ORAL ARGUMENT HAS NOT YET BEEN SCHEDULED

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 24-1092

ENERGY HARBOR LLC,
Petitioner,

v.

FEDERAL ENERGY REGULATORY COMMISSION,
Respondent.

On Petitions for Review of Orders of the
Federal Energy Regulatory Commission

BRIEF FOR INTERVENOR PJM INTERCONNECTION, L.L.C. IN SUPPORT OF RESPONDENT

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Dated: October 11, 2024

CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

A. Parties and Amici

The parties before this Court are identified in the Certificate as to Parties, Rulings, and Related Cases set forth in the Brief of Petitioner Energy Harbor LLC ("Energy Harbor"). Brief of Petitioner Energy Harbor LLC, *Energy Harbor LLC v. FERC*, No. 24-1092 (D.C. Cir. Aug. 2, 2024) ("Petitioner Br.").

B. Rulings Under Review

1. *Energy Harbor LLC v. PJM Interconnection, L.L.C.*, Order Denying Complaint, Docket No. EL23-63-000, 185 FERC ¶ 61,203 (Dec. 19, 2023) (R.182, JA____-JA____); and

2. *Energy Harbor LLC v. PJM Interconnection, L.L.C.*, Notice of Denial of Rehearing by Operation of Law, Docket No. EL23-63-004, 186 FERC ¶ 62,070 (Feb. 20, 2024) (R.187, JA____).

C. Related Cases

This case has not previously been before this Court or any other court. Counsel is not aware of any other related cases within the meaning of D.C. Circuit Rule 28(a)(1)(C).

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CORPORATE DISCLOSURE STATEMENT

PJM Interconnection, L.L.C. ("PJM") is a limited liability company organized and existing under the laws of the State of Delaware.

PJM is a regional transmission organization for all or portions of Delaware, the District of Columbia, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia. PJM is authorized by Respondent Federal Energy Regulatory Commission ("FERC") to administer an Open Access Transmission Tariff ("Tariff"), provide transmission service under the Tariff on the electric transmission facilities under PJM's control, operate an energy and other markets, and otherwise conduct the day-to-day operations of the bulk power system of a multi-state electric control area. PJM was approved by FERC first as an independent system operator and then as a regional transmission organization. *See Pennsylvania-New Jersey-Maryland Interconnection*, 81 FERC ¶ 61,257 (1997), *reh'g denied*, 92 FERC ¶ 61,282 (2000), *modified sub nom. Atl. City Elec. Co. v. FERC*, 295 F.3d 1 (D.C. Cir. 2002); *PJM Interconnection, L.L.C.*, 101 FERC ¶ 61,345 (2002).

PJM has no parent companies. Under Delaware law, the members of a limited liability company have an "interest" in the limited liability company. *See* Del. Code Ann. tit. 6, § 18-701 (2024). PJM members do not purchase their interests or otherwise provide capital to obtain their interests. Rather, the PJM members'

interests are determined pursuant to a formula that considers various attributes of the member, and the interests are used only for the limited purposes of: (1) determining the amount of working capital contribution for which a member may be responsible in the event financing cannot be obtained;[1] and (2) dividing assets in the event of liquidation. PJM is not operated to produce a profit, has never made any distributions to members, and does not intend to do so (absent dissolution). In addition, "interest" as defined above does not enter into governance of PJM and there are no individual entities that have a 10% or greater voting interest in the conduct of any PJM affairs.

Respectfully submitted,

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[1] Under the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C., the amount of capital contributions received from all PJM members combined is capped at $5,200,000. PJM generally finances its working capital requirements.

