

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

Energy Storage Association v. PJM Interconnection, L.L.C.	) ) ) )	Docket Nos. EL17-64-000
Renewable Energy Systems Americas and Invenergy Storage Development LLC v. PJM Interconnection, L.L.C.	) ) ) ) )	EL17-65-000  (not consolidated)

**COMMENTS OPPOSING SETTLEMENT OF  
THE INDEPENDENT MARKET MONITOR FOR PJM**

Pursuant to Rules 211 and 602(f) of the Commission’s Rules and Regulations,<sup>1</sup> Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM Interconnection, L.L.C. (“PJM”) (“Market Monitor”),<sup>2</sup> submits these comments opposing the Settlement Agreement and Offer of Settlement filed in the above captioned proceeding on April 23, 2019, by PJM on behalf of itself and parties comprised of electric storage interests (“Settlement”).<sup>3</sup>

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<sup>1</sup> 18 CFR §§ 385.211 & 385.602(f) (2018).

<sup>2</sup> Capitalized terms used herein and not otherwise defined have the meaning used in the PJM Open Access Transmission Tariff (“OATT”).

<sup>3</sup> These other parties include The AES Corporation; Duke Energy Corporation; EDF Renewables, Inc.; Invenergy Investment Company LLC; NextEra Energy, Inc.; Renewable Energy Systems Americas, Inc.; Convergent Energy and Power LP, Convergent Energy and Power GP LLC, and Hazle Spindle, LLC; GlidePath Power Solutions LLC; GlidePath Power LLC (together with GlidePath Power Solutions LLC; and Energy Storage Association (“ESA”).

The Settlement has no support in the record. The Market Monitor opposes the settlement because it is outside the scope of the proceeding. The Settlement resolves no issue raised in the complaints or otherwise set for settlement discussion. The Settlement instead simply transfers PJM customers' money to certain storage service suppliers and ends the proceeding. PJM does not explain its authority to give its customers money away under the pretense of settlement or otherwise.

Because the Settlement addresses matters outside the proper scope of the proceeding, affected parties had no notice and opportunity to evaluate their interests in the outcome. The Settlement improperly circumvents the PJM stakeholder process and imposes an unjust and unreasonable transfer of wealth between PJM customers and certain suppliers. PJM customers, who bear the costs of the Settlement, are not party to the Settlement and were not represented in the Settlement discussions. Customers would have had representation in the stakeholder process, which the Settlement operates to circumvent. The Settlement is unjust, unreasonable and unduly discriminatory, and should not be approved.

A contested settlement must be evaluated on the merits, including under the standards set forth in the *Trailblazer Pipeline Co.* line of decisions ("*Trailblazer*").<sup>4</sup> The courts also have been clear that contested settlements cannot be accepted simply because certain parties agree.<sup>5</sup> The only basis for this Settlement is that certain parties have agreed to a transfer of wealth from customers to certain suppliers of regulation from batteries. A black box value having no record support cannot be evaluated on its merits and cannot be approved on its merits. There is no support for any positive payment to the identified

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<sup>4</sup> *Trailblazer Pipeline Co.*, 85 FERC ¶ 61,082 (1998) ("*Trailblazer I*"); *Trailblazer Pipeline Co.*, 85 FERC ¶ 61,345 at 62,341 ("*Trailblazer II*"), order on reh'g, 87 FERC ¶ 61,110 ("*Trailblazer III*"), aff'd, 88 FERC ¶ 61,168; see also *Pub. Utils. Comm'n of Cal. v. El Paso Natural Gas Co.*, 105 FERC ¶ 61,201 at P 44 (2003), reh'g denied, 106 FERC ¶ 61,315 (2004).

<sup>5</sup> See *Laclede Gas Company v. FERC*, 997 F.2d 936, 947 (D.C. Cir. 1993).

suppliers who have already been overcompensated in the regulation market. The black box Settlement should be rejected because there is no supportable positive value for any settlement number.

## I. BACKGROUND

On April 14, 2017, Complainants filed a complaint asserting that PJM's January 9, 2017, modification of its RegD signal was "unilateral, unreasonable and unduly discriminatory."<sup>6</sup> Complainants asserted that as a result of the change in the signal, storage facilities following the signal in PJM's regulation market "were adversely affected."<sup>7</sup> Complainants claimed that they "understand PJM's position to be that a change to the neutrality of the frequency regulation signal is necessary for operational purposes" but complained that the change in the signal "disproportionately impacts the performance scores of the energy-limited resources and not other resources."<sup>8</sup> The Complainants also asserted that "PJM's unilateral change to the RegD signal contravenes the need for regulatory certainty."<sup>9</sup>

Complainants asked for injunctive relief, asking that Commission direct "PJM revert to using the original RegD signal, and, when PJM develops alternative procedures to address its concerns about surplus fast response supply, it should make a filing to codify its new procedures in its tariff subject to Commission approval."

On July 25, 2017, Complainants filed a motion for a settlement judge to address their complaint.

