatched to satisfy a RT load obligation served out of the RT interchange market at the location of the DA DEC sale, then the “chain of title” for this power necessarily must include the DA intermediaries. This is easily demonstrated since the generation asset is being paid the DA price for its generation while the real-time load is paying the RT price. Since PJM is not taking any net position in the market (physical or financial), an intermediary needs to be described as having purchased the generation commitment at the DA price, and having delivered this in turn to the RT market at a RT price. This intermediary is the market participant that submitted and cleared the DEC. If an eTag for the internal transaction were to be hypothetically created, the DA intermediaries would forcibly be an explicit part of the “chain of title.”

**DC Energy and DCE Mid-Atlantic No Longer Engage in IBTs**

67. DC Energy and DCE Mid-Atlantic ceased engaging in IBTs the day after PJM informed DC Energy of its concerns on July 13, 2011. This action was not taken due to any belief that either DC Energy or DCE Mid-Atlantic should be liable for deviation charges owing to the combined INC/DEC/IBT transactions described above, but rather as a good faith action on the part of DC Energy and DCE Mid-Atlantic to ensure that any PJM concerns were addressed.
68. As a result, during the time period since PJM communicated its concerns, DC Energy and DCE Mid-Atlantic have not placed IBTs nor the associated virtual supply and virtual demand bids, and hence have not provided the market convergence benefit that these transactions provide. In addition to the market being harmed by this

uncertainty, DC Energy and DCE Mid-Atlantic are also being harmed by this uncertainty, because they have been deprived of the ability to earn profits on these market-benefiting transactions.

**DC Energy and DCE Mid-Atlantic Will Not Use IBTs Until the Current Uncertainty Is Resolved**

69. DC Energy and DCE Mid-Atlantic do not plan to use IBTs in the future given the cloud of uncertainty described above unless and until PJM formally acknowledges that the IBTs of DC Energy and DCE Mid-Atlantic are valid and carry with it the same characteristics as the IBTs of other market participants (in particular, the ability to offset the deviation charges incurred by INC and DEC bids when those IBTs occur within the same zone at the same time and for the same volume as corresponding INCs and DEC).

**PJM Has Not Provided Any Examples Describing How DC Energy and/or DCE Mid-Atlantic Could Use IBTs with Each Other or Other Counterparties**

70. To date, it remains unclear how DC Energy and/or DCE Mid-Atlantic could use IBTs with each other or with other counterparties. In order for DC Energy and DCE Mid-Atlantic (and any other market participants) to feel comfortable using IBTs in the future, it will be critical for PJM to clearly articulate what are acceptable uses of IBTs. The basis for PJM's determination that DC Energy and DCE Mid-Atlantic's transactions are not permissible is based simply on the determination that they are not "physical" in nature. PJM has provided no clear standard for what DC Energy and DCE Mid-Atlantic (or any other participant) must do to satisfy the physicality requirement. Rather, PJM has simply asserted that it can identify "non-physical"

transactions when it sees them, and that the non-physical nature of DC Energy and DCE Mid-Atlantic's transactions were identified in this way.

71. Since PJM has not provided a clear definition of how an entity could satisfy the physical transfer of energy requirement, there is a cloud of uncertainty regarding how DC Energy and DCE Mid-Atlantic (or any market participant) can use IBTs to provide market convergence benefits and transact profitably in its markets. This applies to both the historical usage of IBTs by DC Energy and DCE Mid-Atlantic, as well as future usage.

**The Potential Market Harm Caused By the Interpretation Implicit in the PJM Proposal**

72. It is unknown whether other companies have been similarly affected, though my assumption is that as this issue becomes more publicly socialized, that other participants will be better informed of this PJM interpretation, and potentially evaluate the risk posed by the IBT portions of their business in PJM. This will likely amplify the effect DC Energy and DCE Mid-Atlantic's withdrawal will have on the market, since other participants will likely come to the same conclusion as DC Energy and DCE Mid-Atlantic once they are aware of this uncertainty. I believe that if PJM applies its current interpretation prospectively, this will lead to a significant pullback in energy transactions that benefit the market through DA to RT convergence.

73. For instance, any entity employing a real time IBT must face the possible risk of PJM re-billing and retroactive deviation charges. As demonstrated in paragraphs 40 and 48 above, the form of the real time IBT must have a similar character to that of the IBTs utilized by DC Energy and DCE Mid-Atlantic. Therefore, the interpretation inherent

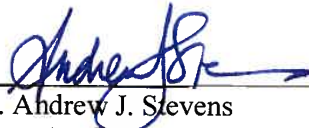
in the PJM Proposal may also infer that these IBTs are similarly inadmissible and subject to retroactive disallowance.

74. There are many specific instances in which the IBT structure would have additional similarities to the DC Energy and DCE Mid-Atlantic transactions. Some of these would include: (1) a generation owner who is engaging in wholesale power transactions involving IBTs (i) at any time when its generation assets are not operating, (ii) involving any locations which did not specifically include that of its generation assets, or (iii) in quantities not specifically related to actual physical generation; (2) a power marketer in any use of an IBT transaction where it cannot document that a counterparty has a physical character that will satisfy a presently unclear PJM definition of physicality. To that end, the power marketer will need to ensure that the counterparty has served or will serve load at the specific location of the transactions, and that the volumes of the transactions are directly proportional to the load served.
75. As a result, until all market participants understand PJM's new tariff interpretation on both a retroactive and prospective basis and how that tariff interpretation works in light of market realities, I expect a significant reduction in virtual transactions and IBTs in PJM, as well as credit exposure issues as additional transaction activity conducted by all participants (including market participants that own generation, serve load and/or market wholesale power) falls under the same definition issue identified by PJM as non-compliant and are made subject to retroactive unwinding of transactions and re-billing of deviation charges.

This concludes my Affidavit.

**AFFIDAVIT**

Dr. Andrew J. Stevens, being duly sworn, deposes and states that the contents of the foregoing Affidavit of Dr. Andrew J. Stevens are true and accurate to the best of his knowledge, information and belief.



Dr. Andrew J. Stevens  
Managing Director  
DC Energy, LLC

For and on behalf of  
DC Energy, LLC and  
DC Energy Mid-Atlantic, LLC

Subscribed and sworn to me this 24<sup>th</sup> day of October, 2011:



Notary Public #

Printed Name: Amy S. Fendley

My commission expires: 04/30/2012

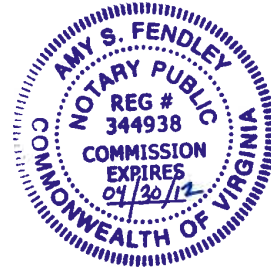


Exhibit AJS-1

December 2005 RMWG Presentation



# *Balancing Operating Reserves Examples*

RMWG  
December 20, 2005





# Balancing Operating Reserves Charges

Balancing Operating Reserve Charges Applied to:

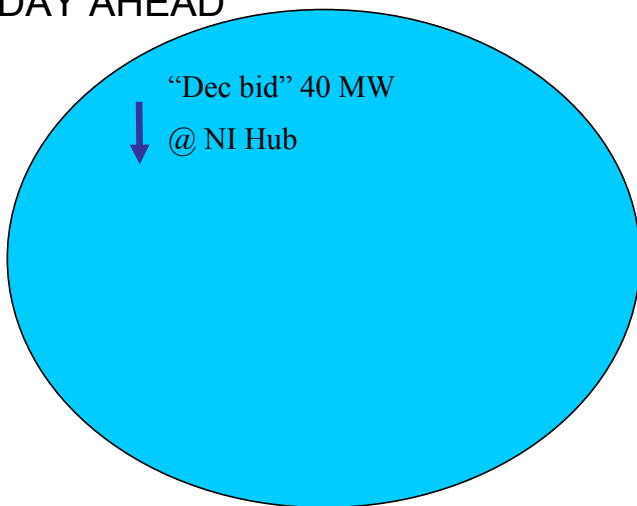
<u>DAY AHEAD</u>	<b>"Bucket 1 – Demand"</b>	<u>Balancing Market</u>
Cleared Decrements, DA Load, Sales/Export	← Net Deviation of total →	RT Load, Sales/Export
	<b>"Bucket 2 - Supply"</b>	
Cleared Increments, Purchases/Imports	← Net Deviation of total →	Purchases/Imports
	<b>"Bucket 3 – Generator Deviations"</b>	
DA Scheduled Generation	← Individual deviation on each generator not following dispatch →	RT Generation



- Demand is evaluated separately from Supply
  - DA demand is compared to RT demand; DA supply is compared to RT supply
  - Even if net of demand and supply = 0, participant could be subject to Balancing Operating Reserves charges
- Generation is evaluated on an individual basis

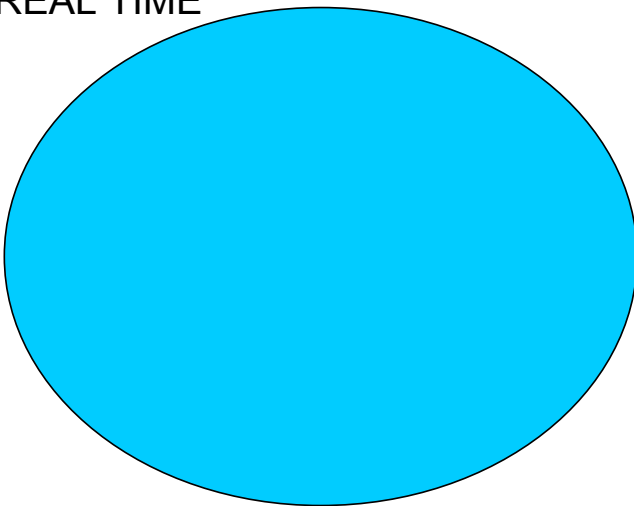
- Demand Bucket
  - Cleared decs, DA load, DA sale (eSchedule), DA exports, RT load, RT sales, RT exports
  - Looks like load to PJM
  - Generation was cleared in the DA market to match this load
  - Will have to change dispatch in RT if this “load” changes in RT

DAY AHEAD



- Looks like 40 MW DA load
- Because this dec cleared DA, 40 MW was cleared from the “supply” bucket to offset this “demand”

REAL TIME



**\*\*Dec bids are “virtual,” and do not show up as RT load**

- Looks like 0 MW RT load
- Participant had 40 MW DA load
- Operating Reserves: subject to 40 MW Balancing O.R. charge (*and 40 MW DA O.R. charge*)
- *In this case, the absence of the 40 MW RT sale impacts dispatch. Now it seems like there is an excess of 40 MW on the “supply” side of the equation.*



## Example 1 – Dec Bid in DA Market

- What could this participant do in real time to avoid a Balancing Operating Reserves charge in this scenario?
  - A) 40 MW export to NY
  - B) 40 MW import from NY
  - C) 40 MW RT load in APS
  - D) 40 MW bilateral sale (eSchedule)



## Example 1 – Dec Bid in DA Market

**ANSWERS A, C, and D are correct**

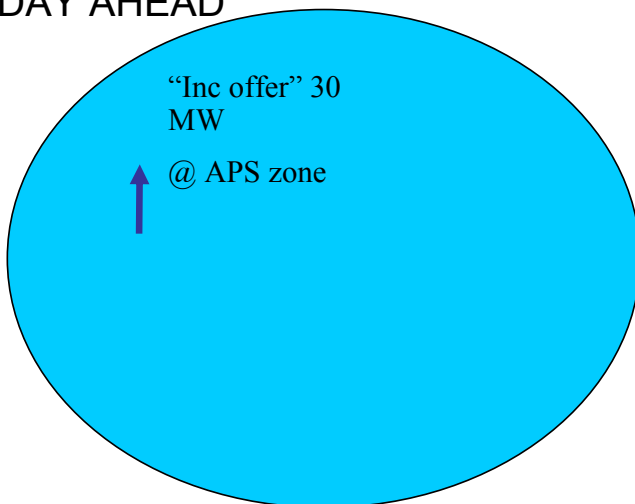
***Note: Location of the exports and load was irrelevant information***

- To avoid an Operating Reserves charge, this participant would need 40 MW of “demand” in Real Time to offset the 40 MW of “demand” that cleared in the DA market
- An additional 40 MW on the “supply” side (RT import, for example) only serves to increase the excess supply in this scenario

- Supply Bucket
  - Cleared incs, DA purchase (eSchedule), DA imports, RT purchases, RT imports
  - Looks like generation to PJM
  - This “supply” was cleared in the DA market to match DA load.
  - Will have to change dispatch in RT if this “generation” changes in RT

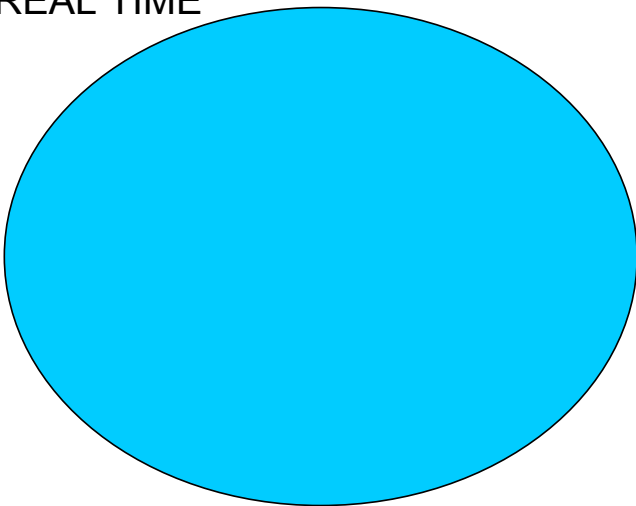


### DAY AHEAD



- Looks like 30 MW DA generation
- This inc cleared DA to match 30 MW of load in the “demand” bucket
- Another supply transaction may not have cleared DA because this inc bid was entered in the DA market

REAL TIME



***\*\*Inc offers are “virtual,” and do not show up as RT supply***

- Looks like 0 MW RT supply
- Participant had 30 MW DA supply
- Operating Reserves: subject to 30 MW Balancing O.R. charge
- ***Remember, the market was expecting to see 30 MW of “generation”!***