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TABLE OF AUTHORITIES

*** The cases principally relied upon are noted with an asterisk.**

GLOSSARY

Add.	Addendum of PJM, attached to this brief
Energy Harbor	Energy Harbor LLC
FERC	Federal Energy Regulatory Commission
FERC Add.	Addendum of Respondent FERC
FERC Br.	Brief of Respondent Federal Energy Regulatory Commission, *Energy Harbor LLC v. FERC*, No. 24-1092 (D.C. Cir. Oct. 4, 2024)
Denial Notice	*Energy Harbor LLC v. PJM Interconnection, L.L.C.*, Notice of Denial of Rehearing by Operation of Law, Docket No. EL23-63-004, 186 FERC ¶ 62,070 (Feb. 20, 2024) (R.187, JA____).
JA	Joint Appendix
Order	*Energy Harbor LLC v. PJM Interconnection, L.L.C.*, Order Denying Complaint, Docket No. EL23-63-000, 185 FERC ¶ 61,203 (Dec. 19, 2023) (R.182, JA____-JA____)
P	Paragraph number in a FERC order
Petitioner	Energy Harbor LLC
Petitioner Br.	Brief of Petitioner Energy Harbor LLC, *Energy Harbor LLC v. FERC*, No. 24-1092 (D.C. Cir. Aug. 2, 2024)
PJM	PJM Interconnection, L.L.C.
Reliability Agreement	PJM Reliability Assurance Agreement Among Load Serving Entities in the PJM Region
Respondent	Federal Energy Regulatory Commission
R.	Record

Sammis	Energy Harbor's W.H. Sammis
Tariff	PJM Open Access Transmission Tariff

INTRODUCTION

During Winter Storm Elliott, on December 23-24, 2022, the region administered by PJM Interconnection, L.L.C. ("PJM") experienced capacity emergency conditions, requiring resources with capacity commitments (and receiving capacity payments) to provide energy or pay Non-Performance Charges. Energy Harbor LLC ("Energy Harbor") failed to perform consistent with its obligation to provide energy during emergency conditions. Specifically, Energy Harbor's W.H. Sammis ("Sammis") resource suffered two forced (i.e., unplanned and unapproved) outages during this period, preventing it from performing up to the required performance level.

As a result, in accordance with the PJM Open Access Transmission Tariff ("Tariff"), PJM properly assessed Energy Harbor Non-Performance Charges, the revenues of which are then paid to owners of resources that over-performed during the emergency condition. Energy Harbor complained that it should not be assessed such charges to the extent a portion of its Sammis resource was on a maintenance outage. Energy Harbor pointed to a Tariff provision that excused Non-Performance Charges "to the extent such Capacity Resource … was unavailable during such Performance Assessment Interval solely because the resource on which such Capacity Resource … is based was on a Generator Planned Outage or Generator Maintenance Outage." Tariff, Attachment DD, section 10A(d) (FERC Add. B-4).

Energy Harbor's complaint fails for the simple reason that, even considering the megawatts on maintenance outage, Energy Harbor should have had sufficient capacity to perform in accordance with its capacity commitment. Rather, it was the megawatts that were unavailable because the underlying resource was on forced outage that prevented it from performing up to its committed capacity level. Thus, the maintenance outage was not the sole cause the Capacity Resource was unavailable. Accordingly, the Court should uphold Federal Energy Regulatory Commission's ("FERC") order affirming PJM's determinations.

BACKGROUND

PJM "operates the largest competitive wholesale electricity market in the country," covering all or part of thirteen states and the District of Columbia, "from the Eastern Seaboard as far south as North Carolina and as far west as Chicago." *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,331, at P 2 (2006), *order on reh'g*, 119 FERC ¶ 61,318 (2007). "PJM is responsible for ensuring the reliability of the system it operates …." *Id.* at P 8. PJM's wholesale energy market "provid[es] for a more efficient sharing of resources and enabl[es] parties to more easily access the cheapest sources of electricity," *id.* at P 2, but, by itself, does not address long-term reliability of service. "To protect customers" served by the PJM regional energy market "against the possibility of losing service, PJM is responsible for ensuring that its

system has sufficient generating [and demand response] capacity to meet its reliability obligations." *Id.*