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<sup>6</sup> Complaint at 1.

<sup>7</sup> *Id.*

<sup>8</sup> Complaint at 2.

<sup>9</sup> Complaint at 3.

On August 9, 2017, PJM filed a response to the motion for a settlement judge, asking that it was premature to go to settlement discussion, as PJM was intending “to file revisions to the PJM Open Access Transmission Tariff (“Tariff”), the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. (“Operating Agreement”) that will amend the compensation structure of the Regulation market...and either address or moot some of the issues raised herein by ESA and RESI.”<sup>10</sup> PJM expressed concern about entering into settlement discussions only with the Complainants “as PJM must ensure that any resolution is not discriminatory or unduly preferential.”<sup>11</sup> However, PJM indicated it “would be willing to discuss certain limited issues, such as clarifying provisions related to the Regulation market in its governing documents and transition mechanisms for certain Regulation resources that may be materially impacted by the operational changes PJM has made to date.”<sup>12</sup>

On October 17, 2017, PJM filed a stakeholder approved regulation market proposal to address market issues, including documenting the derivation of the RegD signal design and the MBF.

On March 30, 2018, the Commission rejected the PJM proposal and filed an order establishing a technical conference to address issues related to the PJM Regulation Market. In its Order, the Commission found (at P 102) “the PJM Tariff is unjust, unreasonable, unduly discriminatory, or preferential because it does not include the methodology for calculating the benefits factor (or other curve used to establish a common basis for clearing RegA and RegD megawatts in the Regulation market) and the parameters governing its

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<sup>10</sup> Comments of PJM Interconnection, L.L.C., Docket No. EL17-64, -65 (“PJM Aug. 9<sup>th</sup> Comments”).

<sup>11</sup> PJM Aug. 9<sup>th</sup> Comments at 2.

<sup>12</sup> *Id.*

RegD signal.”<sup>13</sup> The Commission found (*id.*) that ESA and RESA-ISD also raised other issues and directed a technical conference to “explore those issues.”

PJM on April 30, 2018, and the Market Monitor, on April 27, 2018, separately filed for rehearing.

On May 3, 2018, the Commission issued a notice of a technical conference. ESA, RESA-ISD and PJM motioned for appointment of settlement judge and postponement of the technical conference and the collection of additional information.

On May 18, 2018, the Complainants and PJM jointly submitted a request in Docket Nos. EL17-64-000 and EL17-65-000 that the Commission: (1) appoint a settlement judge to facilitate the resolution of the issues raised in the proceedings; and (2) postpone the technical conference that the Commission directed in the March 30, 2018, Order on Complaint and the collection of information in advance of the technical conference.

On May 30, 2018, the Commission issued an order granting the request for a settlement judge and to postpone the technical conference.<sup>14</sup> The May 30<sup>th</sup> Order established a settlement procedure to address issues associated with complaints made by ESA and Renewable Energy Systems Americas and Invenergy Storage Development LLC regarding PJM’s December 2016 changes to its MBF curve that capped RegD participation and PJM’s January 2017 changes to the RegD signal.<sup>15</sup> The Settlement proceeding was not intended, and should not be used, to address the fundamental market design issues raised in the PJM proposal filed on October 17, 2017. The proceeding was put in place to address the issues raised in the complaints: the documentation of the determination of the MBF curve and the signal design in the tariff and operating agreement.

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<sup>13</sup> See *Energy Storage Assoc. v. PJM, et al.*, 162 FERC ¶ 61,296.

<sup>14</sup> See *Energy Storage Assoc. v. PJM, et al.*, 163 FERC ¶ 61,157.

<sup>15</sup> *Id.*

On May 30<sup>th</sup>, the Commission issued an order establishing settlement procedures and postponing the technical conference.<sup>16</sup> The proceeding was limited to cover the issues raised in the complaints. The complaints challenged the reasonableness of changes PJM made as of January 9, 2017, to the RegD signal and the cap on cleared RegD MW. The complainants asked that PJM be required to revert to the Regulation D Signal methodology in effect prior to January 9, 2017. Fundamental market design issues or their resolution were outside of this proceeding's scope.

## II. STANDARD OF REVIEW

*Trailblazer II* summarizes (at 61,436 n.5) four approaches for the Commission to approve contested settlements: "Approach No. 1, where the Commission renders a binding merits decision on each of the contested issues; Approach No. 2, where approval of the contested settlement is based on a finding that the overall settlement as a package provides a just and reasonable result; Approach No. 3, where the Commission determines whether the benefits of the settlement out balance the nature of the objections, in light of the limited interest of the contesting party in the outcome of the case; and Approach No. 4, where the Commission approves the settlement as uncontested for the consenting parties, and severs the contesting parties to litigate the issues."

