



understanding that uplift is part of the cost of serving load and load is the beneficiary of uplift.”<sup>4</sup> Protesters claim that “ISO’s optimization remains focused on least-cost dispatch, and when uplift occurs as a result, load is the beneficiary of prices being too low to compensate all the generators that the ISO selected.”<sup>5</sup>

Protesters’ assertions are incorrect. The asserted common understanding does not exist. Protesters misunderstand the nature of LMP. It is well understood that, in the presence of nonconvexities in power production, the efficient outcome of a nodal pricing system will entail the payment of some uplift. Prices in PJM are not too low.

Not all the uplift paid in PJM is a result of the optimal functioning of an LMP market. Real world operator actions, lumpiness in the system, errors in forecasting, commitment decisions, and dispatch decisions all result in the payment of uplift.

It is illogical to assert that because generators produce power and load consumes power that the entire system is for the benefit of load and that load should pay all costs. That argument proves too much.

There are clearly costs that result from the activity of virtual participants. Virtuals pay deviation costs because the activity of virtuals results in deviations. Virtuals also affect unit commitment and unit dispatch and thus cause uplift costs to be incurred.

#### **B. PJM’s Proposal Will Treat UTCs Comparably with INCs and DEC.**

Protesters argue that PJM’s proposed allocation proposal will have “profound negative impacts on one transaction and one subclass of market participant” and therefore “the proposal is unduly discriminatory.”<sup>6</sup> Protesters argue that PJM’s “proposal does not

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<sup>4</sup> Appian Way at 3.

<sup>5</sup> *Id.*

<sup>6</sup> FMC at 2.

even manage to treat UTCs comparably with INCs and DECs.”<sup>7</sup> Protesters state, “PJM proposes to charge each UTC transaction as two deviations, while each INC and DEC transaction is charged as only one deviation.”<sup>8</sup> Protesters claim that this is unfair because UTCs have no effect on power balance and therefore, “[t]o the extent UTCs impact commitment and uplift, they will generally have a lesser impact than an INC or a DEC.”<sup>9</sup>

There is no basis for the assertion that PJM’s proposal to allocate uplift to UTC constitutes a discriminatory treatment of UTCs relative to other products. As the Protesters note, “Commission policy under sections 205 and 206 of the FPA clearly requires the Commission to treat similarly situated customers—and products—in a comparable manner, but also requires the Commission to treat customers—and products—which are not similarly situated in manners which reflect their differences.”<sup>10</sup> There is no discrimination. On the contrary, PJM’s proposal corrects the existing discrimination in favor of UTCs because it recognizes that UTCs are virtual injections and withdrawals in the day-ahead market and create associated deviations in the real-time market.

PJM’s allocation proposal does not discriminate against any entity or type of market participant. All participants or entities are eligible to make use of UTCs. PJM’s proposed allocation of uplift to UTCs is the same regardless of entity or type of market participant using the product.

There is no basis for the argument that deviations from UTCs have less impact than deviations from INCs and DECs. There is nothing about a UTC injection in the day-ahead market model that makes it different from other injections. There is nothing about a UTC withdrawal in the day-ahead market model that makes it different from other withdrawals.

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<sup>7</sup> Appian Way at 2.

<sup>8</sup> *Id.* at 1–2 n.3.

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

<sup>10</sup> FMC at 15.

### **C. PJM's Proposed Allocation of Uplift Is Consistent with Cost Causation Principles.**

Protesters claim that PJM's "proposal is in clear contravention of the RM17-02 NOPR guidelines and maintains a non-cost-causation-based deviations approach to uplift allocation, continuing unnecessary and uneconomic barriers to market participants' accessing the ISO spot market to settle imbalances, and dis-incenting efficiency enhancing transactions."<sup>11</sup>

There is no basis for these assertions. There is no basis for the assertion that virtual bids, UTCs in particular, contribute any less to uplift than any other source of injection or withdrawal in the day-ahead market or any less than any other source of deviation between the day-ahead and real-time markets.

Protesters continue to assert that virtuals are efficiency enhancing without any supporting evidence. Protesters assume that virtual behavior results in efficiency improving price convergence at individual nodes. There is no evidence to support this assumption.