## Example 2 – Inc Offer in DA Market

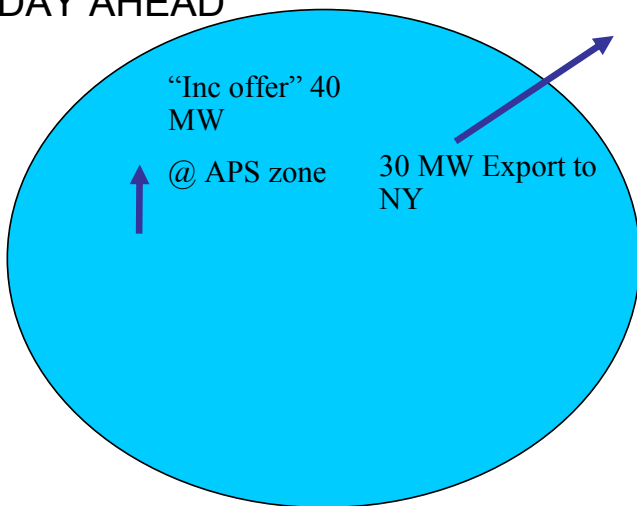
- What could this participant do in real time to avoid a Balancing Operating Reserves charge in this scenario?
  - A) 30 MW import from NY
  - B) 20 MW export to FE and a 50 MW bilateral purchase (eSchedule)
  - C) 30 MW bilateral sale (eSchedule)
  - D) 30 MW bilateral purchase (eSchedule)

**ANSWERS A and D are correct**

***Note: Location of the exports and load was irrelevant information***

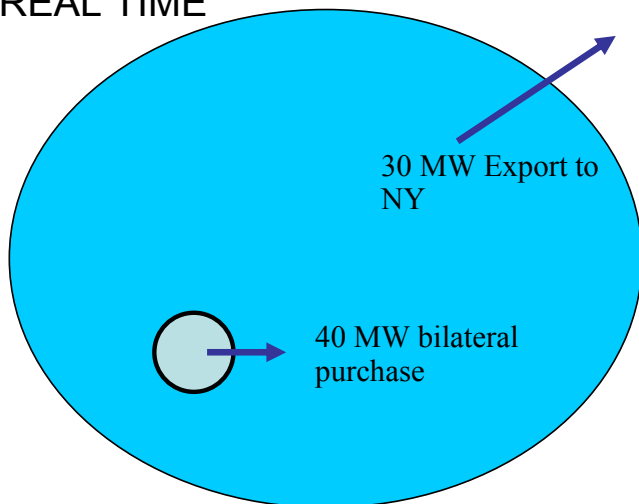
- To avoid an Operating Reserves charge, this participant would need 30 MW of “supply” in Real Time to offset the 30 MW of “supply” that was cleared in the DA market
- An additional 30 MW on the “demand” side (RT bilateral sale, for example) only serves to increase the excess demand in this scenario

DAY AHEAD



- Looks like 40 MW DA supply and 30 MW DA demand

REAL TIME



- Looks like 40 MW RT supply and 30 MW RT demand
- Operating Reserves: No Balancing O.R. charge (but 30 MW DA O.R. charge)
- *The market sees the same supply and demand in Real Time as in Day Ahead*

**\*\*Inc offers are “virtual,” and do not show up as RT supply**

Exhibit AJS-2

Introduction to Developing the Details of the Counter-Party Clarification Initiative



# Introduction to Developing the Details of the Counter-Party Clarification Initiative

Barry Spector

PJM ©2008





## Review Of Goals Of Counter-party Initiative

- Clarify that PJM will be the counterparty to all transactions, unless market participants expressly and mutually contract between themselves (or self schedule to themselves).
- Clarification will establish the necessary mutuality between PJM and market participants to lawfully enable netting and set-off of a market participant's debits and credits in a default situation, reducing risk of other members' exposure to defaults.
- Clarification will enable PJM to establish credit requirements that appropriately take account of netting and set-off rights, reducing credit that would otherwise be required to cover the risk that, following a market participant default, netting and set-off would not be allowed.



## Benefits of Initiative

- Clarity of counterparties provides certainty in bankruptcy contexts, reducing risks of default allocations to members.
- Clarity of counterparties enables PJM and its members to establish lower credit requirements.
- Current ambiguity of counterparties creates unnecessary uncertainty and lack of predictability in a variety of contexts (e.g. collection litigation).
- Elimination of member exposure for “non-pool” transactions.
- Clarity of “pool” vs. “non-pool” transactions reduces overstatement of pool activity and resulting over-allocations of defaults.



## Guiding Principles Regarding Transactions

- **Basic Principle:** Clarify that, with the exception of the below transactions, all transactions under the Tariff and Operating Agreement will have a newly-formed entity, PJMSettlement, as the counter-party.
  - **Exception One:** PJMSettlement will not be the counter-party to “self-scheduled” activity within a single entity.
  - **Exception Two:** PJMSettlement will not be the counter-party to bilateral transactions between market participants.
- **Transmission Principle:** While PJMSettlement will be the counter-party to all transmission service contracts under the Tariff, PJMSettlement will not take title to the energy or other products that a transmission customer simply transports using its transmission service.



## **General Principles**

- PJM will require credit to support only market activity where PJMSettlement is the counterparty (“pool transactions”).
- PJM will not obtain credit for bilateral transactions settled between the parties to the transaction outside the pool.
- PJM will not require credit for a participant’s self-scheduled activity within a single entity.



<b>“Pool” Transactions</b>	<b>Non-Pool Transactions</b>
PJM Settlement is counter-party	Bilateral or self-scheduled activity; products transported by a participant using its transmission service
PJM takes title or is otherwise “buyer” or “seller”	PJM not in chain of title
Activity counts for credit posting purposes	Activity not subject to credit requirements
Subject to netting and set-off	Not subject to netting and set-off
Activity counted for purposes of default allocations	Activity not counted for purposes of default allocations



**Transmission Service**

- PJM, as the counter-party, will purchase transmission service from the Transmission Owners to provide transmission service to all point-to-point and network transmission service customers.
- PJM, as the counter-party, will provide transmission service to all transmission service customers under the PJM Tariff.

**Transportation of Energy on Transmission Service**

- Energy deliveries self-scheduled using a market participant's transmission service (point-to-point or network) shall not involve any transfer of title or PJM becoming the counter-party to any energy transaction.
- Net schedules above the transmission customer's load shall be transactions with PJMSettlement as the counter-party.



- One component of transmission service charges is a congestion charge.
- Certain transmission customers are entitled to allocations of ARR.
  - The revenues obtained from holding ARRs are designed to offset a transmission customer's congestion charges.
  - Such ARR credits, *to the extent that they offset congestion charges*, are part and parcel of transmission service charges and do not involve a separate counterparty transaction with PJM.



- ARR may be “self scheduled” or converted into corresponding FTRs.
- Alternatively, ARR revenues can be used to purchase FTRs from PJM as the counterparty.
  - The “congestion credits” from FTRs are designed to offset a transmission customer’s congestion charges.
  - Such congestion credits from FTRs, *to the extent that they offset congestion charges*, are part and parcel of transmission service charges and do not involve a separate counterparty transaction with PJM.





- To the extent that congestion credits from FTRs exceed a customer's transmission service congestion charges, a counter-party FTR transaction with PJM for the net excess will be entered.
- Financial participants in the FTR markets, without transmission service and transmission congestion charges, by definition will have "excess" positions and therefore enter transactions with PJMSettlement with respect to their FTR trades.



## Day-Ahead and Real-time Transactions

- Day-Ahead and Real-Time: A market participant's counter-party transactions with PJMSettlement will be its net activity taking account of its activity in both the day-ahead and real-time markets, priced as indicated by the market clearing prices in these markets.



## Examples of Day-Ahead and Real-Time Activity Netting

### Example 1

- DA load bid (or DEC) of 50 MW clears at \$20
- RT load is 40 MW, and RT price is \$30
- A purchase transaction from PJMSettlement of 40 MW is entered, priced at \$ \$700 (50 MW priced at \$20 and -10 MW priced at \$30).

### Example 2

- DA load bid (or DEC) of 50 MW clears at \$20
- RT load is 60 MW, and RT price is \$30
- A purchase transaction from PJMSettlement of 60 MW is entered, priced at \$1300 (50 MW at \$20 and 10 MW at \$30)



## Examples of Day-Ahead and Real-Time Activity Netting

### Example 3

- DA generation offer (or INC) of 50 MW clears at \$20
- RT generation is 40 MW, and RT price is \$30
- A sale transaction to PJMSettlement of 40 MW is entered, priced at \$700 (50 MW at \$20 and -10 MW at \$30)

### Example 4

- DA INC of 50 MW by a virtual trader clears at \$20
- RT generation is 0 MW, and RT price is \$30
- A purchase transaction from PJMSettlement of 50 MW is entered, priced at \$10 (net of the sale of 50 MW at \$20 and the purchase of 50 MW at \$30)



- INCs and DECs by financial traders will create counter-party transactions with PJMSettlement because they will be in excess of the participant's real-time physical activity.

**Example:**

- 100 MW INC in DA market clears at \$20.
- This creates obligation to buy 100 MW in RT
- 100 MW purchase in RT at \$19.
- Participant has entered a purchase transaction with PJMSettlement for its net DA and RT activity, or 100 MW purchase, in this case at a price of -\$1 (price can be positive or negative, depending on DA and RT clearing prices).



## Reliability Pricing Model (RPM)

### General Principles

- Resources that clear in the RPM Auction will enter a contract with PJMSettlement as the counter-party to meet their RPM obligations under the Tariff (e.g. to have the capacity in place in the delivery year) at the clearing price in the auction.
- All LSEs shall have a contract with PJMSettlement as the counter-party to pay the applicable RPM charges under the Tariff in the delivery year.

### Exceptions

- In the RPM auction, a transmission customer may “self schedule” resources to cover its RPM obligations in the delivery year.
- A participant can obtain capacity bilaterally, and in the auction “self schedule” the resources to cover its RPM obligations in the delivery year.
- PJMSettlement not a counter-party to the capacity transactions in these “self schedule” situations, except to the extent of an LSE’s supply of resources in excess of its load obligations.
- PJM is not a counter-party to FRR supply.



## Other Ancillary Services

- Other ancillary services will follow similar principles to those described above.



## Internal Bilateral Energy Transactions

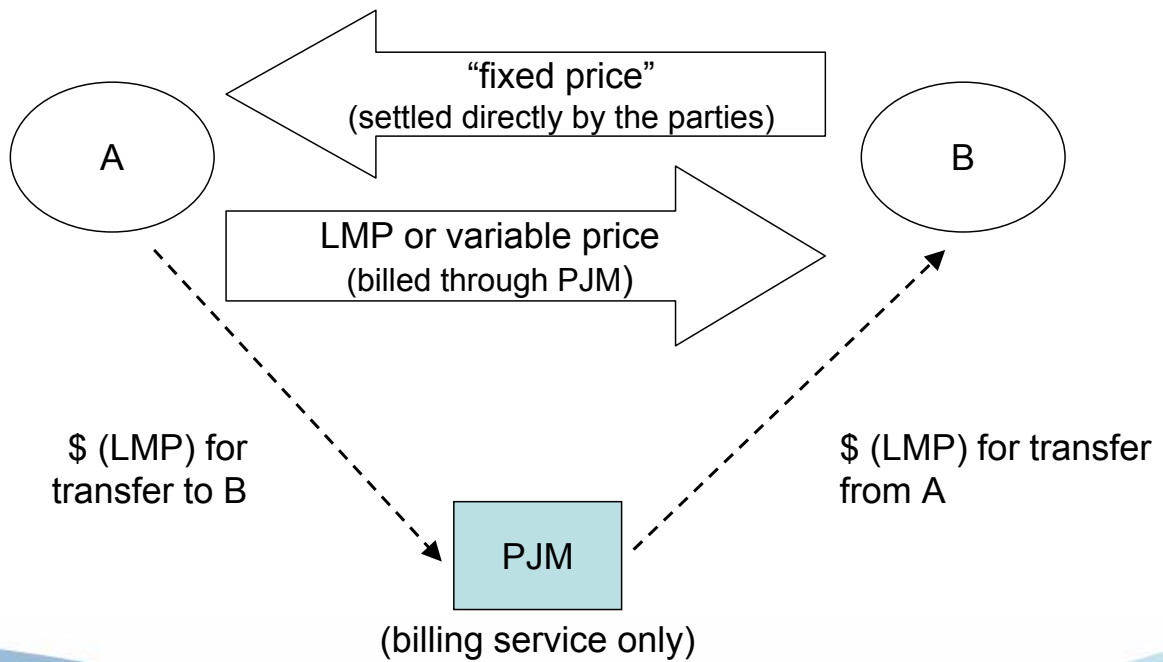
- eScheduled IBTs
  - Parties may continue to notify PJM of “internal bilateral” financial transactions via eSchedules.
  - Such transactions are simply financial “contracts for differences” or “swaps,” not physical transactions.
  - No transactions with PJM take place; PJM is not a counterparty.
  - As today, PJM will not bill or settle the direct financial payments between the IBT contracting parties.
  - As a service to market participants (not as a counterparty), PJM will provide a billing service for the portion of the swap transaction that is settled at LMP prices, if requested by the parties to the IBT via an eSchedule.
  - PJM will not pay the counterparty to the swap if the other party defaults.
  - PJM credit requirements not applicable. Payments that must be made to settle the swap will not require PJM credit. Similarly, revenues due to a party from the swap will not offset any other PJM credit requirements.





# Internal Bilateral Energy Transaction Example

## Western Hub IBT "fixed price" sale





## Next Steps if CRMSC Supports Continuation of the Counterparty Clarification Initiative

- Develop OA, Tariff, and RAA amendments to implement initiative.
- Evaluate necessary markets, billing and settlement systems changes.
- Consider corporate structure to pursue initiative (e.g. establishment of separate “PJMSettlement” company).
- Evaluate tax consequences, if any, to PJM.
- Bring documentation of foregoing back to CRMSC for consideration.

Exhibit AJS-3

Clarification of Internal Bilateral Transactions

### Clarification of Internal Bilateral Transactions

The following summarizes a clarification of the use of Internal Bilateral Transactions (“IBTs”).

- As today, parties to an IBT shall inform PJM of the IBT through eSchedules.
- For all IBTs scheduled through eSchedules, a transfer of title to the energy from the Seller to the Buyer shall occur at the location of the IBT.
  - Example 1: IBT between a generator (Seller) and an LSE (Buyer) at the generation bus. Title to the energy is transferred from the Seller to the Buyer at the Seller’s generation bus.
  - Example 2: IBT at Western Hub. Transfer of title to the energy from the Seller to the Buyer occurs at Western Hub.
  - In all cases, the IBT will be reflected in the net PJM Interchange of the Buyer and Seller.
- After the transfer of title to the energy under the IBT, all further transactions in the marketplace related to that energy are transactions conducted by the IBT Buyer.
  - Example 1: IBT between a generator (Seller) and an LSE (Buyer) at the generation bus. LSE Buyer would be responsible for the delivery of energy from the generation bus to its load (e.g via network transmission service).
  - Example 2: Western Hub IBT between Seller and an LSE (Buyer). LSE Buyer would be responsible for the delivery of energy from the Western Hub to its load (e.g via network transmission service).
  - Example 3: Western Hub IBT between Seller and a non-LSE Buyer. Buyer will take title to the energy at Western Hub and be a seller of the energy into the market at Western Hub.
- PJM will not require credit from Buyers with respect to IBT itself. (Seller and Buyer make all payment and collateral arrangements between themselves.) PJM will require credit from the IBT Buyer for any residual charges from the pool, including congestion associated with delivery from the IBT point of sale to the Buyer’s load.