PJM argues that "[i]n light of the significant benefits and time-limited nature of the Settlement, this Settlement provides an acceptable outcome such that, even if the settlement is contested, approval is appropriate pursuant to Trailblazer Approach Nos. 1, 2, or 3,"<sup>17</sup> PJM argues that "[t]he benefits of the Settlement far outweigh the costs and potential effect of continued litigation."<sup>18</sup>

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<sup>16</sup> *Id.*

<sup>17</sup> Explanatory Statement at 4–5.

<sup>18</sup> *Id.* at 5.

The Market Monitor disagrees. There is no basis for the assertion that the proposed Settlement meets the standards of Trailblazer Approach Nos. 1, 2, or 3. There is no basis for the assertion that the so called benefits of the Settlement outweigh its very real costs.

### **III. ARGUMENT**

#### **A. The Settlement Cannot Be Approved Under Approach No. 1 Because None of Its Elements Are Shown to Have Merit.**

##### **1. The Proposed Settlement Discussion Does Not Address the issues Raised in the Complaint.**

The Settlement should be rejected because it is not confined to the scope of the relief requested in the complaint, does not address the issues raised in the complaint and does not address the Commission finding (at P 102) that “the PJM Tariff is unjust, unreasonable, unduly discriminatory, or preferential because it does not include the methodology for calculating the benefits factor (or other curve used to establish a common basis for clearing RegA and RegD megawatts in the Regulation market) and the parameters governing its RegD signal.”

ESA and RESA-ISD filed complaints requesting injunctive relief asking (at 3) that the Commission direct PJM to “file ...revisions to its Tariff that set forth the methodology by which PJM calculates the benefits factor,” “eliminate the Regulation procurement cap set forth in the PJM Manuals,” and “to file ... revisions to its Tariff that set forth the parameters governing the design of its Regulation D signal.” RESA-ISD requested (at 3) that the Commission “direct that PJM revert to using the original RegD signal, and, when PJM develops alternative procedures to address its concerns about surplus fast response supply, it should make a filing to codify its new procedures in its tariff.” Instead of addressing these issues, the Settlement is focused on subsidizing the complainants at the expense of other competitors in PJM’s regulation market and inflated cost for regulation service for PJM customers.

## **2. There is No Basis for a Settlement.**

Complainants failed to demonstrate, and the Commission did not find, that PJM acted outside of its authority in devising and implementing revised RegA and RegD signals. Complainants fail to demonstrate, and the Commission did not find, that the revised RegD signal was unduly discriminatory towards RegD resources or prevented these regulation resources from recovering their costs of service as offered. Complainants fail to demonstrate, and the Commission did not find, that PJM acted outside of its authority in revising its market rules to limit the purchase of RegD in order to maintain reliability.

PJM made changes to its regulation signals and the amount of RegA and RegD purchased, both changes that are within its current authority, in order to maintain reliable operation of the market. This amounted to changing dispatch instructions and the demand curves for regulation service in order to maintain reliable operation.

## **3. No Evidence Exists that PJM's Changes to its Regulation Signals Caused Unjust or Unreasonable Market Results.**

ESA asserts (at 15) that its members "have experience[d] significant reduction in their compensation." ESA also asserts (at 24) that "the new RegD signal is causing more lost revenue than the increase in mileage revenues." ESA also asserts (*id.*) that the new signal has caused its members increased costs and that the "increased costs serve to overwhelm any increase in the mileage revenues."

Such assertions, which are not true but even if true, provide no basis for a claim of harm caused by PJM's justifiable actions to maintain reliability. ESA's members provide no evidence to support the assertions regarding a loss in revenue and provide no basis for an assertion that, even if a particular loss of revenue could be documented, that it is unjust or unreasonable that such loss was sustained. ESA fails to show any PJM market rule that guarantees specific levels of revenues or margins.

On the contrary, markets such as those operated by PJM, specifically do not guarantee any level of revenue or specific margins and place such risks squarely on



suppliers.<sup>19</sup> ESA members have not produced a contract or agreement of any kind identifying a specific revenue stream or margin. Even if they had, a change in revenue or margin received from a market relative to expectations is not a basis for a claim of financial harm. Even if such a claim existed, no privity exists between ESA suppliers and PJM customers.

Even if ESA's assertions of reduced margins or total revenue were correct, which they are not, this is not evidence that such a market result is unjust and unreasonable. PJM did not change market rules regarding the determination of clearing price or settlement and it did not change what could or could not be included in the offer prices of regulation resources. PJM did not force complainants to offer their resources or to offer their resources at a loss. Complainants are responsible for their own offers. Complainants do not claim and do not demonstrate that as a result of the changes made by PJM to the regulation signals or to the amount of regulation cleared that they were unable to offer in their resources or submit offers that reflect their costs of providing regulation service.

Complainants did not address the fact that resources can reflect their costs in their offers and these offers include payment for movement (\$/mile). Complainants typically self-scheduled or offered their resources at \$0, including their offer for mileage. Market participants can reflect costs (plus adder) in their cost-based offer and they can provide price-based offers and, if cleared in the market, are guaranteed their offer or better. Market participants that cannot profit under these conditions are by definition uneconomic relative to their competitors.