PJM uses capacity auctions "to ensure an adequate long-term supply of electricity." *NRG Power Mktg., LLC v. FERC*, 862 F.3d 108, 111 (D.C. Cir. 2017). In the auctions, PJM procures Capacity Resources sufficient to meet applicable reserve requirements. A "Capacity Resource" is composed of megawatts, supported by physical resources, such as generation units. PJM Reliability Assurance Agreement Among Load Serving Entities in the PJM Region ("Reliability Agreement"), Article 1 – Definitions (Add. A-1) ("'Capacity Resources' shall mean megawatts of [] net capacity from" a generation resource). PJM does not procure specific physical resources to provide capacity. Capacity sellers are free to develop offers to provide capacity based on all or a portion of a physical resource, and are free to bundle several physical generator units together to support a singular Capacity Resource (subject to certain physical locational requirements). The capacity PJM procures is on an "unforced" basis, which is the installed capacity of the physical resource(s) "discounted or 'de-rated' by its forced outage rate (or equivalent forced outage rate demand . . .)." *Keyspan-Ravenswood, LLC v. FERC*, 474 F.3d 804, 807 (D.C. Cir. 2007); *see also id.* at 806-08 (explaining the need for and means of translating installed capacity to unforced capacity).

In exchange for receiving capacity payments for every day of the 12-month capacity commitment period (known in PJM as the "Delivery Year") to deliver the capacity and reliability they are paid to provide, the Tariff provides that, in emergency conditions, underperforming Capacity Resources face stringent Non-Performance Charges. All revenues collected as Non-Performance Charges are subsequently paid as bonus payments to owners of any over-performing resources during the emergency conditions. Specifically, for the period when certain PJM-declared Emergency Actions are in effect (known as Performance Assessment Intervals), the Tariff requires PJM to assess Non-Performance Charges when a Capacity Resource underperforms. *See* Tariff, Attachment DD, section 10A(c) (FERC Add. B-1). FERC found that Non-Performance Charges will "act as a strong incentive for performance," *PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,157, at P 72 (2016), explaining that "if and to the extent [a Capacity Resource] fails to perform during an emergency, when it is most needed, it is appropriate that the compensation for that resource be reduced and possibly entirely forfeited." *Id.* at P 29.

There are only two excuses from Non-Performance Charges, and they are "strictly circumscribed." *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,208, at P 167 (2015). Specifically, a resource's performance shortfall may be excused only to the extent the shortfall resulted solely from a PJM-approved Generator Planned Outage

or Generator Maintenance Outage or the resource "was not scheduled to operate by [PJM], or was online but was scheduled down, by [PJM], based on a determination by [PJM] that such scheduling action was appropriate to the security-constrained economic dispatch of the PJM Region." Tariff, Attachment DD, section 10A(d) (FERC Add. B-4).

Thus, any outage that is not a Generator Planned Outage or Generator Maintenance Outage cannot provide the basis for an excuse from Non-Performance Charges. That is, a resource owner is assessed Non-Performance Charges to the extent the Capacity Resource does not perform due to a forced outage, i.e., an unplanned outage not approved by PJM, which is the result of an unexpected or unanticipated failure by the underlying physical generator. Because PJM does not approve forced outage unavailability, a forced outage is not an excuse for a Capacity Resource to avoid Non-Performance Charges.

As a result of the very limited excuses from Non-Performance Charges, capacity sellers are responsible for ensuring resource performance, and thus "bear the burden of delivering on their capacity obligation." *PJM Interconnection, L.L.C.*, 155 FERC ¶ 61,157, at P 110. In other words, capacity sellers, not PJM or load, bear the responsibility and risks associated with ensuring Capacity Resources are available to perform during emergencies. In this way, FERC has held that the Non-

Performance Charge "holds capacity resources accountable for delivering on their capacity commitments." *Id.* at P 18.