- Consequences of Defaults
  - Seller Default
    - IBT Buyer shall guarantee and indemnify PJM and the PJM Members for the costs of IBT Seller's failure to deliver energy to IBT Buyer, because upon IBT Seller's failure, the pool will immediately source IBT Buyer's energy.
    - To the extent IBT Seller fails to pay for energy sourced from the pool for its IBT, PJM will call for IBT Buyer to (i) indemnify the pool and (ii) immediately post collateral to cover its expected going-forward market exposure without the IBT. To the extent of the indemnification, other PJM members will not be subject to any default allocations for IBT Seller's default in payment for energy to cover its IBT transactions.
    - If an IBT Seller is in default of its obligations under the Operating Agreement, PJM automatically will terminate all of that Seller's IBTs for performance after the date the Seller is declared in default.
  - Buyer Default
    - An IBT Buyer's failure to pay the Seller for IBT energy is a matter strictly between the Buyer and Seller and does not involve PJM or other market participants.
    - PJM will not pay IBT Seller for energy it transfers to the IBT Buyer notwithstanding any default by IBT Buyer that IBT Seller may claim.
    - IBT Seller may instruct PJM to terminate the IBT.

Attachment C

Affidavit of Former Commissioner William L. Massey

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

**DC ENERGY, LLC** ) **Docket No. EL12-\_\_\_\_\_**  
**DC ENERGY MID-ATLANTIC, LLC,** )  
**Complainants**

v.

**PJM INTERCONNECTION, L.L.C.,** )  
**Respondent**

**AFFIDAVIT OF WILLIAM L. MASSEY  
ON BEHALF OF DC ENERGY, LLC AND  
DC ENERGY MID-ATLANTIC, LLC**

**I. INTRODUCTION AND SUMMARY**

1. My name is William L. Massey. I have been a Partner at the law firm of Covington & Burling LLP since 2004. My office address is 1201 Pennsylvania Avenue NW, Washington DC 20004-2401.

2. I received a Juris Doctorate from the University of Arkansas School of Law in 1973, and an LL.M from the Georgetown University Law Center in 1985. In addition, I have been an Adjunct Professor of Law at the Georgetown University Law Center since 2007, and teach a course each year in the LL.M program titled Energy Trading and Market Regulation.

3. Between 1993 and 2003, I served as a Commissioner of the Federal Energy Regulatory Commission (“Commission” or “FERC”). During my tenure as Commissioner, the Commission took substantial steps to further the transition of the electric power industry to competition and establish the basic policies applicable to

organized wholesale electricity markets. For example, Order No. 888 was issued in 1996, and between the late 1990s and early 2000s, the Commission established and approved the formation of the nodal market design with day-ahead and real-time markets for the Regional Transmission Organizations (“RTOs”), including the PJM Interconnection, L.L.C. (“PJM”). Until I left the Commission in December 2003, I was an active and influential voice within the Commission in formulating electricity market policies, and in particular the policies applicable to the RTO markets. I cast more than 28,000 votes during my tenure as a Commissioner.

4. My current law practice includes a significant volume of advisory work on energy regulatory issues, especially Federal and state regulation of electricity generation, transmission and distribution, and trading by market participants in the electricity markets. In the course of my work, I have advised a range of electricity market participants including utilities, investment firms, independent power producers, customers, marketers and energy companies on a wide variety of energy matters including enforcement and investigations, market structure, competition policy, transmission, mergers and acquisitions, and legislative strategy.

5. The purpose of my testimony is to assess the public policy implications of PJM’s proposal to issue retroactive re-bills for balancing operating reserves associated with the deviations (“Deviation Charge”) retroactively created by unwinding what the Complainants saw as qualifying internal bilateral transactions (“the Transactions”) scheduled by DC Energy, LLC (“DC Energy”) and DC Energy Mid-Atlantic, LLC



(“DCE Mid-Atlantic” and together with DC Energy, the “Complainants”). PJM’s proposal is the subject of the Complaint that this affidavit accompanies. My understanding is that PJM has notified Complainants that they would be re-billed for Deviation Charges accruing from the Transactions between DC Energy and DCE Mid-Atlantic made between July 2009 and July 2011. My further understanding is that PJM’s reason for the retroactive re-billing is PJM’s conclusion that the Transactions do not qualify as internal bilateral transactions (“IBTs”) under PJM’s open access transmission tariff (“Tariff”) and Operating Agreement (“OA”)<sup>1</sup> and, accordingly, that the Complainants are responsible for Deviation Charges. Further, my understanding is that PJM alleges that the Transactions do not meet the Tariff requirement for IBTs because they were not for “the physical transfer of energy” or did not “contemplate the physical transfer of energy.”

6. After reviewing the materials and data available to me, and based further on the facts and assumptions listed in paragraph 7 below, for the reasons stated in greater detail herein I have come to the conclusion that it would be unsound public policy, as applied to the operations of the organized electricity markets, inequitable and contrary to existing FERC and federal judicial precedents, to retrospectively re-bill the Complainants for Deviation Charges arising out of the Transactions.

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<sup>1</sup> Schedule 1 of the Operating Agreement and the Appendix to Attachment K of the PJM Tariff are the same. This Affidavit refers to the Tariff’s Attachment K Appendix.

7. I have relied extensively on portions of the Affidavit of Dr. Andrew J. Stevens (the “Stevens Affidavit”) for certain facts, assumptions and analysis that support my conclusions. I have also relied upon certain materials provided to me by the Complainants’ counsel. In particular, I have relied upon the following facts and assumptions in preparing this affidavit.

- A. All materials, documents and information provided to me by the Complainants are true and correct in all material respects.
- B. Based upon statements in the Stevens Affidavit, particularly paragraphs 49 to 57 thereof, Complainants appear to have entered into the Transactions in good faith, believing that the Transactions at issue satisfied the “physical transfer” requirement of the Tariff.
- C. Complainants relied on PJM’s materials and on discussions with PJM officials, to assure themselves that the Transactions qualified as IBTs under the Tariff.

Among those materials and discussions were:

- (1) Discussions with PJM officials, and a follow-up letter, in 2006, prior to commencing the Transactions at issue, requesting PJM to identify any questions or concerns PJM might have regarding the IBTs. (PJM did not identify any concerns with DC Energy’s prospective Transactions.)
- (2) During an October 27, 2008, meeting of its Credit Risk Management Steering Committee (“CRMSC”), PJM presented CRMSC members with examples of the types of transactions that satisfy Tariff

requirements for IBTs. Based upon the statements in the Stevens Affidavit, particularly paragraphs 33 to 40, my understanding is that among the materials provided by PJM, example #3 is identical in form to the type of transactions engaged in by Complainants that are the subject of this Complaint.

- D. On December 2, 2008, PJM filed what it described as “clarifications” to “reduce credit risk exposure to PJM members” (“2008 Credit Risk Filing”). The clarifications focused on minimizing or eliminating PJM member liability for bilateral contract defaults. Based on paragraphs 51 and 52 of the Stevens Affidavit, I have assumed that PJM did not revise its procedures to prohibit, for the first time, parties to virtual transactions from using IBTs to provide for physical transfers of energy or to eliminate deviation charges.
- E. Based upon paragraph 57 of the Stevens Affidavit, it appears that before, during and after the date on which the Commission issued an order on the 2008 Credit Risk Filing, the Complainants continued to engage in the Transactions and PJM continued accepting the Complainants’ eSchedules for the Transactions.
- F. Based upon paragraph 67 of the Stevens Affidavit, it appears that in July 2011, more than five years after the Complainants’ first Transaction, PJM representatives contacted representatives for the Complainants by e-mail to discuss the Complainants’ use of the Transactions.

- G. Based on paragraph 33 of the Stevens Affidavit, it appears that during an August 3, 2011 meeting to discuss the Complainants' use of the Transactions, PJM officials articulated an example of what PJM deems an appropriate use of an IBT. This "appropriate IBT" appears to be identical in form to the Transactions between DC Energy and DCE Mid-Atlantic that are at issue here.
- H. Based on statements in the Stevens Affidavit, particularly paragraphs 26 and 27, it appears that Complainants have no way to revisit, unwind, modify or reverse their commercial decision to enter into, execute and consummate the Transactions without causing significant cash flow events.
- I. According to Paragraphs 6 and 7 of the Stevens Affidavit, Complainants' Transactions at issue caused convergence between prices in the PJM day-ahead and real-time markets, which in turn provided significant efficiency and reliability benefits to the PJM market. I have relied on paragraph 5 of the Stevens Affidavit to assume that as a general matter, the Complainants' virtual Transactions in conjunction with their IBTs restored missing flows in the day-ahead market. According to paragraph 5 of the Stevens Affidavit, the economic efficiency benefits arise because commitment and dispatch models have access to a wider and more cost-effective range of resources in the day-ahead market than the real-time market. The reliability benefit arises because, when day-ahead flows are aligned with real-time flows, fewer resources are required to be re-dispatched in real-time.

- J. Based upon statements in the Stevens Affidavit, in particular paragraphs 16 and 17, Complainants would not have entered into the Transactions at issue had they known that the Transactions would be subject to Deviation Charges. Given that the Deviation Charges would have been significantly greater than the economic gain that Complainants expected to earn on the Transactions, engaging in the Transactions would have made no economic sense for the Complainants.
- K. Based upon statements in the Stevens Affidavit, in particular paragraphs 20-22, 24 and 25, my understanding is that no other market participant was harmed by the Transactions at issue.

## II. ANALYSIS

8. For the reasons discussed below, I conclude that it would be unsound public policy, and contrary to Commission and federal judicial precedents, for the Commission to allow PJM to re-bill the Complainants for the Transactions at issue and assess Deviation Charges for these Transactions. If PJM is concerned that there are inefficiencies or other harms to the market or market participants involved in recognizing the type of transactions carried out by Complainants as IBTs, then PJM should provide clear, appropriate and specific guidance in its Tariff to be applied prospectively.
9. During my service as a Commissioner, the Commission adopted a firm policy of favoring competitive wholesale electricity markets based on the view that such markets would produce better results for customers than cost-based regulation. This is especially true with regard to organized markets like PJM which use day-ahead and real-time resource auctions based on locational marginal prices. To attract resources, promote

good behavior, and produce efficient outcomes, the rules of such markets must be clear and consistent. Uncertainty regarding the rules and their application will discourage entry, chill legitimate market activity that provides necessary liquidity to the markets, and dampen market participants' creativity in striving for efficiency gains. Market participants must be able to rely on the posted market rules to guide their behavior. Based on my experience as a Commissioner, it is clear to me that this is a primary reason why the Commission devotes so much time and attention to getting the rules right in each organized market.

10. In this case, PJM's tariff rules regarding IBTs are somewhat ambiguous. While the Tariff requires that an IBT "be for the physical transfer of energy" or "contemplate the physical transfer of energy," an electronic search of the Tariff and the OA indicates that neither of those phrases is defined further in either the Tariff or the OA. Given this absence of further definition of these key phrases in the Tariff, it is reasonable for market participants to rely on communications with RTO senior executives or materials issued by the RTO as market administrator for guidance in interpreting the Tariff.

11. In this case, according to the Stevens Affidavit, Complainants did rely on such communications and interpretive materials and communicated with PJM staff prior to commencing the transactions at issue to ensure that the transactions complied with the Tariff. In addition, according to the Stevens Affidavit, PJM materials provided to market participants during stakeholder meetings indicate that PJM deemed transactions identical in form to the IBTs at issue acceptable as IBTs.

12. The Tariff-compliant IBT (the “PJM Example IBT” as defined in paragraph 33 of the Stevens Affidavit) that PJM provided to Complainants appears to be identical in form to the Transactions at issue. According to paragraph 38 of the Stevens Affidavit, the PJM Example IBT involves the placement of virtual load and supply bids in the day-ahead market by the generator and the load entity respectively in the opposite form of their expected real-time activity. This results in divergence between the day-ahead and the real-time markets. The deviations in real-time are offset by the INC and DEC transactions for each counterparty, thus showing that PJM does permit the netting of INC and DEC transactions through the use of a real-time IBT.

13. According to paragraph 39 of the Stevens Affidavit, the Complainants’ Transactions were identical in form to the structure of this PJM Example IBT, save for the added benefit that the Transactions resulted in price convergence, discussed at paragraphs 6 and 7 of the Stevens Affidavit. This conclusion leads to one of two possibilities - (i) either the Transactions, like the PJM Example IBT, were Tariff-compliant or, (ii) if PJM believed that the Transactions were not Tariff-compliant despite the striking resemblance between the Transactions and the PJM Example IBT, then the Tariff is ambiguous on the question of which IBTs are Tariff-compliant.

14. Complainants therefore entered into and consummated the Transactions described in this Complaint in reasonable reliance on their communications with PJM officials and on PJM’s materials. According to paragraphs 16 and 17 of the Stevens Affidavit, Complainants would never have entered into these Transactions if the Tariff, PJM

officials, PJM materials or PJM bills had indicated that they would not qualify as IBTs and Deviation Charges would apply. According to paragraphs 26 and 27 of the Stevens' Affidavit, Complainants now have no way to revisit, unwind, modify or reverse their commercial decision to enter into, execute and consummate the Transactions without causing significant cash flow events and substantial financial harm. Given these circumstances, allowing PJM to re-bill the Transactions at issue and assess Deviation Charges against Complainants would be unsound public policy. Complainants engaged in reasonable steps to assure that their transactions would qualify as IBTs under the Tariff. Re-billing now would introduce uncertainty into the PJM market, especially regarding IBTs, and dampen market participants' creativity in structuring efficiency-enhancing transactions. A transparent, ordered and consistent market requires that participants must be able to rely on the Tariff and, where there may be some ambiguity, other PJM materials to guide their behavior.