The objective of an efficient market is to ensure a competitive price and not to guarantee profit margins or returns on investment. The objective of a competitive market is not to protect competitors; it is to promote competitive outcomes. The objective of PJM's

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<sup>19</sup> See, e.g., *Duke Energy Corp. v. FERC*, 892 F.3d 416 (2018); *Old Dominion Elec. Coop. v. FERC*, 892 F.3d 1223 (2018).

regulation market design is to minimize the cost to provide regulation via a combination of resources following two different signals (RegA signal and RegD signal) in a single, competitive and efficient market. The Settlement runs counter to this objective.

The Settlement, if approved will generate extra-market payments to resources that are party to the complaint. To provide the extra-market payments, PJM is proposing to clear the batteries in the market on the basis of their current performance score, but compensate the batteries on the basis of the, greater than or equal to, performance score they earned prior to the signal change. This payment will be made in every market hour where the battery offers its capacity, whether or not the battery clears and operates within the market hour. This will provide a subsidy to the batteries in the Settlement relative to all other competing RegD resources offered and cleared in the market. The subsidy will not only inappropriately reward existing batteries for nonperformance, it will inappropriately favor existing batteries over investment in new, next generation batteries. The subsidy will provide an opportunity for the subsidized batteries to invest in system upgrades, system replacements and increased capacity during the settlement period, providing a significant advantage over any competitor's unsubsidized resources. The Settlement, if approved, would provide an unjust and unreasonable market result, favoring the complainants over every other RegD supplier and require customers to overpay for regulation.

#### **4. The Revised Regulation Signals Are Consistent with the Physical Limits of RegD Resources.**

RESA-ISD (at 11) asserts, with no evidence, that PJM's new RegA and RegD signals result in market requirements that exceed the physical limitations of the energy storage resources. The assertion is false. The new regulation signals do not require resources to exceed their physical limits. In general, RegD resources have either adapted to the changes in the market by modifying their offer parameters (reductions in bid in capability to support longer duration injections and withdrawals) to improve their performance and/or have proven capable of longer duration operation.

PJM dispatch cannot damage a resource. If a resource is damaged, it is the responsibility of the resource owner. Resources are not forced or required to operate outside of their actual capability. Participation in the regulation market is voluntary on an hourly basis. The parameters offered and the response of a resource to a regulation signal is under the control of the resource owner. This is true of both RegA and RegD resources.

It is a fact that individual resources may, at times, not be able to follow the regulation signal exactly. This is true of both RegA and RegD resources. The allegation that their RegD resources are discriminated against (*see* ESA at 9) by being singled out and “being required to operate beyond their unit characteristics” is incorrect. The performance score tracks the actual performance of resources in following the signal.

Resource owners can change operational parameters to be consistent with the actual capability of resources to follow the defined dispatch signals. Resource owners can choose not to make offers during hours in which the resources are expected to be uneconomic. Resource owners can govern response to a dispatch signal so that the resource stays within its actual capability. These choices will affect the MW offered and the performance score associated with those MW. In addition, as batteries are mobile, battery owners can remove their batteries from the PJM market entirely at their discretion.

#### **5. PJM’s New RegD Signal Does Not Discriminate Against RegD Resources.**

ESA argues (at 9) that the new dispatch signal “severely and adversely affects only those RegD resources that had been designed specifically to rely on the original dispatch signal designed by PJM.” ESA states (*id.*) that the new signal “unduly discriminates against many RegD resources insofar as only they effectively are being required to operate beyond their unit characteristics in order to solve an operational issue.”

ESA has its facts wrong. No unit has ever been required to operate beyond its capabilities. ESA ignores the tradeoff between the stated capacity of a battery and the duration of energy neutrality. For a given battery, the lower the defined capacity in MW,

the longer the duration of energy neutrality. This is not a resource design issue. This is an issue about how to offer a resource into the market.

The new RegA and RegD signals do not discriminate against RegD resources. PJM redesigned the RegD signal to address a significant operational issue that resulted from the old signal. The new signal allows RegD to continue to provide regulation service at current, inefficient levels of RegD market participation. Rather than discriminate against RegD, the new signal requires RegA to support RegD. RegD as a class of resources is not being disadvantaged or discriminated against. RegD as a class is being accommodated, supported and subsidized. This is true for the specific subgroup of RegD resources represented by the ESA and RegD resources.

#### **6. Regulation Market Design Reform Was Expected.**

ESA asserts (at 23–24) that they had no way of knowing that PJM’s Regulation Market could be subject to significant structural changes at the time they made their investments. ESA asserts (*id.*) that had they known that the market design could change within the life cycle of their resources, they might not have entered the market when they did. ESA asserts (*id.*) “[h]ad there been the slightest reason to believe that PJM, less than two to three years later, would completely change its procedures and eviscerate the projects’ economics, they plainly would have taken this into account before designing their projects as they did, or even deciding to construct and invest in them.”