Here, Energy Harbor combined three generator units—Sammis units 5, 6, and 7—with a total installed capacity of 1,490 megawatts, and offered them as one resource to support an offer into PJM's capacity auction for the period including December 2022. The Capacity Resource supported by the entire Sammis resource cleared the relevant capacity auction and obtained an unforced capacity obligation of 1,164 megawatts, which was later reduced to 1,012 megawatts on December 23 and 1,036 megawatts on December 24 through replacement transactions. *Energy Harbor LLC v. PJM Interconnection, L.L.C.*, 185 FERC ¶ 61,203, at P 6 (2023) (R.182, JA____) ("Order").

During the capacity emergency on December 23-24, 300 megawatts of the Sammis resource was on a PJM-approved maintenance outage, leaving 1,190 megawatts of installed capacity from Sammis units 5, 6, and 7 available to support Energy Harbor's 1,012 megawatt capacity commitment on December 23 and 1,036 megawatt capacity commitment on December 24. To address the emergency conditions, PJM expected Energy Harbor to provide between 805-870 megawatts of energy, well below its available capacity. However, Sammis units 5 and 7 experienced forced outages, reducing Energy Harbor's ability to perform to between 465 and 731 megawatts of energy during the emergency periods, i.e. when PJM most

needed the energy to maintain system reliability that Energy Harbor was obligated to provide.

STATUTES AND REGULATIONS

PJM adopts the Statutes and Regulations contained in the brief of Respondent FERC filed on October 4, 2024. Brief of Respondent Federal Energy Regulatory Commission, *Energy Harbor LLC v. FERC*, No. 24-1092 (D.C. Cir. Oct. 4, 2024) ("FERC Br."). Relevant provisions of PJM's Tariff and Reliability Agreement are set forth in the addendum to this brief.

STATEMENT OF THE CASE

PJM adopts FERC's Statement of Facts. FERC Br. at 5-22.

SUMMARY OF ARGUMENT

FERC properly ruled that PJM correctly calculated a Performance Shortfall for Energy Harbor's Sammis resource because that facility faced multiple outages during Performance Assessment Intervals that PJM called due to Winter Storm Elliott.

FERC's Order denying the complaint, which Energy Harbor here appeals, correctly characterizes the issue as whether PJM properly interpreted and applied section 10A(d) of Attachment DD of the Tariff. *See generally* Order (R.182, JA____-JA____); Tariff, Attachment DD, section 10A(d) (FERC Add. B-4). FERC determined that, given the undisputed fact that the Sammis resource faced both a

maintenance outage and two forced outages,[1] "the Maintenance Outage was not the *sole* cause of Energy Harbor's inability to meet its Expected Performance," Order at P 26 (R.182, JA____), and therefore the excuse provided by section 10A(d) did not apply. This straightforward application of the plain terms of the Tariff should be upheld.

Unable to avoid the presence of multiple outages during the Performance Assessment Intervals, Energy Harbor resorts to convoluted wordplay. However, FERC correctly ruled that the word "resource" in section 10A(d) does not imply a unit-by-unit evaluation of outages, but considers the '"combined resource [that] were obligated to provide 1,164.0 MWs for the 2022-2023 delivery year."' Order at P 27 (R.182, JA____). In other words, the applicable "resource" was the aggregation of Sammis units 5, 6, and 7, which Energy Harbor combined to offer as a single resource into PJM's capacity market. Order at P 27 n.64 (R.182, JA____). FERC also correctly held that "[t]he Tariff does not require … that PJM subtract the Maintenance Outage from Energy Harbor's Performance Shortfall." Order at P 26 (R.182, JA____).

[1] A generator forced outage is "an immediate reduction in output or capacity or removal from service, in whole or in part, of a generating unit by reason of an Emergency or threatened Emergency, unanticipated failure, or other cause beyond the control of the owner or operator of the facility." Tariff, Definitions – G - H (Add. A-2).