15. The Commission's precedents are consistent with the position that market participants are entitled to rely on an RTO's materials interpreting its Tariff. The Commission has unequivocally recognized that "as a general matter, an RTO should be considered a credible source when it comes to an accurate interpretation of its own tariff." (*Midwest Independent Transmission System Operator, Inc.*, 115 FERC ¶ 61,108, *order on reh'g*, 117 FERC ¶ 61,113 at P 58 (2006), citing *PPL EnergyPlus, LLC v. New York Independent System Operator, Inc.*, 115 FERC ¶ 61,383 at P 29 (2006)). In the instance when it made that observation, FERC was confronted with a situation where



certain Business Practice Manuals used by the Midwest Independent Transmission System Operator (“MISO”) had provided an interpretation of MISO’s tariff that was at odds with what the Commission determined to be the filed rate.

16. The Commission has held that market participants may generally rely on materials and publications provided by an RTO. For example, in *PPL EnergyPlus, LLC v. New York Independent System Operator Inc.* (115 FERC ¶ 61,383 (2006)), the Commission held that the complainant was entitled to rely on the statements made by the New York Independent System Operator (“NYISO”) in a “non-technical newsletter” published for market participants by NYISO. Specifically, the Commission found that it was reasonable for the complainant to “rely on NYISO’s own statements, submitted in a newsletter that it publishes, as to the NYISO’s own interpretation of how [the relevant provision] operates.” FERC went on to note that

“[i]t is unfair to market participants to assume that interpretations made by NYISO in its own publications...cannot be regarded as coming from a credible source. When publishing informational documents for its market participants, NYISO has a responsibility to ensure that these documents are consistent with the Services Tariff and procedures.” (*PPL EnergyPlus*, 115 FERC ¶ 61,383 at P 29).

17. In this case, the Complainants are confronted with a situation similar to the complainants in *PPL EnergyPlus*. PJM’s materials describing certain transactions are clearly of a technical nature, compared with the NYISO newsletter at issue in *PPL EnergyPlus*, and are intended to be interpreted by market participants for use in their transactions. They are certainly a credible source of guidance. Accordingly, the Commission’s precedents indicate that, in structuring and entering into the Transactions

at issue, the Complainants may rely on PJM's materials as a credible source of PJM's interpretations of its own Tariff.

18. The most significant and damaging policy impact of allowing PJM to re-bill the Transactions at issue is the signal that, when the Tariff is subject to more than one reasonable interpretation, market participants cannot rely on PJM's materials providing guidance on the Tariff.

19. There are, however, additional factors I have considered in preparing this affidavit that should also be considered by the Commission in determining whether to allow PJM to re-bill the Complainants.

20. **First**, the transactions actually furthered a clear Commission policy objective: price convergence. FERC has noted the many benefits of convergence bidding on several occasions, noting that virtual bidding improves market performance and reduces the exercise of market power. See, e.g., *California Indep. Sys. Operator Corp.*, 130 FERC ¶ 61,122 at P 30 (2010) (discussing the benefits of convergence bidding (CAISO's term for virtual bidding)); *California Indep. Sys. Operator Corp.*, 130 FERC ¶ 61,122 at P 75 (2005) (same); *Ameren Servs. Co. v. Midwest Indep. Sys. Operator, Inc.*, 125 FERC ¶ 61,161 at P 116 (2008) (stating that "virtual transactions can provide benefits to Midwest ISO energy markets by reducing day-ahead market prices under certain circumstances"), *order on reh'g*, 127 FERC 61,121 at P 45 (2009) ("one of the principal benefits of virtual trading is day-ahead and real-time price convergence").

21. **Second**, according to paragraph 20 of the Stevens Affidavit, no market participant was harmed by the Transactions and, indeed, based upon the statements in the Stevens Affidavit, particularly paragraphs 20-22, my understanding is that the Transactions resulted in more efficient commitment of resources and decreased operating reserves costs.

22. **Third**, re-billing the Transactions at issue would be discriminatory. Transactions that were identical in form to the Transactions at issue are considered to be IBTs and are not assessed for Deviation Charges. Relying on the analysis in the Stevens Affidavit: (a) the Transactions either have the same effect on the system as the non-controversial transactions, or (b) the Transactions produce efficiency gains and cost reductions in contrast to the non-controversial transactions, and (c) in no event do the Transactions at issue produce greater system costs than the non-controversial transactions.

23. **Finally**, re-billing the Transactions would be unfair. Market participants benefited from the price convergence caused by the Transactions, but had the Complainants known in advance that operating reserves charges would have applied to these transactions, DC Energy and DCE Mid-Atlantic would not have entered into them and would not have paid any operating reserves charges. Market participants, none of whom were harmed by the Complainants' actions, will therefore receive an entirely unearned and undeserved windfall in the form of the Deviation Charges.

24. Even assuming there is a Tariff violation, which the Complainants vigorously dispute, applicable Commission and judicial precedents limit the award of retroactive

relief when certain circumstances are present, as they are here. For example, retrospective relief is not appropriate if the end result of a tariff violation is not “unjust, unreasonable, or unduly discriminatory.” (*Louisiana Public Service Commission v. FERC*, 174 F.3d 218, 223 (D.C. Cir. 1999)). The same decision, *Louisiana Public Service Commission*, has recognized a further, efficiency-enhancing reason for not awarding retrospective relief. In that decision, the D.C. Circuit upheld the Commission’s discretion not to order refunds for a tariff violation in a case in which “the Commission thought it inequitable to order a refund when the predicate tariff violation had conferred *benefits* on the system.” *Id.* at 225 (emphasis in original). In subsequent orders, the Commission acknowledged the validity and importance of each of these limitations, noting that there is nothing inequitable in avoiding the retrospective application of certain charges where parties have “engaged in virtual transactions with the reasonable expectation” that such charges would not apply. (*Midwest Independent Transmission System Operator, Inc.*, 117 FERC ¶ 61,113 at P 94).

25. In addition, retrospective relief is not in the public interest and should not be permitted (i) when such relief would create substantial uncertainty in the markets and would undermine confidence in them, and (ii) where customers effectively cannot revisit their economic decisions. For instance, in *PPL Energy Plus*, the Commission found that the NYISO had violated its tariff by improperly allocating certain available import capacity rights. However, in fashioning its remedy for such violation, the Commission expressly declined complainant’s requests for retroactive relief. Instead, FERC held that

it had to balance the goals of allowing relief based upon the nature of the violation and redressing the complainant's injury with the competing goal of maintaining confidence in markets. In particular, the Commission noted that "[t]he entity that benefited from the tariff violation...reasonably made arrangements for the capability period it was awarded and would be financially harmed by a re-allocation of its capacity import rights." (*PPL EnergyPlus*, 115 FERC 61,383 at 30 (2006)).

26. Significantly, in *PPL EnergyPlus*, FERC expressly re-affirmed its statement that "'in balancing the equities,' refunds for a tariff violation should not be required". (*PPL EnergyPlus* at 30 n.19. See also *New York Independent System Operator, Inc.*, 110 FERC ¶ 61,244 at P 70, *order on reh'g*, 113 FERC ¶ 61,155 (2005); *New York Independent System Operator, Inc.*, 97 FERC ¶ 61,154 at 61,673-74 (2001)).

27. Each of the factors, precedents and principles I have discussed in this Affidavit strongly indicates that retroactive re-billing should not be permitted in DC Energy's case. **First**, allowing PJM to retrospectively re-bill the Complainants would create substantial uncertainty and undermine faith in markets. Ordering the retrospective application of Deviation Charges, thus potentially rendering uneconomic Complainants' Transactions as far back as 2009, would completely destroy the reasonable expectations of Complainants, who have operated since 2006 on the understanding that the Transactions were Tariff-compliant. More importantly, however, such retrospective re-billing would have a broader chilling effect on market activities generally since such re-billing would deter market participants who intended to enter into other virtual transactions which resemble

the Transactions at issue. Such market participants could never be confident that they would not be similarly re-billed retrospectively by PJM at some future date. The net effect would be the large-scale introduction of uncertainty among the participants in the day-ahead and real-time markets, the chilling of innovation in financial transactions and the consequent erosion of market confidence.

28. **Second**, such retrospective re-billing would also be unfair and inequitable because the Complainants, and other market participants who have entered into transactions similar to the Transactions at issue, effectively cannot revisit their economic decisions. The Complainants have already entered into contractual commitments and, according to paragraphs 49 and 50 of the Stevens Affidavit, have had more than five years of acquiescence from PJM while they did so. The fact that PJM unquestioningly accepted Complainants' eSchedules until July 2011 and never applied the Deviation Charges to any bills sent to the Complainants adds to the reasonableness of the Complainants' belief that their IBTs were compliant with the Tariff.

29. While the Complainants can shape their future conduct to adhere to the terms of the Tariff and other applicable regulations, it would be unfair to penalize Complainants for transactions that they no longer have the capacity to change and which they entered into in good faith and in reasonable belief of legality and Tariff-compliance. Imposing a retroactive penalty would fly in the face of FERC's established practice of avoiding retrospective penalties where parties "cannot retroactively change their behavior in

response to penalties that they now understand to apply.” (*Cal. Indep. Sys. Operator, Inc.*, 84 FERC ¶ 61,121 at 61,664 (1998)).

30. **Third**, the Transactions at issue had appreciably beneficial consequences for market efficiency in general and for the Commission-approved objective of price-convergence in particular. These systemic benefits of the Transactions make them particularly unsuitable targets for retrospective re-billing. As the D.C. Circuit approvingly noted in *Louisiana Public Service Commission*, the Commission has previously considered it inequitable to order a refund where a tariff violation (which the Complainants do not believe has occurred here) confers benefits on the system. (*Louisiana Public Service Commission*, 174 F.3d at 223).

31. **Fourth**, the Commission has consistently taken the view that retroactive relief is essentially an equitable remedy, strongly underpinned by a desire to provide restitution. As a corollary, where the alleged violator’s conduct is not inequitable, it would be inappropriate to provide equitable relief. No market participant was harmed by the Transactions at issue - instead, market participants have shared in the systemic benefits created by the Transactions. As the Commission has noted, there is nothing inequitable in avoiding the retrospective application of certain charges where parties “have engaged in virtual transactions with the reasonable expectation” that such charges would not apply. (*Midwest Independent Transmission System Operator, Inc.*, 117 FERC ¶ 61,113 at 30). This is manifestly the case with the Complainants. Complainants have consistently acted on the reasonable expectation that the Transactions were Tariff compliant. As soon

as PJM cast doubt on whether the Complainants' Transactions were compliant with the Tariff, the Complainants ceased engaging in such Transactions. Given these circumstances, it is the imposition of retroactive relief on the Complainants that would itself be inequitable.

32. **Fifth**, the D.C. Circuit has already adopted, and the Commission has clearly endorsed, the position that retrospective relief is not appropriate if the end result of a tariff violation is not "unjust, unreasonable or unduly discriminatory." (*Louisiana Public Service Commission*, 174 F.3d at 223, cited by FERC in *Midwest Independent Transmission System Operator, Inc.*, 117 FERC ¶ 61,113 at 94 n.70). In this case, it would, in fact, be discriminatory to allow retrospective relief against the Complainants. If the transactions were to be re-billed, the other PJM market participants would receive the Deviation Charges paid for by the Complainants, even though these other market participants have already received the benefits of the convergence provided by the Transactions. Nothing in FERC's jurisprudence would justify such discriminatory treatment of the Complainants.

33. In reviewing the equities present in this case, the Commission's Revenue Sufficiency Guarantee Order ("RSG Order") is instructive. (*Midwest Independent Transmission System Operator, Inc.*, 115 FERC ¶ 61,108, order on reh'g, 117 FERC ¶ 61,113 (2006)). In the RSG Order, FERC had required MISO to make refunds to market participants for incorrect applications of the provisions of MISO's real-time revenue sufficiency guarantee ("RSG"). The Commission recognized that MISO could charge



parties engaged in virtual transactions an RSG charge in order to ensure sufficient revenue to compensate or make-whole generators committed and dispatched by MISO. However, although the Commission concluded that RSG charges applied to virtual transactions, it expressly decided not to apply such RSG charges to virtual transactions retroactively, for equitable reasons similar to those I have identified.

34. Finally, I think it is important to point out that granting retroactive relief is an award that is not lightly made. It is generally accepted that FERC enjoys broad remedial discretion, “even in the face of an undoubted statutory violation, unless the statute itself mandates a particular remedy.” (*Connecticut Valley Electronic Co. v. FERC*, 208 F.3d 1037, 1044 (D.C. Cir. 2000), (citing *Towns of Concord, Norwood & Wellesley v. FERC*, 955 F.2d 67, 72-73, 76 n.8 (D.C. Cir. 1992)) As the Court of Appeals for the D.C. Circuit has previously stated, “the breadth of agency discretion is...at [its] zenith when the action assailed relates primarily not to the issue of ascertaining whether conduct violates the statute, or regulations, but rather to the fashioning of... remedies.” (*Niagara Mohawk Power Corp. v. FPC*, 379 F.2d 153, 159 (D.C. Cir. 1967); *Louisiana Public Service Commission v. FERC*, 174 F.3d 218, 225 (D.C. Cir. 1999)).

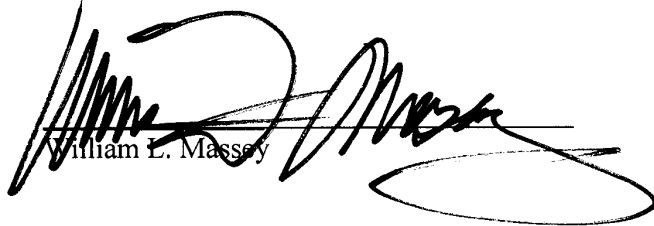
35. Even while operating in the zone of such broad remedial discretion, however, FERC and the Federal courts have recognized limitations upon the discretion to grant retrospective relief generally. Describing the D.C. Circuit’s observation in *Towns of Concord*, the Commission stated that retroactive relief in the form of customer refunds is “a form of equitable relief, akin to restitution, and the general rule is that agencies should

order restitution only when money was obtained in such circumstances that the possessor will give offense to equity and good conscience if permitted to retain it.” (*Midwest Independent Transmission System Operator, Inc.*, 117 FERC ¶ 61,113 at P 94, citing *Towns of Concord*, 955 F.2d at 75.) In my opinion, the equities in this case favor the Complainants, and to require that the Complainants be retrospectively re-billed would chill legitimate market activity and would be inequitable, discriminatory and not in the public interest.

36. This concludes my affidavit.

**AFFIDAVIT**

William L. Massey, being duly sworn, deposes and states that the contents of the foregoing Affidavit of William L. Massey are true and accurate to the best of his knowledge, information and belief.