Before evaluating the merits of ESA’s assertion that it was caught off guard, it should be observed that, regardless of whether or not changes are expected, market participant must bear regulatory risks associated with rule changes. It is not tenable to require PJM to compensate participants for rule changes that upset participants’ expectations.

Contrary to its assertions, issues with PJM’s Regulation Market were publicly identified and reported in the same year the new market design was put in place in 2012 and in every year since then. The Market Monitor filed a protest identifying fundamental

market design issues with PJM's compliance filing of March 5, 2012.<sup>20</sup> In the 2012 Annual State of the Market Report for PJM (SOM), the Market Monitor noted the flawed market design that had been implemented and recommended that the regulation market be modified to incorporate a consistent application of the marginal benefit factor throughout the optimization, assignment and settlement process.<sup>21</sup> On October 2, 2013, the issues with the market design were exacerbated when PJM was directed to eliminate the use of the marginal benefit factor entirely from settlement calculations of the capability and performance credits and replace it with the RegD to RegA mileage ratio in the performance credit paid to RegD resources, effective retroactively to October 1, 2012.<sup>22</sup> The Market Monitor made clear the problems with the resulting market design at the time.<sup>23</sup> The issues with the market were repeated in every subsequent SOM from 2012 to the present, including explicit statements that RegD resources were being overpaid.<sup>24</sup>

The market design flaws introduced in 2012 and 2013 led directly to the issues with the regulation market which were brought before the PJM Operating Committee in May of 2015, and which ultimately led to the creation of the Regulation Market Issues Senior Task

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<sup>20</sup> See Protest of the Independent Market Monitor for PJM, Docket No. ER12-1204-000 (March 26, 2012).

<sup>21</sup> See *2012 State of the Market Report for PJM*, Vol. 2 (March 14, 2013) at 272.

<sup>22</sup> *PJM Interconnection, L.L.C.*, 145 FERC ¶ 61,011 (2013).

<sup>23</sup> See Comments of the Independent Market Monitor for PJM, Docket Nos. ER12-1204-001, -002 and ER12-2391-000 (February 5, 2013).

<sup>24</sup> The MBF function is not correctly defined as the MRTS between RegA and RegD and it is not consistently applied throughout the market design, from optimization to settlement. The result has been that the PJM Regulation Market has over procured RegD relative to RegA in most hours and has provided a consistently inefficient market signal to participants regarding the value of RegD to the market in every hour. This over procurement began to degrade the ability of PJM to control ACE in some hours while at the same time increasing the cost of regulation. When the price paid for RegD is above the level defined by an accurate MBF function, there is an artificial incentive for inefficient entry of RegD resources. See *2017 Quarterly State of the Market Report for PJM: January through March*, (May 11, 2017) at 420.

Force purposed with addressing the observed market design and operational issues.<sup>25</sup> The Market Monitor and PJM have repeatedly raised the issues with the regulation market design in that stakeholder process.

The issues with the regulation market design have been well documented from the beginning. ESA's claim to be surprised is implausible and unsupported.

#### **7. The Settlement Does Not Return the Market Results to the Status Quo Prior to PJM's Changes to the Regulation Signal.**

The fundamental demand of the complainants was that PJM return the market to the status quo that existed prior to January 9, 2017. Complainants wanted a return to the original signal and a removal of the cap on RegD participation. PJM argues that the Settlement effectively "preserves the status quo that had been in place prior to PJM's January 9, 2017 implementation of changes to the Regulation D Signal methodology." The basis of this argument appear to be that complainant resources will have offer MW and performance scores based on pre-January 9, 2017, values (Settlement at 14). It is implied that the affected RegD resources would be just as well off under the Settlement term as they were pre-January 9, 2017. This is not the case. The Settlement terms will provide compensation in excess of what was available under pre-January signal design to the affected RegD resources and will unreasonably inflate costs to regulation customers.

The proposed settlement states that PJM "will compensate the Affected Batteries for participation in the Regulation market utilizing the greater of (i) the Affected Battery's current five-minute interval performance score, or (ii) the Affected Battery's resource specific rolling average actual hourly performance score for the last 100 hours a resource operated prior to the January 9, 2017 implementation of the 30-minute conditional neutrality of PJM's frequency regulation signal (the "Historic Performance Score")."

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<sup>25</sup> Regulation Performance Impacts, PJM Operating Committee, (May 26, 2015), which can be accessed at: <<http://www.pjm.com/committees-and-groups/committees/oc.aspx>>.

(Settlement at 14). This means that in the case where the historic performance scores exceeds the actual performance score, the affected RegD resource will be over compensated relative to its actual RegD MW supplied from non-affected RegD MW. This subsidized advantage did not exist in the market prior to January 9, 2017.

In addition, the Settlement allows for affected RegD resource to be paid for RegD service even if they do not clear the market. This goes well beyond compensation as it occurred under the pre-January 9, 2017 PJM Regulation Market.