Energy Harbor's additional arguments are all variations on these mistaken themes. Accordingly, the Court should uphold the Order.

ARGUMENT

I. FERC'S CONCLUSIONS ARE CONSISTENT WITH THE PLAIN MEANING OF THE TARIFF

A. The Tariff Does Not Require PJM to Always Deduct Maintenance Outage Megawatts from the Performance Shortfall

Energy Harbor asserts that the Tariff requires PJM to "apply[] the reduction of the megawatts that were unavailable due to the approved outage to the Performance Shortfall" and that its deduction of the maintenance outage from installed capacity (referred to in the Order as "ICAP") "contravenes the plain language of the Tariff." Petitioner Br. at 13, 29. This is incorrect. The Tariff does not state that PJM *must* deduct megawatts on maintenance outage from a Performance Shortfall.

The key Tariff language states:

> [A] Capacity Resource … shall not be considered in the calculation of a Performance Shortfall for a Performance Assessment Interval to the extent such Capacity Resource … was unavailable during such Performance Assessment Interval solely because the resource on which such Capacity Resource … is based was on a Generator Planned Outage or Generator Maintenance Outage approved by [PJM].

Tariff, Attachment DD, section 10A(d) (FERC Add. B-4). Recall that a "Capacity Resource" is composed of megawatts, which are supported by physical resources,

such as generation units. Reliability Agreement, Article 1 – Definitions (Add. A-1). Here, the Capacity Resource (supported by the Sammis resource) during all Performance Assessment Intervals on December 23, 2022, was 1,012 megawatts of unforced capacity and during all Performance Assessment Intervals on December 24 was 1,036 megawatts of unforced capacity. Order at P 6 (R.182, JA____).

As the Order sets forth, the Tariff requires that "[a] Performance Shortfall is measured as Expected Performance minus Actual Performance, where Expected Performance is the resource's capacity commitment (measured in unforced capacity) times the Balancing Ratio. The Balancing Ratio is a measure of fleet-wide performance." Order at P 4 (R.182, JA____) (citing Tariff, Attachment DD, section 10A(c) (FERC Add. B-1)). The Tariff defines Actual Performance as the metered output of energy delivered to PJM by the resource at issue. Tariff, Attachment DD, section 10A(c) (FERC Add. B-1).

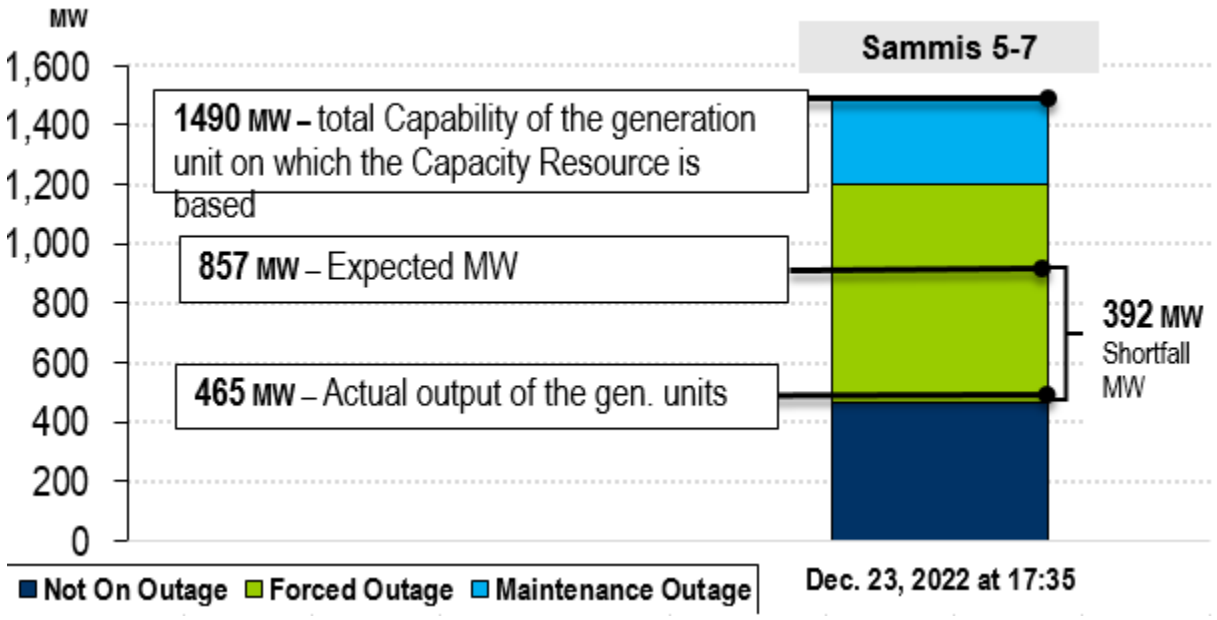
Contrary to Energy Harbor's position, section 10A(d) does not state that PJM must reduce, or credit, a Performance Shortfall by the amount of megawatts on maintenance outage. Rather, it merely provides that a Capacity Resource "shall not be *considered* in the calculation of a Performance Shortfall … *to the extent* such Capacity Resource … was unavailable …." Tariff, Attachment DD, section 10A(d) (FERC Add. B-4) (emphasis added). Requiring "consideration" of a value, here megawatts of maintenance outage, in a mathematical calculation does not indicate