William L. Massey

For and on behalf of  
DC Energy, LLC and  
DC Energy Mid-Atlantic, LLC

Subscribed and sworn to me this 24<sup>th</sup> day of October, 2011:



\_\_\_\_\_  
Notary Public

Printed Name: Maria P. Chavez

My commission expires: \_\_\_\_\_  
**MARIA P. CHAVEZ**  
Notary Public, District of Columbia  
My Commission Expires January 14, 2015

Attachment D

Affidavit of Dr. Ronald R. McNamara

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

<b>DC Energy, LLC and</b>	)	
<b>DC Energy Mid-Atlantic, LLC</b>	)	
<b>Complainants</b>	)	
	)	
<b>v.</b>	)	<b>Docket No. EL12- _____ -000</b>
	)	
<b>PJM Interconnection, L.L.C.</b>	)	
<b>Respondent.</b>	)	

**AFFIDAVIT OF DR. RONALD R. MCNAMARA**

Dr. Ronald R. McNamara, having been duly sworn, deposes as follows:

**QUALIFICATION AND PURPOSE**

1. My name is Ronald R. McNamara. I am the Managing Director of First Principles Economics, LLC. My business address is 5230 Weatherstone Circle, Sugar Land, TX 77479. I am an economist specializing in energy markets with a particular emphasis on the design, implementation and operation of de-regulated electricity markets. I have been involved in the energy industry for over 20 years in the public and private sectors, as well as performing academic research on energy markets. In the United States, I have provided expert witness testimony on electricity market design and operation before legislative hearings and utility commissions in Illinois, Kentucky, Michigan, North Dakota, Ohio, Oklahoma, Texas, Wisconsin, and the Federal Energy Regulatory Commission. Internationally, I have provided expert witness testimony on electricity market design and operation in hearings in New Zealand and Australia.
  
2. I graduated from the University of California, Irvine with a B.A. degree in Economics and a B.A. degree in Social Ecology in 1979. I received an M.A. degree in Economics from the University of Rhode Island in 1983. I received an M.A. degree and a Ph.D. in Economics from the University of California, Davis in 1991 and 1993 respectively. From 1991 to 1993 I was an Assistant Professor of Economics at Bentley College in Waltham, Massachusetts and a Visiting Assistant Professor at Northeastern University in Boston, Massachusetts. From 1993 to 1997 I was a Lecturer in Economics at the University of Auckland (New Zealand). From 1995 to 1998, as the Manager of Research and Development for the Electricity Market Company Ltd, and as a Senior Advisor for Putnam, Hayes and Bartlett Asia-Pacific, I had significant involvement in designing,

implementing and operating the electricity market in New Zealand; which was the first wholesale electricity market in the world to be based on locational marginal pricing. From 1998 to 2000 I was a Director at the Queensland Competition Authority (Australia) with regulatory responsibility for electricity and natural gas retailing and distribution networks as well as the thirteen trading ports in Queensland and then Manager of Regulatory Affairs at Duke Energy Australia. From 2000 to 2003 I worked at Enron and then American Electric Power. From 2003 to 2006 I was the Vice President of Market Management and Chief Economist for the Midwest Independent System Operator. At the Midwest ISO I was responsible for the Day Ahead Market, the Financial Transmission Rights Market, the production of locational marginal prices, transmission and energy market settlements, market analysis and regulatory policy as it pertained to the electricity market. From 2007 to 2009 I was an Associate Director at Bear Energy and then Managing Director of Fundamentals at Saracen Energy Advisors, LP. In 2009 I founded and became Managing Director of First Principles Economics, LLC an economic consulting firm that provides economic and strategic advice and analysis to domestic and international clients including Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs), electricity market participants, law firms, and government agencies.

3. My affidavit has the following primary objectives:
- Provide support for the Companies' October 26, 2011 complaint filed in response to the decision by PJM, communicated to the Companies on October 20, 2011, to unwind the Companies' internal bilateral transactions ("IBTs") dating as far back as July 2009, require energy resettlement of those transactions and retroactively re-bill the Companies for operating balancing reserves or Deviation charges.
  - Address several fundamental issues raised by PJM's decision to unwind and re-bill ("PJM's Proposal"), including
    - (a) Summarize and discuss the predominant methods used by market participants to transact in these markets.
    - (b) Discuss what constitutes a "physical" transaction in the PJM-administered markets.
    - (c) Describe the Companies' commercial rationale and strategy for the use of IBTs in the context of the markets administered by PJM and the strategies of other market participants and how it compares to the use of IBTs by other PJM market participants.
    - (d) Evaluate the effect of these transactions on the outcomes of the PJM Day Ahead and Real Time Markets including the outcomes on other market participants.

**DESCRIBE THE GENERAL METHODOLOGIES BY WHICH PARTICIPANTS TRANSACT TO BUY AND SELL POWER IN THESE MARKETS.**

4. Transacting in any market is far more complex than the typical textbook description. At the highest level of abstraction we can delineate sales/purchases of power as being accomplished through; (1) the spot market, (2) bilateral contracts or (3) vertical integration. The choice of which construct to use is not only dependent on a number of factors but also varies according to the type of transaction as well as the specific and idiosyncratic set of transaction costs for each particular transaction and participant. At any point in time, a market participant is likely to make use of all three methodologies. Regardless of the chosen methodology, transacting for electricity necessarily involves addressing the issue of “deliverability.” In this regard electricity is truly a unique commodity. “Deliverability” refers to how and by whom the risk associated with getting the commodity from one point (e.g., the point of generation or sale) to another point (e.g., the point of consumption or purchase) will be managed.
5. From a theoretical perspective electricity is a commodity that lends itself to a significant level of bilateral contracting. Volatile short term prices, coupled with high capital costs for producers and relatively low, short-term demand elasticity for consumers, logically implies that physical producers and consumers have incentives to reduce the price risk associated with the spot market. In 2007 the PJM Market Monitor reported that:

As a general matter, participants in the PJM Real-Time Energy Market can use their own generation to meet load, to sell in the bilateral market or to sell in the spot market in any hour. Participants can both buy and sell via bilateral contracts and buy and sell in the spot market in any hour. If a participant has positive net bilateral transactions in an hour, it is buying energy through bilateral contracts (bilateral purchase). If a participant has negative net bilateral transactions in an hour, it is selling energy through bilateral contracts (bilateral sale). If a participant has positive net spot transactions in an hour, it is buying energy from the spot market (spot purchase). If a participant has negative net spot transactions in an hour, it is selling energy to the spot market (spot sale).

Real-time load is served by a combination of self-supply, bilateral market purchases and spot market purchases. From the perspective of a single PJM billing organization that serves load, its load could be supplied by any combination of its own generation, net bilateral market purchases and net spot market purchases. PJM billing organizations represent customers having billing accounts with PJM. Supply from its own generation (self-supply) means that the organization is generating power from plants that it owns at the same time that it is meeting load. Supply from bilateral purchases means that the organization is purchasing power under bilateral contracts at the same time that it is meeting load. Supply from spot market purchases means that the organization is not generating enough

power from owned plants and/or not purchasing enough power under bilateral contracts to meet load at a defined time and, therefore, is purchasing the required balance from the spot market. Real-Time Energy Market transactions are referred to as spot market activity because they are transactions made in a short-term market.

The PJM system's reliance on self-supply, bilateral contracts and spot purchases to meet real-time load is calculated by summing across all PJM billing organizations that serve load in the Real-Time Energy Market for each hour... **For 2007, 95.9 percent of real-time load was supplied by bilateral contract, 3.9 percent by spot market purchase and 0.2 percent by self-supply.** Compared with 2006, reliance on bilateral contracts increased by 3.1 percentage points; reliance on spot supply decreased by 2.3 percentage points and reliance on self-supply decreased by 0.8 percentage points in 2007.<sup>1</sup>

6. That there is a high level of "bilateral" contracting in the market is consistent with what economic theory would predict. There is in fact, a standard structure, as I will detail below.

**DESCRIBE THE CONTRACTUAL ARRANGEMENT BY WHICH PARTICIPANTS EXECUTE BILATERAL TRANSACTIONS.**

7. Based on my experience, I know that the predominant form of bilateral contracting in PJM is accomplished through either the Edison Electric Institute (EEI) Master Power Purchase and Sale Agreement or, as is the case with Companies' bilateral transactions, The International Swaps and Derivative Association (ISDA) Master Agreement Power Annex (available at [http://www.isda.org/c\\_and\\_a/comm\\_der.html](http://www.isda.org/c_and_a/comm_der.html) (Power - North America)). Standardized contracts such as these reduce the transaction costs of contracting and, as a result, improve market outcomes. Part 6(b) (i)-(ii) of the Power Annex for North America to the ISDA Master Agreement provides the following language with respect to physical flow of power (emphasis added):

**(b) Obligations and Deliveries**

- (i) Seller's and Buyer's Obligations. With respect to each Power Transaction, Seller shall sell and deliver, or cause to be delivered, the Quantity of the Product to the Delivery Point. Buyer shall purchase and receive, or cause to be received, the Quantity of the Product at the**

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<sup>1</sup>PJM Market Monitoring Unit, 2007 State of the Market Report. March 11, 2008, pages 89-90. These percentages have been widely quoted and accepted in the industry, see for example: Chandley, John and William W. Hogan. Electricity Market Reform: APPA's Journey Down the Wrong Path, April 16, 2009, p. 10. Shanker, Roy J., "Market Misperceptions and Regrets About Past Business Decisions," March 3, 2009. P. 6.



**Delivery Point and shall pay Seller the Contract Price.** However, with respect to options, the obligations set forth in the preceding two sentences shall only arise if the option is exercised in accordance with its terms. Seller shall be responsible for any costs or charges imposed on or associated with the Product or its delivery of the Product up to the Delivery Point. Buyer shall be responsible for any costs or charges imposed on or associated with the Product or its receipt at and from the Delivery Point.

(ii) **Transmission and Scheduling.** Seller shall arrange and be responsible for transmission service to the Delivery Point and shall Schedule or arrange for Scheduling services with its Transmission Providers, as specified by the parties in the Power Transactions, or in the absence thereof, in accordance with the practice of Transmission Providers, to deliver the Product to the Delivery Point. Buyer shall arrange and be responsible for transmission service at and from the Delivery Point and shall Schedule or arrange for Scheduling services with its Transmission Providers to receive the Product at the Delivery Point.

And from Part 6(c) (i)-(ii):

(c) **Remedies for Failure to Deliver or Receive; Limitation on Condition Precedent**

(i) **Seller Failure.** If Seller fails to Schedule and/or deliver all or part of the Product pursuant to a Power Transaction, and such failure is not excused under the terms of the Product or by Buyer's failure to perform, then Seller shall pay Buyer on the date payment would otherwise be due in respect of the month in which the failure occurred or, if "Accelerated Payment of Damages" is specified in clause (j), within five (5) Local Business Days of invoice receipt, an amount for such deficiency equal to the positive difference, if any, obtained by subtracting the Contract Price from the Replacement Price (as defined below). The invoice for such amount shall include a written statement explaining in reasonable detail the calculation of such amount.

(ii) **Buyer Failure.** If Buyer fails to Schedule and/or receive all or part of the Product pursuant to a Power Transaction and such failure is not excused under the terms of the Product or by Seller's failure to perform, then Buyer shall pay Seller on the date payment would otherwise be due in respect of the month in which the failure occurred or, if "Accelerated Payment of Damages" is specified in clause (j), within five (5) Local Business Days of invoice receipt, an amount for such deficiency equal to the positive difference, if any, obtained by subtracting the Sales Price (as defined below) from the Contract Price. The invoice for such amount shall include a written statement explaining in reasonable detail the calculation of such amount.

Lastly, the Power Annex defines “Product” and “Quantity” as:

“Product” means electric capacity, energy or other product(s) related thereto specified in a Power Transaction by reference to a Product listed in Schedule P, which is incorporated herein, or as otherwise specified by the parties in the Power Transaction.

“Quantity” means the quantity of the Product that Seller agrees to make available or sell and deliver, or cause to be delivered, to Buyer, and that Buyer agrees to purchase and receive, or cause to be received, from Seller, as specified in a Power Transaction.

The EEI Master Power Purchase and Sale Agreement replicates the language used by the ISDA Power Annex verbatim.

8. We can assume that when the PJM Market Monitor reported in 2007 that 96% of the electricity supplied for Real Time was supplied under bilateral contract, that the vast majority of the power transacted under those bilateral contracts was through either the ISDA or EEI Master Agreements. In other words, the majority of the power transacted under bilateral contracts in PJM is done so using the exact same structure as the Companies’ contract.
9. Expanding upon the similarity, as noted in the contract language above, the manner in which PJM sellers fulfill bilateral contractual physical obligations is through the act of *scheduling* power (i.e. “cause to be delivered”) in the Real Time Market. The seller establishes a specific ISDA/EEI Master Agreement bilateral contract as physical (or subject to physical settlement) by setting forth specific scheduling terms and conditions in the confirmation – and then schedules the power via the PJM eSchedule tool. This is exactly the mechanism by which the Companies fulfilled their physical delivery obligations (i.e., via eSchedule). Hence not only do the Companies use the exact same contract structure as the rest of the market; they also use the same physical delivery mechanism.

**HOW HAS THE IMPLEMENTATION OF THE PJM DAY AHEAD AND REAL TIME MARKETS CHANGED THE WAY IN WHICH PARTICIPANTS TRANSACT AND PHYSICAL DELIVERABILITY IS ACCOMPLISHED?**

10. First, and most obvious, is that by implementing a real time or spot market participants are able to transact spot power at transparent market-determined prices. Second, I mentioned in my previous answer that transacting for electricity necessarily involves addressing the issue of deliverability. Prior to the implementation of RTO-administered Day Ahead and Real Time Markets, transacting in the industry was based on the assumption that transmission capacity could be quantified with enough precision to underpin the policy directive of open access. The idea was that, just like with natural gas pipelines, the capacity of the transmission system could be determined and then allocated to the participants who would then acquire the amount of “wire” capacity they needed to bring about

the delivery of electricity that was under contract. This structure, i.e. determining transmission capacity and then selling/buying the capacity “rights,” provided the necessary infrastructure counterparties needed to fulfill their obligations under bilateral contracts. In general, a seller/buyer under the terms of the contract would (1) acquire the desired transmission rights, i.e. the transmission path(s) from the generation plant(s) or contract supply point to the specific consumption location(s) or contract purchase point and then (2) schedule their hourly/daily usage of the transmission capacity with the Transmission Provider. There are two fundamental and fatal problems with this structure. First, Transmission capacity is not static. For a given network configuration and set of injection points, the amount of available transmission capacity varies depending on the location and quantity of load which means the *ex ante* determination of supply and load will only be “correct” by coincidence. Second, the speed with which the system must be coordinated to maintain reliability does not allow participants to trade/exchange their transmission rights which means the transmission provider will have to resort to command-and-control<sup>2</sup> to keep the lights on. While this structure, i.e. identifying/allocating/scheduling transmission capacity, did address the issue of deliverability, it was (and still is in those areas without centralized dispatch) highly inefficient.