In addition to this, the new RegA and RegD signal results in mileage ratios, used to over compensate Regd resources under the current market rules, that are significantly higher than what occurred under the pre-January 9, 2017, signal design. This means that affected RegD resources will be compensated more under the current signal design than under the old signal design, while being able to take advantage of an inflated performance score from the old signal design.

**B. The Settlement Cannot Be Approved Under Approach No. 2 Because the Overall Result Is Not Just and Reasonable.**

PJM argues “[i]n light of the significant benefits and time-limited nature of the Settlement, this Settlement provides an acceptable outcome such that, even if the settlement is contested, approval is appropriate pursuant to Trailblazer Approach Nos. 1, 2, or 3” (PJM at 4–5) In support of this, PJM asserts “[t]he benefits of the Settlement far outweigh the costs and potential effect of continued litigation.”<sup>26</sup> PJM argues that “[t]he benefits of the Settlement outweigh the costs because the Settlement:

(a) is time-limited to only three-and-a-half years; (b) effectively preserves the status quo that had been in place prior to PJM’s January 9, 2017 implementation of changes to the Regulation D Signal methodology; (c) facilitates continued participation in PJM by energy storage resources, which are emerging technologies; (d) contains conditions and limitations

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<sup>26</sup> Explanatory Statement at 5.

on Settling Parties' participation in the Regulation D market that will contribute to PJM's efforts to continue to control Area Control Error during the Settlement Term; (e) will be included as an attachment to the Tariff, thus making it consistent with the Commission's directive that any changes to the Regulation D Signal methodology be set forth in the Tariff; (f) avoids significant costs of continued litigation; and (g) permits PJM to propose (and interested parties to comment on forward-looking changes and improvements to its Regulation service under section 205 of the FPA during the Settlement Term while also honoring the terms of the Settlement."

There is no basis for the assertion that the Settlement has any benefit to any parties other than the affected batteries and that there would be cost savings to the market that would be lost absent the Settlement. There is further no basis for the assertion that, absent the Settlement, there would be a delay in any meaningful reform of the currently flawed regulation market design. There is no basis for the assertion that (a) the time limit of three and half years is beneficial relative to no settlement with zero term duration, (b) that the preservation of the status quo is beneficial, (c) that the energy storage resources would not participate in PJM's regulation market but for this Settlement, (d) that the conditions and limitations of the settling participants participation will contribute in a beneficial way to PJM's effort maintain system control, (e) that documentation of the RegD signal would not occur absent this Settlement, (f) that this settlement avoids significant costs of continued litigation or (g) that the settlement was needed to make the needed market reforms to the regulation market. Not one of the listed benefits constitutes a benefit to the opposing parties or the market generally.

Due to the lack of benefit, and the credible detriments to regulation market and opposing parties, there is no basis for the assertion that the Settlement is appropriate pursuant to Trailblazer Approach Nos. 1, 2, or 3 as asserted by PJM.



## **1. The Time Limit of Three and a Half Years Is Not a Benefit.**

PJM argues that the time limit of the Settlement of only three and a half years is a benefit. There is no basis to this assertion.

During the three and a half year period the affected batteries will be subsidized relative to batteries that are not part of the Settlement, for providing the same service. The Settlement only distorts the market in favor of the affected batteries and provides them with a competitive advantage in the form of increased revenues, at the regulation purchaser's expense, over batteries that are not part of the Settlement.

The duration of the Settlement renders moot any market reforms that would be developed and implemented during the Settlement term. Even in the absence of a signal or a mechanism to clear RegD as a service, the Settlement requires that PJM pay the resources as though they were providing a service at a subsidized rate. The Settlement would effectively prevent reform for 3.5 years.

If a time limit is a benefit, then the shorter the limit the better, and a complete elimination of the term (zero duration) of the Settlement would maximize the benefit.

## **2. The Settlement Does Not Effectively Preserve the Status Quo.**

The fundamental demand of the complainants was that PJM return the market to the status quo that existed prior to January 9, 2017. Complainants wanted a return to the original signal and a removal of the cap on RegD participation. PJM argues that the Settlement effectively "preserves the status quo that had been in place prior to PJM's January 9, 2017 implementation of changes to the Regulation D Signal methodology." The basis of this argument appear to be that complainant resources will have offer MW and performance scores based on pre-January 9, 2017 values (Settlement at 14). It is implied that the affected RegD resources just as well off under the Settlement term as they were pre-January 9, 2017. This is not the case. The Settlement terms will provides compensation over and above what was available under pre-January signal design to the affected RegD resources, while requiring less actual regulation service from the affected RegD resources

than what occurred under pre-January 2017 market rules, and all this will be possible through unreasonably inflated costs to regulation customers. The benefits of this supposed status quo do not exceed the costs.

