

**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)

**REPLY COMMENTS OF THE
INDEPENDENT MARKET MONITOR FOR PJM**

Pursuant to Rule 602(f) of the Commission’s Rules and Regulations,¹ Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM Interconnection, L.L.C. (“PJM”) (“Market Monitor”),² submits these comments in reply to comments filed by Invenergy Storage Development LLC (“Invenergy”) on May 13, 2019, in support of the Settlement Agreement and Offer of Settlement filed on April 23, 2019, by PJM on behalf of itself and parties comprised of electric storage interests (“Settlement”).³

¹ 18 CFR § 385.602(f) (2018).

² Capitalized terms used herein and not otherwise defined have the meaning used in the PJM Open Access Transmission Tariff (“OATT”), the PJM Operating Agreement (“OA”) or the PJM Reliability Assurance Agreement (“RAA”).

³ 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”).

I. COMMENTS

Invenergy argues (at 5) that a settlement is justified because “PJM committed a serious error in implementing unilateral changes to the regD signal.” According to Invenergy (at 3), the substance of PJM’s apparent error was not that the PJM exercised authority it did not have under the tariff to maintain system reliability, but that the changes that PJM made within its established authority “increased Invenergy’s production costs and caused severe and unremedial [sic] damage to its equipment” and did not cause similar effects on “other types of generation.” Invenergy argues (at 4) that the settlement mitigates PJM’s error by providing “what is essentially a three and half year lock-in of the existing market rules, including continued exposure to the current 30-minute conditionally neutral signal.” Invenergy argues (at 4) that “[h]ad this limited window of market and operational stability been provided originally, the physical and financial damages at hand may have been avoided.” But Invenergy fails to provide any evidence of the asserted physical or financial damages, which would be irrelevant even if proven.

A. Invenergy Provides No Basis for a Settlement.

Invenergy fails to demonstrate and does not assert that PJM acted outside of its authority in devising and implementing revised RegA and RegD signals.⁴ Invenergy fails to demonstrate that the revised RegD signal (and RegA signal) was discriminatory towards RegD resources or prevented these regulation resources from recovering their costs of service as offered. Invenergy fails to demonstrate and does not assert that PJM acted outside of its authority in revising its market rules to limit the purchase of RegD in order to maintain reliability.

⁴ See Protest of the Independent Market Monitor for PJM, Docket No. EL17-64-000 et al., (May 13, 2019) at 7–14.

PJM made changes to its regulation signals and the amount of RegA and RegD purchased in order to improve the efficiency and reliability of the Regulation Market. Both changes were and are within PJM's authority. PJM changed the dispatch instructions and the demand curves for regulation service in order to improve the efficiency and reliable operation of the market. It would be inconsistent with competitive and reliable markets and thus harm the public interest to set a precedent that when PJM makes such operational changes PJM will compensate alleged third party grievances using PJM customers' money.

Assertions of changes in realized or expected revenue or margins caused by changes in dispatch and demand provide no basis for a claim of harm. Invenergy provides no evidence to support the assertions that a loss in expected revenue or margin is unjust or unreasonable. Invenergy did not and cannot cite to any PJM market rule that guarantees specific levels of revenues or margins. On the contrary, PJM markets and other RTO/ISO wholesale power markets specifically do not guarantee any level of revenue or specific margins and place such risks squarely on suppliers.⁵ Invenergy has not produced and cannot produce a contract or agreement of any kind identifying a specific revenue stream or margin, or a guarantee of a specific level of demand or signal design. A change in revenue or margin received from a market relative to expectations is not a basis for a claim of financial harm. No privity exists between Invenergy and PJM customers.

B. Invenergy Fails to Support Subsidy Payment to the Settling Resources.

Invenergy provides no basis for a subsidy payment as a part of settlement. Invenergy characterizes the settlement (at 4) "as essentially a three and half year lock-in

⁵ See, e.g., *Duke Energy Corp. v. FERC*, 892 F.3d 416 (2018); *Old Dominion Elec. Coop. v. FERC*, 892 F.3d 1223 (2018).

of the existing market rules, including continued exposure to the current 30-minute conditionally neutral signal.” Invenenergy argues (at 4) that “[h]ad this limited window of market and operational stability been provided originally, the physical and financial damages at hand may have been avoided.” Invenenergy provides no evidence of physical or financial harm.