11. In the PJM-administered markets, PJM manages the deliverability risk through the dispatch function. The coordination of real time power flows involves the second-to-second calculation and subsequent allocation of transmission capacity. This represents a fundamental change in the transaction paradigm as compared to what existed prior to the implementation of locational marginal pricing through centralized markets. Market participants, for transactions within an RTO, no longer manage physical deliverability risk. Instead, their commercial and contracting strategies focus in part on managing the price risk arising from the actions of PJM in reliably coordinating power flows. Market participants accomplish the physical deliverability of bilateral power by *scheduling* with PJM as opposed to actually transporting that power from point A to point B on their own accord. This change necessarily raises the question of what constitutes a physical transaction as compared to what constitutes a financial transaction.

**GIVEN THE CHANGES THAT HAVE TAKEN PLACE IN ELECTRICITY TRANSACTIONS, IS IT POSSIBLE TO DEFINE A PHYSICAL, AS COMPARED TO FINANCIAL, TRANSACTION IN THE PJM-ADMINISTERED MARKETS?**

12. Yes. Any transaction that envisions and could result in a change in the physical commitment and/or dispatch of the system can be defined as “physical.” Physical commitment and dispatch directly relates to flow of physical power.
13. Thus, a transaction between two parties that occurs under either the ISDA Master Agreement with the Power Annex or EEI Master Power Purchase and Sale

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<sup>2</sup>Known as Transmission Line Loading Relief or “TLR.”

Agreement by definition constitutes a physical transaction because the contract requires that:

- With respect to each Transaction, Seller shall sell and deliver, or cause to be delivered, and Buyer shall purchase and receive, or cause to be received, the Quantity of the Product at the Delivery Point,

And

- Seller shall arrange and be responsible for transmission service to the Delivery Point and shall Schedule or arrange for Scheduling services with its Transmission Providers, as specified by the Parties in the Transaction, or in the absence thereof, in accordance with the practice of the Transmission Providers, to deliver the Product to the Delivery Point.

Any scheduling activity in the Real Time Market necessarily has the potential to affect physical power flows and in so doing must be described as a physical transaction. Hence the Companies' Internal Bilateral Transactions constitute physical transactions.

14. Furthermore, to the extent that virtual bids and offers directly affect the commitment of generation units through the Security Constrained Unit Commitment process in the Day Ahead Market, then virtual transactions constitute physical transactions. As I discuss later, this is consistent with the logic used by FERC in its decision(s) on Revenue Sufficiency Guarantee charges in the Midwest ISO. Hence the Companies' virtual transactions also constitute physical transactions.
15. With electricity, a "physical" transaction must be defined within the context of commitment, scheduling and dispatch of the entire system as compared to the actions of a single participant who is either producing or consuming power. Since physical production and consumption are interdependent between and amongst each other, coordination is required and any activity or information that affects that process has a physical effect. In other words, any transaction that directly involves the PJM energy markets is physical in nature.
16. Unfortunately, the language used in designing, implementing and operating PJM and other RTOs has led to confusion. The PJM-administered markets are physical markets. The Day Ahead market is a forward market whose primary purpose – from a market design perspective – is to improve the information that PJM has to conduct least cost commitment and dispatch of generation facilities in real time, i.e. when power actually flows. As such, the Day Ahead market is a physical market with physical transactions. That the Real Time Market is physical is self-evident and does not require discussion.

**GIVEN YOUR DEFINITION OF A PHYSICAL TRANSACTION, DOES EVERY BID AND OFFER, INCLUDING VIRTUAL INCREMENTAL AND**

**DECREMENTAL PAIRS, IN THE DAY AHEAD AND REAL TIME MARKETS CONTEMPLATE A PHYSICAL TRANSACTION?**

17. When PJM makes use of information provided by a market participant (e.g., a bid or offer submitted to PJM) to either commit or dispatch units, then yes, the market participant and PJM are executing a physical transaction. This logic formed at least part of the basis for FERC's decision that virtual bids and offers in the Midwest ISO markets should pay a share of the Revenue Sufficiency Guarantee charges:

The Commission found that the currently-effective cost allocation does not reflect cost causation because virtual supply offers can cause unit commitment and Revenue Sufficiency Guarantee costs, whether the virtual supply offers are made by financial trader market participants (that do not withdraw energy) or other participants with physical load and generation (that do withdraw energy).<sup>3</sup>

As discussed, the operators of the Midwest ISO system and the Independent Market Monitor have concluded that virtual offers can cause Revenue Sufficiency Guarantee costs, and the statistical analysis does not refute those conclusions.<sup>4</sup>

FERC has clearly stated that virtual bids and offers can affect physical commitment and dispatch. Virtual supply/demand are physical because they (1) cause actions that affect physical commitment and dispatch and (2) they are accordingly assessed the associated charges. It logically follows from this argument that virtual supply and demand activity *does* contemplate having a physical affect on the market. Hence FERC concluded that virtuals should be charged like other physical transactions including load purchases and generation supply.<sup>5</sup>

18. The discussion and subsequent decision regarding the allocation of Revenue Sufficiency Guarantee costs in the Midwest ISO highlights the difficulty in maintaining the problematic distinction between physical and financial in RTO markets having a Day Ahead Market and/or centralized commitment.<sup>6</sup> Given PJM's market design, maintaining the distinction between "physical" and "financial" puts PJM in a difficult situation. If so-called "financial" transactions

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<sup>3</sup>*Ameren Servs. Co. v. Midwest Indep. Sys. Operator, Inc.*, 125 FERC ¶ 61,161 at P 105 (2008).

<sup>4</sup>*Id.* at P 112.

<sup>5</sup>In the MISO RSG proceedings so-called physical generators and load argued strongly that virtual supply/demand had physical ramifications and should bear their share of the RSG costs.

<sup>6</sup>By definition, establishing a Day Ahead Market and/or including centralized commitment in the market design, raises the question of what information will be considered in clearing the Day Ahead Market and for commitment and how that information will be included in both processes. The difficulty in answering these questions is a primary reason why some markets outside of North America do not have either a Day Ahead Market or centralized commitment. With only a Real Time Market and with no centralized commitment process there is no need to distinguish between physical and financial.

have real physical affects and they are charged accordingly then it is difficult to not define them as physical. Perhaps this is why PJM has not provided the marketplace with a precise definition of what constitutes a physical transfer of power.

**IS THE DISTINCTION BETWEEN PHYSICAL AND FINANCIAL TRANSACTIONS RELEVANT IN THE PJM ADMINISTERED MARKETS?**

19. Only insofar as PJM might be required to accommodate highly specific or unique conditions or legacy relationships. As a general rule the implementation of non-discriminatory open access (required under FERC Order 888) and market-based congestion management (FERC Order 2000) through centralized dispatch across a wide region is a formal recognition that a definition of physical electricity is not limited to physical generation, consumption, or even the use of transmission capacity.
20. The wider market, as evidenced by the terminology of both the EEI and ISDA Master Agreements, has made this jump already by including the “cause to be delivered” language in their contracts. From the perspective of day-to-day operations, the widespread implementation of RTOs running centralized dispatch has largely eliminated the distinction between physical and financial among market participants. Market participants are well aware of how the creation of an RTO has altered the commercial contracting structure.

**PLEASE DESCRIBE THE ECONOMIC RATIONALE BEHIND THE COMPANIES’ STRATEGY.**

21. In the course of doing business in PJM, the Companies discovered specific locations on the grid where there were persistent price differences between the Day Ahead and Real Time Markets. The Companies’ analysis suggested that the price differences were caused by persistent differences between the Day Ahead and Real Time supply at one node, and the Day Ahead and Real Time load at a neighboring node. In particular, the Real Time load at the load node was higher than that which cleared in the Day Ahead Market, and the Real Time supply at the supply node was higher than that which cleared in the Day Ahead Market. Furthermore, since differences in the amount of energy cleared in the Day Ahead and Real Time Market are charged for balancing operating reserves under the market rules, the systematic differences suggested that the participants at those nodes were either willing to pay these charges for no apparent reason or that they were using specific mechanisms allowed under the Tariff (e.g., IBTs) to eliminate their exposure to these costs. The practical effect of these participants’ strategy was to eliminate megawatts in the Day Ahead Market that were actually going to be produced and consumed in Real Time. In other words, as far as the clearing process for the Day Ahead Market was concerned it was as though the load and generation– that was actually going to be there in Real Time – did not exist.

22. The Companies' strategy was to first deduce what mechanism(s) the market participant(s) at those nodes might be using and then, second, to attempt to reverse engineer the actions of those market participants to put the flow that had been taken out of the Day Ahead Market back in. In so doing the Companies were able to profit from making the clearing prices in the Day Ahead and Real Time Markets more closely converge. By using a combined strategy of submitting virtual incremental and decremental bids in the Day Ahead Market and eScheduling a Bilateral Transaction in the Real Time Market, the Companies were able to restore the megawatts in the Day Ahead Market.

**CAN YOU DESCRIBE IN MORE DETAIL HOW THE TRANSACTION OPPORTUNITY LIKELY AROSE?**

23. This could happen in the following way:

Assume two market participants; a seller (S) and a buyer (B) enter into a bilateral contract (EEI/ISDA). (Note that the bilateral contract does not require S or B to be "physical.") In order for S and B to fulfill the terms of the contract they create a Real Time IBT that mirrors the bilateral. If the parties do nothing other than schedule the Real Time IBT, their actions will result in a deviation between their positions in the Day Ahead and Real Time Markets and will, as a result incur operating reserve charges. In order to reduce their exposure to these charges S and B could purchase/sell in the Day Ahead Market through the use of Virtual DEC and INCs respectively.

Thus S, would purchase the amount of power specified in the IBT in the Day Ahead Market through a Virtual DEC and B would sell the amount of power in the Day Ahead Market through a Virtual INC that they would be buying in the real time through the IBT. The combination of scheduling the IBT and then offsetting the schedule with commensurate Virtual activity in the Day Ahead Market would effectively eliminate that amount of power in the Day Ahead Market process. As a result, the solution to the Day Ahead Market would be based on "inaccurate" information.

24. The "inaccurate" information used by the Day Ahead Market process to arrive at the market clearing prices, could be put into the process by unwinding the steps taken by "S" and "B" in the previous example. It is important to note that every action taken by "S" and "B" in the example is allowed for in the Tariff and can be found in various PJM training materials. Logically, the act of unwinding the actions of "S" and "B" in order to restore the power in the Day Ahead Market and thereby eliminate the price deviation is symmetrically analogous to the actions taken by "S" and "B" in the first place.

**WHY DID THE COMPANIES USE A COMBINED STRATEGY OF VIRTUAL INC/DEC BIDS ALONG WITH INTERNAL BILATERAL TRANSACTIONS?**

25. The Companies acted on an arbitrage opportunity caused by the inaccurate representation in the Day Ahead Market process of load and generation that would materialize in the Real Time Market. The difference in prices between the two markets was small at each location, typically averaging less than \$0.50. Thus the arbitrage opportunity was both persistent and at best marginally profitable on a per megawatt basis. The use of a Bilateral Transaction as defined in Section 1.7.10(a) of the PJM Operating Agreement allowed the Companies to have a balanced position between the Day Ahead and Real Time Market, i.e. their Day Ahead and Real Time positions were offsetting, thereby eliminating any deviations which would have been subjected to operating reserve charges.

**WOULD THE STRATEGY HAVE BEEN RATIONAL WITHOUT THE USE OF INTERNAL BILATERAL TRANSACTIONS?**

26. In the vast majority of cases, no. These transactions are only profitable where the margin earned exceeds the balancing operating reserve costs. Because the price deviations were so small, the application of balancing operating reserves charges in the vast majority of cases would result in a loss. Prior to executing the transactions the Companies were able to calculate the expected margins for each transaction and so would have known beforehand whether the margins would have been large enough to cover the balancing operating reserve charges. These transactions were simply not profitable absent a means to net balancing operating reserve charges.

**DID THE COMPANIES' INTERNAL BILATERAL TRANSACTION ENVISION THE TRANSFER OF PHYSICAL ENERGY?**

27. Through the use of INCs and DECs, the Companies restored energy in the Day Ahead Market that was going to be physically present in the Real Time Market, and hence affected the Day Ahead Market in a physical manner. By affecting the cleared Day Ahead load levels the Companies knew that their actions were affecting the physical transfer of energy. In addition, the Internal Bilateral Transaction itself envisioned the physical transfer of Real Time energy to/from PJM and between the Companies, in accordance with the ISDA Power Annex as described before.

**HOW DO OTHER MARKET PARTICIPANTS USE INTERNAL BILATERAL CONTRACTS?**

28. The ability to engage in Internal Bilateral Transactions provides market participants with another mechanism or tool by which they can manage the financial effects of being part of a regional market based on centralized dispatch. Market participants use IBTs, virtual INCs and DECs, financial transmission rights, Day Ahead bids and offers and Real Time offers to reduce their exposure



to uplift charges, change physical title at a specific nodes, offset or hedge exposure on bilateral contract positions, hedge or manage congestion exposure, etc. In my discussions with other market participants, it is clear they are aware of how to use IBTs and virtuals to offset costs and risks in the market. Specifically they take into consideration that a real time internal bilateral transaction without an offsetting Day Ahead position (such as a virtual) creates an imbalance between the Day Ahead and Real Time position, which would expose them to operating reserve charges. They also consider the fact that the use of a virtual without an offsetting deviation will expose them to operating reserve charges. In practice, I understand they actively use virtual transactions in concert with Real Time IBTs as part of their overall objective to minimize exposure to deviations and deviation-related (i.e., operating reserve) charges. As such, my understanding is that other market participants use Real Time IBTs in concert with other transactions in the same manner as the Companies did.

29. In addition, my understanding is that the IBTs of other market participants do not necessarily have a stronger linkage to a specific physical asset at the source or sink than the Companies do. The larger market participants, those who control some physical generation (either through ownership or contract), serve load either directly, through an affiliate or by contract, have a complex commercial problem. It is my experience that, in virtually every case, these companies do not manage their portfolio of positions on a contract-by-contract basis. Rather they aggregate them into a PJM portfolio or “book” and manage the requirements and risks for the entire portfolio.<sup>7</sup> The companies will then engage in strategies to mitigate or manage specific costs and risks. Included in these strategies will be the management of uplift charges through the coordinated use of virtuals and internal bilateral contracts. The question of whether a specific set or subset of positions in the Day Ahead and Real Time Markets contemplate a physical transaction would have very little meaning to the individual managing the portfolio – it’s physical if they have to schedule it, and then they have to manage any financial risks associated with the portfolio.