The Settlement states that PJM “will compensate the Affected Batteries for participation in the Regulation market utilizing the greater of (i) the Affected Battery’s current five-minute interval performance score, or (ii) the Affected Battery’s resource specific rolling average actual hourly performance score for the last 100 hours a resource operated prior to the January 9, 2017 implementation of the 30-minute conditional neutrality of PJM’s frequency regulation signal (the “Historic Performance Score”).” (Settlement at 14). This means that in the case where the historic performance scores exceeds the actual performance score, the affected RegD resource will be over compensated relative to its actual RegD MW supplied from non-affected RegD MW. This subsidized advantage did not exist in the market prior to January 9, 2017.

In addition, the Settlement allows for affected RegD resource to be paid for RegD service even if they do not clear the market. This goes well beyond compensation as it occurred under the pre-January 9, 2017 PJM regulation market.

In addition to this, the new RegA and RegD signal results in mileage ratios, used to over compensate Regd resources under the current market rules, are significantly higher than what occurred under the pre-January 9, 2017 signal design. This means that affected RegD resources will be compensated more under the current signal design than under the old signal design, while being able to take advantage of an inflated performance score from the old signal design.

### **3. The Settlement Does Not Facilitate Continued Participation in PJM by Energy Storage Resources.**

PJM argues that the Settlement “facilitates continued participation in PJM by energy storage resources, which are emerging technologies.”<sup>27</sup> There is no basis for this statement, either in the assertion that absent this Settlement energy storage resources would be unable to participate in PJM regulation market or in the assertion that the affected energy storage resources are an emerging technology.

PJM provides no evidence that its market or signal design since January 2017 has prevented participation by storage resources. The evidence, as presented in the SOM report for 2017, 2018 and the first quarter of 2019, runs directly counter to this assertion. PJM’s market and signal design have not prevented participation by energy storage resources.<sup>28</sup> The affected resources of the affected parties continued to participate in the market throughout the negotiating period, which is a clear indication that the Settlement was not needed for continued and active participation by energy storage resources. Further, RegD resources of non-affected parties have participated throughout the same time period.

PJM provides no evidence that the affected resources represent emerging technologies or that protecting the affected technologies provide a benefit. The affected resource owners have claimed all along that their resources are old technology, designed for 15 minute strict neutrality signal, and not capable of providing 30 minute conditional neutral signal that PJM introduced in January of 2017. If true, then the Settlement will merely subsidize old, inefficient energy storage at the expense of customers and of current and potential investors in innovative new energy storage technologies that are currently competing directly with the affected resources in the PJM regulation market.

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<sup>27</sup> Explanatory Statement at 5.

<sup>28</sup> See the 2017 State of the Market Report for PJM; See also the 2018 State of the Market Report for PJM; see also the 2019 Quarterly State of the Market for PJM: January through March which can be accessed <[http://www.monitoringanalytics.com/reports/PJM\\_State\\_of\\_the\\_Market/2019.shtml](http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2019.shtml)>.

The Settlement does not facilitate continued participation in PJM by energy storage resources. The Settlement will not encourage investment in new energy storage technologies better able to meet PJM's signal design. The Settlement only serves to subsidize a subset of energy storage resources, creating an inefficient advantage to these resources relative to other participants during the term of the Settlement while increasing the costs to regulation customers.

**4. The Settlement Does Not Contain Conditions and Limitations on Settling Parties' Participation in the Regulation D Market that Will Contribute to PJM's Efforts to Continue to Control Area Control Error During the Settlement Term.**

PJM argues that the Settlement "contains conditions and limitations on Settling Parties' participation in the Regulation D market that will contribute to PJM's efforts to continue to control Area Control Error during the Settlement Term." There is no basis for the assertion that the conditions or limitations on settling parties participation will contribute to system control. The conditions and limitations only states a resource must keep its rolling 100 hour average performance score under the current signal falls within 7 percentage points of its established baseline performance score (also set according to performance under the current RegD signal) in order to be eligible for subsidized payments under the settlements. The actual clearing of the resource will be based on its actual performance score, which will not affect its eligibility for payment whether or not the resource clears. The conditions and limitations therefore have no effect on system control, only on eligibility for subsidies under the agreement.

**5. Including the Method for the Determination of RegD in an Attachment to the Tariff Is Not a Benefit Created by the Settlement.**

PJM argues that one of the benefits of the Settlement will be that that methodology for determining the RegD signal will be included as an attachment to the Tariff, thus "making it consistent with the Commission's directive that any changes to the Regulation D Signal methodology be set forth in the Tariff." As noted by PJM's this outcome is not a result of the Settlement and it not an issue that was reserved for the Settlement to consider.

PJM was required by the Commission to document the methodology to determine the regulation D signal in the tariff, apart from this Settlement.

**6. There Is No Basis for the Assertion that the Settlement Avoids Significant Costs of Continued Litigation.**

PJM argues that one of the benefits of the proposed Settlement is that it will “avoid significant costs of continued litigation.” There is no basis for this assertion.