where, mathematically, that value lies in the calculation. Thus, Energy Harbor is plainly incorrect that PJM was *required* to deduct the 300 megawatts on maintenance outage from the Performance Shortfall.

Moreover, section 10A(d) provides that the megawatts on maintenance outage are not considered in the calculation of a performance shortfall only "to the extent such Capacity Resource … was unavailable … solely because the resource … was on a Generator Planned Outage or Generator Maintenance Outage" *Id.* (FERC Add. B-4). This is exactly what PJM determined. The extent to which the Capacity Resource (i.e., megawatts) Energy Harbor committed was unavailable is determined by whether the physical generating units supporting the Capacity Resource are capable of producing that amount of megawatts. Here, PJM properly determined, and FERC agreed, that "[e]ven taking into account the Maintenance Outage of 300 MW, Energy Harbor should have been able to meet its Expected Performance." Order at P 26 (R.182, JA____). While Energy Harbor desires a reduction of its Performance Shortfall by the 300 megawatt maintenance outage because that would significantly reduce its Non-Performance Charges, Petitioner Br. at 35, that is not what section 10A(d) provides.

Figure 1 below graphically summarizes why this is true, using as a representative example the first Performance Assessment Interval (i.e., 17:30 to 17:35)[2] on December 23, 2022.[3]

Figure 1
Relevant Metrics for Sammis Units 5, 6, and7, and the Capacity Resource Based on Those Units, at Interval Ending 17:35 on December 23, 2022, in Megawatts of Installed Capacity[4]



[2] All times in this brief are in 24-hour clock and in Eastern Prevailing Time.

[3] The Expected Performance, Actual Performance, and Forced Outage values varied over the course of the Performance Assessment Intervals on December 23 and December 24, 2022, but not in a way that changes the Tariff analysis at issue here.

[4] This Figure contains all the same information included in Figure 1 PJM presented in its answer before FERC, but for ease of understanding, PJM updated the presentation of the information. *See Energy Harbor LLC v. PJM Interconnection, L.L.C.*, Answer of PJM Interconnection, L.L.C., Docket No. EL23-63-000, at 6 (June 2, 2023) (R.76, JA____); FERC Br. at 29.

As represented above, the total amount of installed capacity of Sammis units 5, 6, and 7 is 1,490 megawatts. As also shown, Expected Performance for the Capacity Resource committed here was 857 megawatts,[5] Actual Performance was 465 megawatts, and the Performance Shortfall was 392 megawatts. The graphic also color-codes the outage status of the aggregate of Sammis resource during this Performance Assessment Interval, showing in light blue the 300-megawatt maintenance outage, in light green the 740-megawatt forced outage, and in dark blue the 450-megawatts not on outage.