#### **WHAT EFFECTS DID THE COMPANIES’ STRATEGY HAVE ON THE REST OF THE MARKET?**

30. From the perspective of market operation, the primary effect of the Companies’ strategy was to put power flow that was actually going to be present in Real Time *into* the Day Ahead Market. This strategy was born from the fact that megawatts that were actually going to be present in real time, were not being represented in the Day Ahead Market clearing process. Therefore, the information the Day Ahead Market was providing to PJM and the market was incomplete.

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<sup>7</sup>For some unique contracts with a customer that has very specific requirements, the companies may be forced to treat it separately but that is a costly endeavor.

31. There can be no doubt that the Companies' strategy improved the convergence of the Day Ahead and Real Time Markets, which as PJM has said will improve market efficiency.<sup>8</sup> Increased convergence at those nodes meant that by definition PJM's commitment and subsequent dispatch of units was potentially more efficient than if the Companies had not employed the strategy, i.e., the market was more efficient as a result. By restoring the load and the subsequent power flows that would be necessary to serve that load into the Day Ahead Market, the Companies' strategy was not only profitable but increased the efficiency of the commitment and dispatch process used by PJM thereby potentially reducing the costs to the rest of the market.

**DID THE COMPANIES' STRATEGY CAUSE PJM TO REQUIRE MORE OPERATING RESERVES?**

32. No. The Companies' actions increased the amount of energy cleared in the Day Ahead Market leading to improved convergence and greater efficiency. The effect of the strategy was to potentially reduce the amount of operating reserve megawatts that PJM might otherwise have to commit, thereby reducing the costs to all market participants.

**PLEASE SUMMARIZE YOUR AFFIDAVIT.**

33. Based on my commercial experience, I can attest that PJM market participants: (1) know that the PJM Operating Agreement allows them to enter into real time internal bilateral transactions, (2) commonly make use of internal bilateral transactions within PJM to operationalize their underlying bilateral contracts and (3) will use IBTs in concert with other mechanisms such as virtual INCs and DEC's to manage their risks and minimize their costs. As such the Companies' use of them was neither inappropriate nor unusual. Indeed, most companies utilize the same bilateral contracts (EEI/ISDA) and physical delivery mechanisms (eSchedules) as the Companies did.
34. Based on my academic background and my experience designing, implementing and operating wholesale electricity markets, since it has been decided that Virtual INCs and DEC's can affect physical commitment and dispatch, I can attest that the Companies satisfied any relevant physicality requirements for IBTs by virtue of transacting in PJM's markets. I can also attest that their arbitrage of these two markets resulted unequivocally in more efficient (i.e. lower cost) market outcomes. The prime motivation behind the arbitrage strategy was the persistence, and not the magnitude, of the price deviations. As such, had operating reserve charges been applied to the transactions, the Companies would not have pursued the arbitrage opportunity. The persistence of the price deviations suggested to the Companies that for some reason the outcomes

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<sup>8</sup>PJM, "Changes to Operating Reserve Accounting Methodology", presentation given at the System Operator Seminar in 2008.

produced by the Day Ahead Market were the result of inaccurate information, i.e. information that was not reflective of the actual expectations of market participants regarding what would take place in Real Time. As such, the Companies acted appropriately to properly reflect reality and converge the market.

**DOES THIS CONCLUDE YOUR AFFIDAVIT?**

35. Yes it does.

**AFFIDAVIT**

Dr. Ronald R. McNamara, being duly sworn, deposes and states that the contents of the foregoing Affidavit of Dr. Ronald R. McNamara are true and accurate to the best of his knowledge, information and belief.



Dr. Ronald R. McNamara  
First Principles Economics, LLC

For and on behalf of  
DC Energy, LLC and  
DC Energy Mid-Atlantic, LLC

Subscribed and sworn to me this 25<sup>th</sup> day of October, 2011:

  
\_\_\_\_\_  
Notary Public

Printed Name: Yueh Ching Tong  
My commission expires April 11 2013

Attachment E

December 20, 2005 Reserve Market Working Group Presentation



# *Balancing Operating Reserves Examples*

RMWG  
December 20, 2005



# Balancing Operating Reserves Charges

Balancing Operating Reserve Charges Applied to:

<u>DAY AHEAD</u>	"Bucket 1 – Demand"	<u>Balancing Market</u>
Cleared Decrements, DA Load, Sales/Export	← Net Deviation of total →	RT Load, Sales/Export
	"Bucket 2 - Supply"	
Cleared Increments, Purchases/Imports	← Net Deviation of total →	Purchases/Imports
	"Bucket 3 – Generator Deviations"	
DA Scheduled Generation	← Individual deviation on each generator not following dispatch →	RT Generation

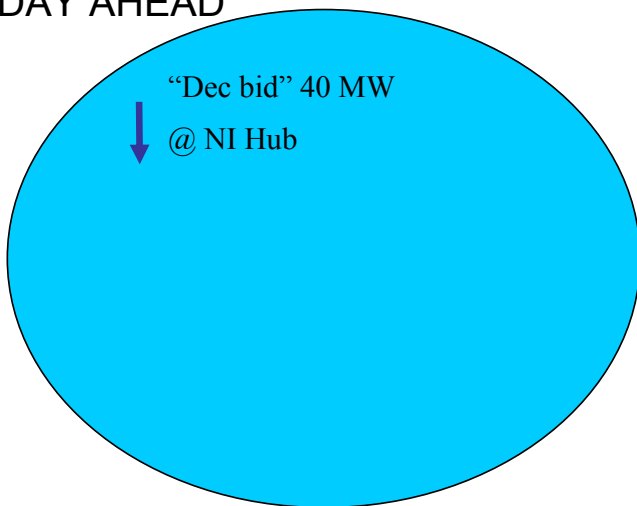


- Demand is evaluated separately from Supply
  - DA demand is compared to RT demand; DA supply is compared to RT supply
  - Even if net of demand and supply = 0, participant could be subject to Balancing Operating Reserves charges
- Generation is evaluated on an individual basis



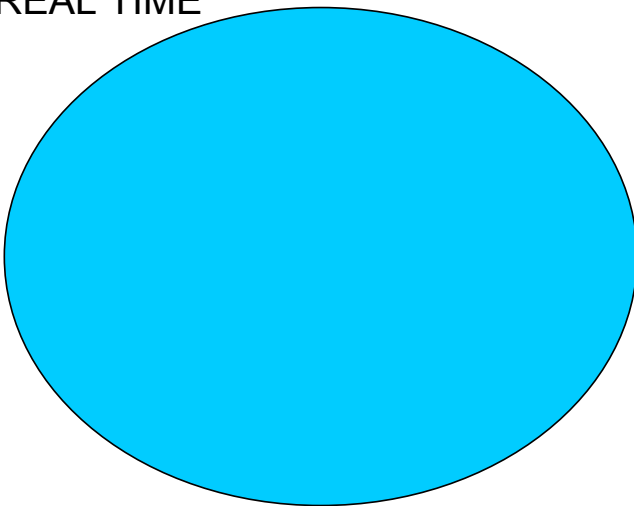
- Demand Bucket
  - Cleared decs, DA load, DA sale (eSchedule), DA exports, RT load, RT sales, RT exports
  - Looks like load to PJM
  - Generation was cleared in the DA market to match this load
  - Will have to change dispatch in RT if this “load” changes in RT

DAY AHEAD



- Looks like 40 MW DA load
- Because this dec cleared DA, 40 MW was cleared from the “supply” bucket to offset this “demand”

REAL TIME



**\*\*Dec bids are “virtual,” and do not show up as RT load**

- Looks like 0 MW RT load
- Participant had 40 MW DA load
- Operating Reserves: subject to 40 MW Balancing O.R. charge (*and 40 MW DA O.R. charge*)
- *In this case, the absence of the 40 MW RT sale impacts dispatch. Now it seems like there is an excess of 40 MW on the “supply” side of the equation.*



## Example 1 – Dec Bid in DA Market

- What could this participant do in real time to avoid a Balancing Operating Reserves charge in this scenario?
  - A) 40 MW export to NY
  - B) 40 MW import from NY
  - C) 40 MW RT load in APS
  - D) 40 MW bilateral sale (eSchedule)

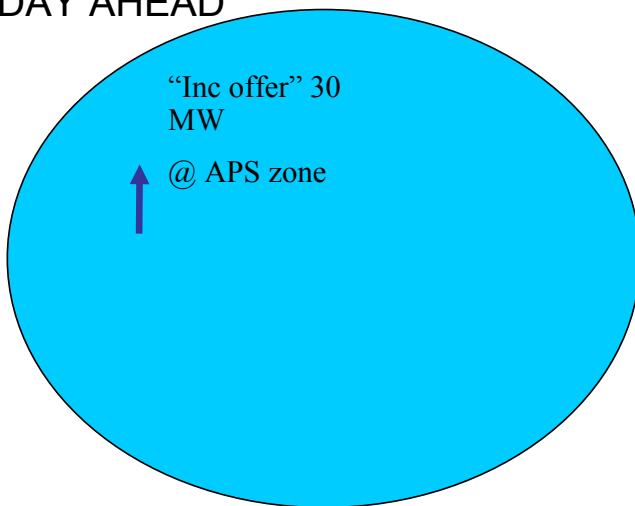
**ANSWERS A, C, and D are correct**

***Note: Location of the exports and load was irrelevant information***

- To avoid an Operating Reserves charge, this participant would need 40 MW of “demand” in Real Time to offset the 40 MW of “demand” that cleared in the DA market
- An additional 40 MW on the “supply” side (RT import, for example) only serves to increase the excess supply in this scenario

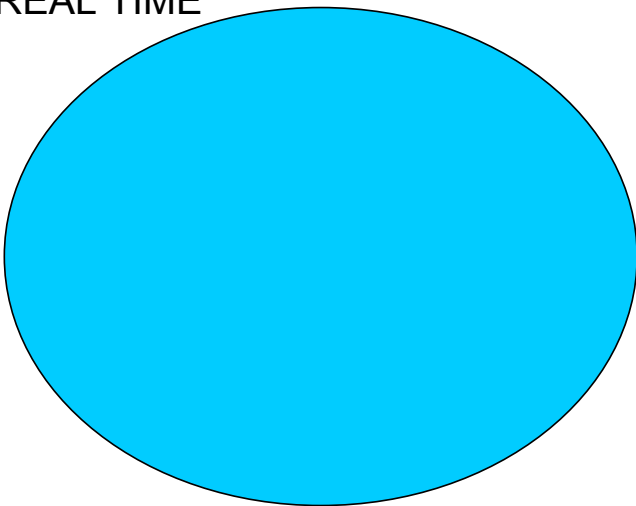
- Supply Bucket
  - Cleared incs, DA purchase (eSchedule), DA imports, RT purchases, RT imports
  - Looks like generation to PJM
  - This “supply” was cleared in the DA market to match DA load.
  - Will have to change dispatch in RT if this “generation” changes in RT

### DAY AHEAD



- Looks like 30 MW DA generation
- This inc cleared DA to match 30 MW of load in the “demand” bucket
- Another supply transaction may not have cleared DA because this inc bid was entered in the DA market

REAL TIME



***\*\*Inc offers are “virtual,” and do not show up as RT supply***

- Looks like 0 MW RT supply
- Participant had 30 MW DA supply
- Operating Reserves: subject to 30 MW Balancing O.R. charge
- ***Remember, the market was expecting to see 30 MW of “generation”!***





## Example 2 – Inc Offer in DA Market

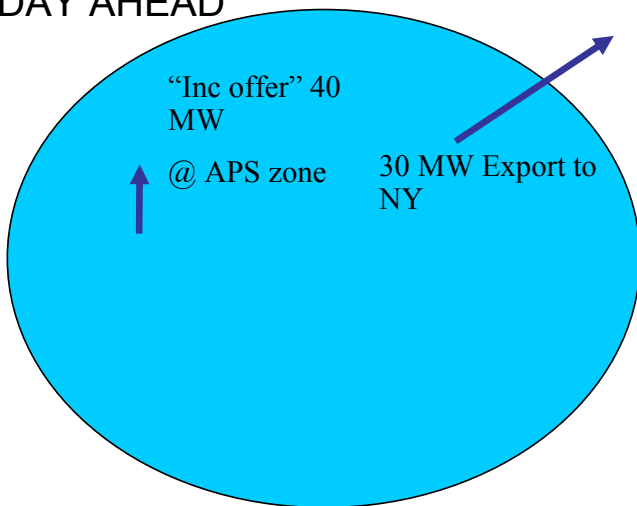
- What could this participant do in real time to avoid a Balancing Operating Reserves charge in this scenario?
  - A) 30 MW import from NY
  - B) 20 MW export to FE and a 50 MW bilateral purchase (eSchedule)
  - C) 30 MW bilateral sale (eSchedule)
  - D) 30 MW bilateral purchase (eSchedule)

**ANSWERS A and D are correct**

***Note: Location of the exports and load was irrelevant information***

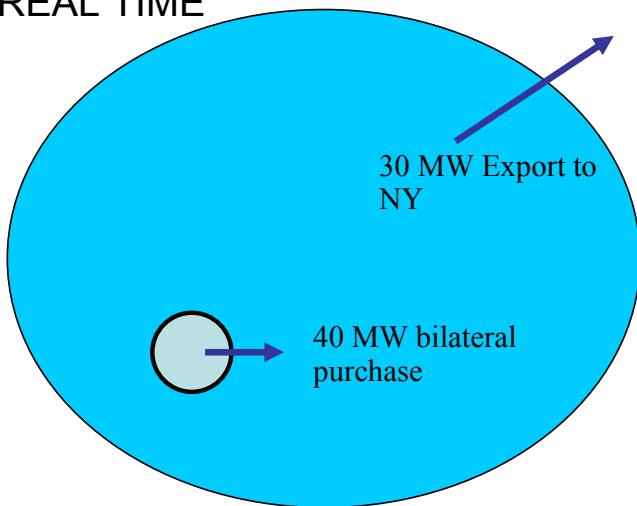
- To avoid an Operating Reserves charge, this participant would need 30 MW of “supply” in Real Time to offset the 30 MW of “supply” that was cleared in the DA market
- An additional 30 MW on the “demand” side (RT bilateral sale, for example) only serves to increase the excess demand in this scenario

DAY AHEAD



- Looks like 40 MW DA supply and 30 MW DA demand

REAL TIME



- Looks like 40 MW RT supply and 30 MW RT demand
- Operating Reserves: No Balancing O.R. charge (but 30 MW DA O.R. charge)
- *The market sees the same supply and demand in Real Time as in Day Ahead*

**\*\*Inc offers are “virtual,” and do not show up as RT supply**

Attachment F

Tariff Attachment K, Appendix, Section 1.7.10 in effect in 2006

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

Third Revised Sheet No. 341  
Superseding First Revised Sheet No. 341

### **1.7.10 Other Transactions.**

(a) Market Participants may enter into bilateral contracts for the purchase or sale of electric energy to or from each other or any other entity, subject to the obligations of Market Participants to make Capacity Resources available for dispatch by the Office of the Interconnection. Bilateral arrangements that contemplate the physical transfer of energy to or from a Market Participant shall be reported to and coordinated with the Office of the Interconnection in accordance with this Schedule.