Complainants failed to demonstrate, and the Commission did not find, that PJM acted outside of its authority in devising and implementing revised RegA and RegD signals. Complainants fail to demonstrate, and the Commission did not find, that the revised RegD signal was unduly discriminatory towards RegD resources or prevented these regulation resources from recovering their costs of service as offered. Complainants fail to demonstrate, and the Commission did not find, that PJM acted outside of its authority in revising its market rules to limit the purchase of RegD in order to maintain reliability.

PJM made changes to its regulation signals and the amount of RegA and RegD purchased, both changes that are within its current authority, in order to maintain reliable operation of the market. This amounted to changing dispatch instructions and the demand curves for regulation service in order to maintain reliable operation.

There is no basis for a Settlement, let alone a basis for litigation.

What Settlement will do, if approved, is create a precedent that any changes to market operations that may adversely affect the expected revenues of market participants are actionable by those participants, regardless of the demonstrated need for the changes to maintain system reliability and of the authority of the system operator to make those changes.

**7. The Settlement Does Not Enable PJM to Propose Forward-Looking Changes and Improvements to Its Regulation Service Under Section 205 of the FPA.**

PJM argues that the terms of the Settlement “permit PJM to propose forward-looking changes and improvements to its Regulation service under section 205 of the FPA during the Settlement Term while also honoring the terms of the Settlement.” PJM is that the Settlement will facilitate regulation reforms due to the Settlement provision for subsidized payments to continue to the affected resources, even if the regulation market undergoes an overhaul that would eliminate the RegD signal and the mileage ratio. PJM is arguing that this is benefit that outweighs any costs of the Settlement. There is no basis for these assertions.

PJM has the authority to pursue and propose “forward-looking changes and improvements to its Regulation service under section 205 of the FPA” without the proposed Settlement. The subsidized payments to affected resources that inescapable regardless of market design reforms during the term of the Settlement will not facilitate any effort to pursue forward-looking changes and improvements to its Regulation service. The subsidy payments will only increase the costs of regulation during the term. Even if PJM was to adopt a one signal market design, PJM would be, under the terms of the Settlement, be required to continue to pay the affected resources as though the resources were still providing RegD regulation until the end of the Settlement term. PJM and customers would be better off making sure that the subsidized service from the affected resources were fully utilized to its best effect, rather than just tacked on the cost of regulation service under a reformed market structure.

**C. The Settlement Cannot Be Approved Under Approach No. 3.**

There is no basis for the assertion that the settlement agreement has any benefit to any parties other than the affected batteries and that there would be cost savings to the market would be lost absent the settlement.

### **1. PJM Is Negotiating with Other Party's Money.**

Parties who would pay any assessments supporting monetary relief are mostly unrepresented in this proceeding. The Market Monitor, for example, represents the public interest in competitive markets, but does not represent electricity consumers and is not in a position to determine how much customers are willing to pay to obtain a settlement. The complaints requested injunctive relief and did not provide notice that that relief other than injunctive, prospective relief could result. It is unreasonable for PJM to enter into settlements that avoid the issues raised in the proceeding but require customers to pay.

### **2. Because the Settlement Is One-Sided, Giving PJM Customers Nothing, the Overall Result Cannot Be Found Just and Reasonable.**

In return for overcompensation, a competitive edge against their competition and locking PJM into the current signal design for three years, the suppliers agree to withdraw the complaint and not oppose a PJM proposal to go to a single signal. Suppliers offer nothing of substantive value to PJM or PJM customers. Suppliers can continue to participate in the stakeholder process without limitation. Suppliers may protest any aspect of the market design at the Commission, including the signal design itself, other than reliance on a single signal. Suppliers can continue to undermine the development of an efficient market design at every stage of the development process. Suppliers can continue to object to the market design because it is technology neutral and does not favor their specific technology by accounting for their technology's unsubstantiated value to providing regulation. The overall Settlement result cannot be found just and reasonable when PJM customers are required to make significant payments to certain suppliers and receive nothing, directly or indirectly, in return.

### **3. The Settlement Sets Bad Precedent.**

The Settlement, if approved, would set a bad precedent that PJM will agree to pay market participants who assert damages resulting from changes to market rules, where PJM followed the process for changing the rules.

**D. The Settlement Cannot Be Approved Under Approach No. 4 Because the Issues Cannot Be Severed.**

The Settlement is contrary to the public interest, and, in particular, contrary to the public interest in efficient well designed competitive markets in PJM that the Market Monitor is charged to protect and promote. The Market Monitor objects to every aspect of the Settlement. Whether considered on the merits of each element or overall, the Settlement is utterly unsupported. The Settlement contradicts the goals of efficient and competitive markets, undermines the stakeholder process and effective regulatory oversight and represents a bad bargain for the customers who are forced to pay for it while receiving nothing in return. Because the issues cannot be severed, the Settlement should not be approved for lack of merit.



#### IV. CONCLUSION

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

Respectfully submitted,



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Dated: May 13, 2019

## 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 13<sup>th</sup> day of May, 2019.



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