FERC properly determined that this relationship spanned all Performance Assessment Intervals at issue, stating "Energy Harbor had a total production capacity of 1,490 [megawatts], a capacity commitment of between 1,012 [megawatts] and 1,036 [megawatts], and produced between 465 [megawatts] and 503 [megawatts] on December 23 and 657 [megawatts] and 731 [megawatts] on December 24." Order at P 26 (R.182, JA____). For all Performance Assessment Intervals, Energy Harbor's capacity commitment was below the production capacity of the facility by more than the 300 megawatts on maintenance outage. Accordingly, there is no

[5] As previously noted, the Capacity Resource committed by Energy Harbor for December 23, 2022, was 1,012 megawatts of unforced capacity. The Tariff results in Expected Performance at a level below the committed capacity when, as here, the relevant Capacity Resources in the aggregate were underperforming (i.e., producing less actual output than) the Expected Performance from the universe of all resources in the aggregate.

extent to which Energy Harbor's Capacity Resource was unavailable due to the maintenance outage, because, after accounting for those 300 megawatts, Energy Harbor should have been able to provide its full capacity commitments.

Energy Harbor asserts that, in determining the Performance Shortfall, PJM should not have subtracted the maintenance outage from installed capacity because the Sammis resource was not committed to supply the full amount of its installed capacity. Petitioner Br. at 29. Doing so, Energy Harbor alleges, applies the "excusal to capacity that was not committed and that Energy Harbor was under no obligation to provide." *Id.* at 42. Energy Harbor fails to recognize that committed, or "Unforced," capacity is a function of installed capacity. *See Keyspan-Ravenswood*, 474 F.3d at 807-808. Indeed, to fulfill their capacity obligation, capacity sellers, like Energy Harbor, are required to offer the "[installed capacity] equivalent of the Market Seller's cleared [unforced capacity] commitment" into the Day-ahead Energy Market every day. Tariff, Attachment K-Appendix, section 1.10.1A(d) (Add. A-5). This energy market "must-offer" of installed capacity requirement is how sellers ensure they make available to PJM all committed capacity.[6] FERC

[6] The rules also recognize that resources must go on PJM-approved planned maintenance outages in order to be capable of meeting capacity commitments, and allow sellers to reduce the amount that must be offered by the megawatt "rendered unavailable by … a Generator Maintenance Outage." Tariff, Attachment K-Appendix, section 1.10.1A(d) (Add. A-5).

recently reaffirmed that "PJM requires resources to offer their full physical capability into the energy market, and this physical capability generally exceeds the [unforced capacity] level," allowing PJM "to retain a physical right to energy greater than resources' [unforced capacity level]." *PJM Interconnection, L.L.C.*, 186 FERC ¶ 61,080, at P 130 (2024).

Further, regardless of whether Energy Harbor obtained capacity commitments for all or a portion of the unforced capacity supported by the Sammis Facility, it is reasonable to subtract the maintenance outage from the full installed capacity of the facility. This is because the Capacity Resource here is supported by Sammis units 5, 6, and 7 on an undivided basis. As a result, 100% of the energy generated from those resources is eligible to meet the capacity commitment of the Capacity Resource. Thus, when evaluating performance, PJM looks at the entire underlying resource, considers the portion on outage and the energy generated. This is shown in Figure 1 above. As PJM does not pare off a portion of the energy generated and attribute it to the portion of the without a capacity commitment (and Energy Harbor does not argue that PJM should), it would be unreasonable to parse and attribute a portion maintenance outage.