(b) Market Participants shall have Spot Market Backup with respect to all bilateral transactions that are not dynamically scheduled pursuant to Section 1.12 and that are curtailed or interrupted for any reason (except for curtailments or interruptions through active load management for load located within the PJM Region).

(c) To the extent the Office of the Interconnection dispatches a Generating Market Buyer's generation resources, such Generating Market Buyer may elect to net the output of such resources against its hourly Equivalent Load. Such a Generating Market Buyer shall be deemed a buyer from the PJM Interchange Energy Market to the extent of its PJM Interchange Imports, and shall be deemed a seller to the PJM Interchange Energy Market to the extent of its PJM Interchange Exports.

(d) A Market Seller may self-supply Station Power for its generation facility in accordance with the following provisions:

(i) A Market Seller may self-supply Station Power for its generation facility during any month (1) when the net output of such facility is positive, or (2) when the net output of such facility is negative and the Market Seller during the same month has available at other of its generation facilities positive net output in an amount at least sufficient to offset fully such negative net output. For purposes of this subsection (d), "net output" of a generation facility during any month means the facility's gross energy output, less the Station Power requirements of such facility, during that month. The determination of a generation facility's or a Market Seller's monthly net output under this subsection (d) will apply only to determine whether the Market Seller self-supplied Station Power during the month and will not affect the price of energy sold or consumed by the Market Seller at any bus during any hour during the month. For each hour when a Market Seller has positive net output and delivers energy into the Transmission System, it will be paid the locational marginal price ("LMP") at its

Issued By: Craig Glazer  
Vice President, Government Policy  
Issued On: April 30, 2004

Effective: May 1, 2004

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

Third Revised Sheet No. 342  
Superseding Second Revised Sheet No. 342

bus for that hour for all of the energy delivered. Conversely, for each hour when a Market Seller has negative net output and has received Station Power from the Transmission System, it will pay the LMP at its bus for that hour for all of the energy consumed.

(ii) Transmission Provider will determine the extent to which each affected Market Seller during the month self-supplied its Station Power requirements or obtained Station Power from third-party providers (including affiliates) and will incorporate that determination in its accounting and billing for the month. In the event that a Market Seller self-supplies Station Power during any month in the manner described in clause (1) of paragraph (d)(i) above, Market Seller will not use, and will not incur any charges for, transmission service. In the event, and to the extent, that a Market Seller self-supplies Station Power during any month in the manner described in clause (2) of paragraph (d)(i) above (hereafter referred to as "remote self-supply of Station Power"), Market Seller shall use and pay for transmission service for the transmission of energy in an amount equal to the facility's negative net output from Market Seller's generation facility(ies) having positive net output. Unless the Market Seller makes other arrangements with Transmission Provider in advance, such transmission service shall be provided under Part II of the PJM Tariff and shall be charged the hourly rate under Schedule 8 of the PJM Tariff for non-firm point-to-point transmission service with an election to pay congestion charges, provided, however, that no reservation shall be necessary for such transmission service and the terms and charges under Schedules 1, 1A, 2 through 6, 9 and 10 of the PJM Tariff shall not apply to such service. The amount of energy that a Market Seller transmits in conjunction with remote self-supply of Station Power will not be affected by any other sales, purchases, or transmission of capacity or energy by or for such Market Seller under any other provisions of the PJM Tariff.

(iii) A Market Seller may self-supply Station Power from its generation facilities located outside of the PJM Region during any month only if such generation facilities in fact run during such month and Market Seller separately has reserved transmission service and scheduled delivery of the energy from such resource in advance into the PJM Region.

Issued By: Craig Glazer  
Vice President, Government Policy  
Issued On: April 30, 2004

Effective: May 1, 2004

Attachment G

April 2, 2006 Letter and Delivery Confirmation



April 4, 2006

Dr. Joseph E. Bowring  
Manager, Market Monitoring Unit  
PJM Interconnection  
955 Jefferson Avenue  
Valley Forge Corporate Center  
Norristown, PA 19403-2497

Dear Joe,

DC Energy Mid-Atlantic is a newly formed, wholly-owned subsidiary of DC Energy, and has recently been approved as a new PJM member. Since you will notice that both entities will be conducting business within PJM's markets, we thought it would be prudent to explain our objectives for DC Energy and its subsidiary and provide you an explanation of transactions contemplated between the two companies, as well as the rationale of such transactions. As you might appreciate, this type of structure is commonly used to segment investment capital and organize business activities into market specific LLCs.

DC Energy currently conducts business across many different ISO markets, with some of that activity being inter-regional in nature, and some being "local" or completely contained within a specific region. Our intention in creating a new subsidiary, DC Energy Mid-Atlantic, is to have the subsidiary assume a part of the DC Energy activity that is wholly contained within the PJM Interconnection footprint. As such, we will be migrating most, if not all of our FTR activity to the new subsidiary. In similar fashion, we currently have another active subsidiary in the Midwest ISO market footprint and are in the process of establishing subsidiaries for our intra-market activities for the New York ISO and ISO New England markets.

The parent company, DC Energy, will continue to be active in the PJM market and will take the lead role in committee and stakeholder processes.

We envision the new DC Energy Mid-Atlantic as a vehicle through which we will expand our activity into PJM internal bilateral transactions. We have begun to explore this market and believe that investment opportunity exists and that the market would benefit from increased participation. Initially, and to balance the DC Energy Mid-Atlantic portfolio, DC Energy will establish an internal bilateral contract with DC Energy Mid-Atlantic at the PJM western hub. Using this internal bilateral DC Energy Mid-Atlantic will transfer average real-time power-price risk to DC Energy thus allowing it to focus on the "local" congestion issues and to develop the internal bilateral market without being distracted by a significant real-time power price position. In addition, the internal bilateral contract between DC Energy Mid-Atlantic and DC Energy will provide a synergistic offset to expected deviations in the Real-Time market.

We believe this new structure and the internal bilateral transaction at the PJM trading hub are consistent with and permitted by the PJM tariff and will have a beneficial, pro-efficiency effect on the functioning of the PJM markets. This new structure will assist in reducing the RT OR charges we are currently assessed, through the direct result of applicable netting rules involving INC and DEC positions and internal sales and purchases. (These were described in a PJM presentation entitled, "Balancing Operating Reserve Examples" in a December 20, 2005 Reserve Market Working Group meeting, wherein PJM explained how parties to virtual transactions can act within the rules of the PJM tariff to reduce Balancing Market OR charges with the use of internal bilateral transactions.) By reducing the cost of transacting in the Virtual Energy market we will be able to increase our participation by addressing convergence opportunities with thinner margins than would otherwise be economic, benefiting the market as a whole. Our new structure will not have any adverse impact on market clearing prices, the market, competition or efficiency. Quite the contrary, as we discuss above, we expect our activity will enhance market efficiency.

Perhaps I am providing you with more details than you would like or need, but since you had already discussed this topic with Bruce, I thought you would appreciate an update on our activities. If you have any questions or concerns, feel free to call me at any time.

Regards,

Cc: Andy Ott, PJM  
Stu Bresler, PJM  
Bruce Bleiweis



<b>Invoice Number</b> 3-444-24122	<b>Invoice Date</b> Apr 11, 2006	<b>Account Number</b> 1676-5803-2	<b>Page</b> 14 of 17
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Picked up: Apr 05, 2006

Cust. Ref.: DCEPJM01A

Ref. #2:

Payor: Shipper

Ref. #3: 1260-000

- Fuel Surcharge - FedEx has applied a fuel surcharge of 12.00% to this shipment.
- The Earned Discount for this ship date has been calculated based on a revenue threshold of \$ 135.16
- Distance Based Pricing, Zone 2

**INET**

Tracking ID 791433863849  
 Service Type FedEx Standard Overnight  
 Package Type FedEx Envelope  
 Zone 2  
 Packages 1  
 Rated Weight N/A  
 Delivered Apr 06, 2006 09:28  
 Svc Area A2  
 Signed By R.LAKE  
 FedEx Use 000000000/0000200/\_

**Sender**

Andrew J. Stevens  
 DC Energy  
 8065 LEESBURG PIKE, SUITE 500  
 VIENNA VA 22182 US

**Recipient**

Dr. Joseph E. Bowring  
 PJM Interconnection, LLC  
 955 Jefferson Avenue  
 NORRISTOWN PA 19403 US

Transportation Charge	11.80
Fuel Surcharge	1.23
Automation Bonus Discount	-1.18
Earned Discount	-0.35
<b>Total Charge</b>	<b>USD \$11.50</b>

Attachment H

The Western Hub Example

### Clarification of Internal Bilateral Transactions

The following summarizes a clarification of the use of Internal Bilateral Transactions (“IBTs”).

- As today, parties to an IBT shall inform PJM of the IBT through eSchedules.
- For all IBTs scheduled through eSchedules, a transfer of title to the energy from the Seller to the Buyer shall occur at the location of the IBT.
  - Example 1: IBT between a generator (Seller) and an LSE (Buyer) at the generation bus. Title to the energy is transferred from the Seller to the Buyer at the Seller’s generation bus.
  - Example 2: IBT at Western Hub. Transfer of title to the energy from the Seller to the Buyer occurs at Western Hub.
  - In all cases, the IBT will be reflected in the net PJM Interchange of the Buyer and Seller.
- After the transfer of title to the energy under the IBT, all further transactions in the marketplace related to that energy are transactions conducted by the IBT Buyer.
  - Example 1: IBT between a generator (Seller) and an LSE (Buyer) at the generation bus. LSE Buyer would be responsible for the delivery of energy from the generation bus to its load (e.g via network transmission service).
  - Example 2: Western Hub IBT between Seller and an LSE (Buyer). LSE Buyer would be responsible for the delivery of energy from the Western Hub to its load (e.g via network transmission service).
  - Example 3: Western Hub IBT between Seller and a non-LSE Buyer. Buyer will take title to the energy at Western Hub and be a seller of the energy into the market at Western Hub.
- PJM will not require credit from Buyers with respect to IBT itself. (Seller and Buyer make all payment and collateral arrangements between themselves.) PJM will require credit from the IBT Buyer for any residual charges from the pool, including congestion associated with delivery from the IBT point of sale to the Buyer’s load.

- Consequences of Defaults
  - Seller Default
    - IBT Buyer shall guarantee and indemnify PJM and the PJM Members for the costs of IBT Seller's failure to deliver energy to IBT Buyer, because upon IBT Seller's failure, the pool will immediately source IBT Buyer's energy.
    - To the extent IBT Seller fails to pay for energy sourced from the pool for its IBT, PJM will call for IBT Buyer to (i) indemnify the pool and (ii) immediately post collateral to cover its expected going-forward market exposure without the IBT. To the extent of the indemnification, other PJM members will not be subject to any default allocations for IBT Seller's default in payment for energy to cover its IBT transactions.
    - If an IBT Seller is in default of its obligations under the Operating Agreement, PJM automatically will terminate all of that Seller's IBTs for performance after the date the Seller is declared in default.
  - Buyer Default
    - An IBT Buyer's failure to pay the Seller for IBT energy is a matter strictly between the Buyer and Seller and does not involve PJM or other market participants.
    - PJM will not pay IBT Seller for energy it transfers to the IBT Buyer notwithstanding any default by IBT Buyer that IBT Seller may claim.
    - IBT Seller may instruct PJM to terminate the IBT.

Attachment I


Verification of Andrew J. Stevens

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

<b>DC Energy, LLC and</b>	)	
<b>DC Energy Mid-Atlantic, LLC</b>	)	
<b>Complainants</b>	)	
	)	
<b>v.</b>	)	<b>Docket No. EL11- _____ -000</b>
	)	
<b>PJM Interconnection, L.L.C.</b>	)	
<b>Respondent.</b>	)	

**VERIFICATION OF  
DR. ANDREW J. STEVENS**

I, the undersigned, declare under penalty of perjury that I am the Managing Director of DC Energy, LLC; that I have the authority to verify the foregoing Complaint in the above-captioned proceeding on behalf of DC Energy, LLC and DC Energy Mid-Atlantic, LLC; that I have read said Complaint and know the contents thereof; and that all of the statements contained in said Complaint are true and correct to the best of my knowledge and belief.

  
Dr. Andrew J. Stevens  
Managing Director

Dated: October 24, 2011



Attachment J

Federal Register Form of Notice

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

**DC ENERGY, LLC AND ;** )  
**DC ENERGY MID-ATLANTIC, LLC** )  
 ) **Docket No. EL12- \_\_\_-000**  
**COMPLAINANTS,** )  
 )  
**V.** )  
 )  
**PJM INTERCONNECTION, L.L.C.** )  
 )  
**RESPONDENT.** )

**NOTICE OF COMPLAINT**  
(\_\_\_\_\_, 2011)

Take notice that on October 27, 2011, DC Energy, LLC and DC Energy, Mid-Atlantic LLC (Complainants) filed a Complaint against the PJM Interconnection, L.L.C. (PJM) pursuant to Sections 206 and 306 of the Federal Power Act, over the applicability of certain charges to virtual transactions.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission’s Rules of Practice and Procedure (18 C.F.R. §§ 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. The Respondent’s answer and all interventions, or protests must be filed on or before the comment date. The Respondent’s answer, motions to intervene, and protests must be served on the Complainants. The Commission encourages electronic submission of protests and interventions in lieu of paper using the “eFiling” link at <http://www.ferc.gov>. Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426. This filing is accessible on-line at <http://www.ferc.gov>, using the “eLibrary” link and is available for review in the Commission’s Public Reference Room in Washington, D.C. There is an “eSubscription” link on the web site that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please email [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov), or call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Comment Date: 5:00 pm Eastern Time on (insert date).

Kimberly D. Bose  
Secretary

Document Content(s)

FINAL Complaint of DC Energy and DCE Mid-Atlantic.PDF.....1-227