Protesters' position in general relies on the assumption that the day-ahead market model and the real-time market model are the same. But that is not correct.

The day-ahead market model is only an approximation of the real-time model. For example, Protesters acknowledge that the inclusion of a bus in the day-ahead market that does not exist in the real-time physical model (a dead bus) is a modeling problem that will create opportunities for making profit without creating any convergence. But there are systematic modeling differences between the day-ahead and real-time market that go well beyond the inclusion of dead buses. A primary example of these modeling differences between the day-ahead and real-time models is the difference between the set of transmission constraints enforced in the day-ahead and real-time market models.

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<sup>11</sup> Appian Way at 3-4.

As a result of their impact on the day-ahead market solution time, PJM limits the number of potentially binding constraints that it includes in the day-ahead solution. On average, PJM only models about 25 percent of the physical transmission elements in the day-ahead market. PJM is selective in the constraints it enforces in the day-ahead market, based on its expectations regarding real-time prices, real-time congestion and the set of generation units PJM believes it will require in the real-time market. The day-ahead enforced constraints and their limits change over time, and can change hourly within the day. PJM selects day-ahead constraints that are most important in aligning the hourly results of the day-ahead and real-time markets. Profitable nodal trading opportunities caused by these modeling differences do not improve the efficiency of the market. These are false arbitrage opportunities. If the price differences between the day-ahead and real-time market within a zone are created by the exclusion of a constraint in the day-ahead market, no amount of virtual activity will align the market results. The only outcome will be a wealth transfer among participants.

PJM's actions in selecting constraints in the day-ahead market are explicitly designed to converge the day-ahead and real-time market results and generally succeed in that effort. Virtual transactions that take advantage of PJM's mistakes when the day-ahead constraints do not match real-time constraints are simply extracting revenues from the market that would otherwise belong to load or generation and are not contributing to efficiency or convergence. Such transactions are examples of false arbitrage.

#### **D. PJM's Allocation Proposal Will Not Make UTCs Financially Infeasible.**

Protesters assert that PJM's proposal to allocate uplift to UTCs "will render the UTC transaction financially infeasible, thus destroying the ability of financial market participants to bring liquidity and competition to the PJM Day-Ahead and Real-Time markets."<sup>12</sup>

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<sup>12</sup> FMC at 2.

If the allocation of uplift to UTCs means that low margin penny bid strategy to take advantage of modeling differences is no longer profitable, the market is helped, not hurt.

PJM's allocation proposal will make many false arbitrage based strategies less attractive, but will not eliminate opportunities to trade based on price differences between the day-ahead and real-time market.

## II. MOTION FOR LEAVE TO ANSWER

The Commission's Rules of Practice and Procedure, 18 CFR § 385.213(a)(2), do not permit answers to answers or protests unless otherwise ordered by the decisional authority. The Commission has made exceptions, however, where an answer clarifies the issues or assists in creating a complete record.<sup>13</sup> In this answer, the Market Monitor provides the Commission with information useful to the Commission's decision-making process and which provides a more complete record. Accordingly, the Market Monitor respectfully requests that this answer be permitted.

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<sup>13</sup> See, e.g., *PJM Interconnection, L.L.C.*, 119 FERC ¶61,318 at P 36 (2007) (accepted answer to answer that "provided information that assisted ... decision-making process"); *California Independent System Operator Corporation*, 110 FERC ¶ 61,007 (2005) (answer to answer permitted to assist Commission in decision-making process); *New Power Company v. PJM Interconnection, L.L.C.*, 98 FERC ¶ 61,208 (2002) (answer accepted to provide new factual and legal material to assist the Commission in decision-making process); *N.Y. Independent System Operator, Inc.*, 121 FERC ¶61,112 at P 4 (2007) (answer to protest accepted because it provided information that assisted the Commission in its decision-making process).

### III. CONCLUSION

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

Respectfully submitted,



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Dated: November 22, 2017

## CERTIFICATE OF SERVICE

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

Dated at Eagleville, Pennsylvania,  
this 22<sup>nd</sup> day of November, 2017.



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