PJM did not force complainants to offer their resources or to offer their resources at a loss. Invenenergy is responsible for its own offers. Invenenergy does not claim and does not demonstrate that as a result of the changes made by PJM to the regulation signals or to the amount of regulation cleared, that Invenenergy was unable to offer in their resources or to submit offers that reflected their costs of providing regulation service. Invenenergy does not address the fact that resources can reflect their costs in their offers and these offers include payment for movement (\$/mile). If the new signal design caused an increase in the incremental cost of providing service, Invenenergy could and should have reflected the changes in incremental costs in their incremental offers. Market participants can reflect costs (plus an adder) in their cost-based offer and they can provide price-based offers and, if cleared in the market, receive their offer or more. Market participants that cannot profit under these conditions are by definition uneconomic and noncompetitive.

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 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 require load to make out of market payments to resources that are party to the Settlement. To provide the out of market payments, PJM

is proposing to clear the offers of the designated batteries in the market on the basis of their current performance score, but to compensate the batteries on the basis of the greater of the current performance score or the performance score they earned prior to the signal change. This payment will be made in every market hour in which the battery offers its capacity, whether or not the battery clears and whether or not the battery actually operates within the market hour!

The result would be an unwarranted and unsupported subsidy to the batteries that are included in the Settlement relative to all other competing RegD resources offered and cleared in the market and to all RegA resources. 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 competitors' 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.

C. Invenergy Fails to Support Assertions that PJM Dispatch Harmed Their Resources.

Invenergy asserts (at 3) that the PJM signal design change from a 15 minute strict energy neutral signal to a 30 minute conditionally neutral signal caused severe damage to its equipment. No evidence supports this claim.

But, surprisingly, Invenergy also argues that the Settlement mitigates the effect of the signal design change by providing "what is essentially a three and half year lock-in of the existing market rules, including continued exposure to the current 30-minute conditionally neutral signal." Invenergy does not explain how the 30 minute conditionally neutral signal caused severe damage to Invenergy's equipment prior to

the Settlement, but exactly the same signal will not cause severe damage to Invenergy's equipment during the three and half year period of the Settlement.

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.

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.

D. The Assertion that the Change in Signal Design Inappropriately Affected Storage Projects Is Unsupported.

Invenergy asserts (at 3) that "the signal changes disproportionately affected storage projects insofar as PJM did not require other types of generators to operate outside their design parameters." That assertion is meaningless. PJM did not modify dispatch in order to discriminate against RegD resources. The fact that the improvements in the efficiency of the market affected RegD resources indicates only that the prior design had been discriminating against RegA resources. Invenergy fails to

recognize or admit the actual reasons that PJM modified the RegD signals. To do so would reveal that Invenergy's claim is entirely without merit.

The new RegA and RegD signals do not discriminate against RegD resources. PJM redesigned the RgD signal to address a significant operational issue. PJM could not control Area Control Area (ACE) because RegD resources were following the old RegD signal. That RegD signal, due to the strict 15 minute neutrality, frequently resulted in RegD resources operating in the opposite direction needed by PJM dispatch. 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 discriminates in favor of RegD as it 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 Invenergy and RegD resources.

II. CONCLUSION

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

Respectfully submitted,



Jeffrey W. Mayes

Joseph E. Bowring
Independent Market Monitor for PJM
President
Monitoring Analytics, LLC
2621 Van Buren Avenue, Suite 160
Eagleville, Pennsylvania 19403
(610) 271-8051
joseph.bowring@monitoringanalytics.com

General Counsel
Monitoring Analytics, LLC
2621 Van Buren Avenue, Suite 160
Eagleville, Pennsylvania 19403
(610) 271-8053
jeffrey.mayes@monitoringanalytics.com

Howard J. Haas
Chief Economist
Monitoring Analytics, LLC
2621 Van Buren Avenue, Suite 160
Eagleville, Pennsylvania 19403
(610) 271-8054
howard.haas@monitoringanalytics.com

Dated: May 23, 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 23rd day of May, 2019.



Jeffrey W. Mayes

General Counsel

Monitoring Analytics, LLC

2621 Van Buren Avenue, Suite 160

Eagleville, Pennsylvania 19403

(610)271-8053

jeffrey.mayes@monitoringanalytics.com