B. The Maintenance Outage Was Not the Sole Outage Affecting the Sammis Resource

The Order correctly determines that "the Maintenance Outage was not the *sole* cause of Energy Harbor's inability to meet its Expected Performance as the Tariff

requires." Order at P 26 (R.182, JA____). Section 10A(d) states that a maintenance outage may excuse a Performance Shortfall "to the extent such Capacity Resource … was unavailable … *solely because the resource* … was on a Generator Maintenance Outage." Tariff, Attachment DD, section 10A(d) (FERC Add. B-4) (emphasis added). As Energy Harbor admits in its brief, "Sammis Unit 5 and Sammis Unit 7 were each on Forced Outages" during the relevant Performance Assessment Intervals. Petitioner Br. at 11. Therefore, FERC's finding was correct that the maintenance outage was not the *sole* cause of Energy Harbor's inability to meet its Expected Performance.

Moreover, as Figure 1 above illustrates, the combined effect of both the maintenance and forced outages (light blue and green areas of Figure 1) reduced the Actual Performance of the Sammis resource below Expected Performance. Considering "solely" the maintenance outage (light blue area of the figure), the Capacity Resource (i.e., about 1,000 megawatts) was not "unavailable" at all and should have been able to achieve Expected Performance. In other words, as FERC explained in its brief, "[i]f sufficient megawatts were available, then the maintenance outage could not have been the 'sole' cause of the unavailability." FERC Br. at 27. FERC so held, Order at P 26 (R.182, JA___), and its Order should be affirmed.

C. The Applicable "Resource" Is the Entire Sammis Resource

To evade the undisputed fact that the Sammis resource faced both a maintenance outage and forced outage, Energy Harbor argues that the '"resource on which such Capacity Resource … is based"' language compels PJM to apply the outages "at the 'resource' level—i.e., by generating unit and not at the Capacity Resource level." Petitioner Br. at 30-31. Viewed this way, "[t]he unavailability at Sammis Unit 6 during the Performance Assessment Intervals was solely due to the Generator Maintenance Outage." Petitioner Br. at 20. FERC correctly rejected Energy Harbor's convoluted position, stating that "the entire Sammis Facility is the 'resource' at issue in section 10A(d)." Order at P 27 (R.182, JA____).

As noted above, the "Capacity Resource" is an amount of megawatts from a generation resource (which could be composed of one or more generating units). Reliability Agreement, Article 1 – Definitions (Add. A-1). Here, the Capacity Resource is an aggregation of three separate generating units, Sammis units 5, 6, and 7. The Order quotes Energy Harbor's witness, who stated that these three units were '"a combined resource … obligated to provide 1,164.0 MWs for the 2022-2023 delivery year" and that "Energy Harbor and PJM" considered them "as a single resource with a single capacity commitment." Order at P 27 & nn.63, 64 (R.182, JA____-JA____). Energy Harbor could have submitted three distinct offers (for three distinct Capacity Resources) if it wanted these units to be treated individually.

It did not. By accepting a capacity commitment for a Capacity Resource supported by these three units, it agreed to make a megawatt amount equivalent to the Expected Performance available during each Performance Assessment Interval or pay the associated Non-Performance Charges for not doing so. Accordingly, the "'*resource* on which such Capacity Resource … is based" for purposes of section 10A(d) is the aggregation of Sammis units 5, 6, and 7, as FERC found. *Id.* at P 27 (R.182, JA____).

Energy Harbor contends that FERC's finding renders certain words "superfluous" because "[t]he Sammis Facility is the Capacity Resource." Petitioner Br. at 31. However, the defined term "Capacity Resource" is the *megawatts* supported by physical generation units. Reliability Agreement, Article 1 – Definitions (Add. A-1). For purposes of section 10A(d), the lowercase "resource" is the physical generation units, i.e., the combination of Sammis units 5, 6, and 7, which supports the "Capacity Resource." Thus, PJM's interpretation of this language, which the Order upholds, does not render any language superfluous.

Moreover, since the Capacity Resource is the total amount of megawatts supported by a "resource," it would be incongruous to split that resource into its component generation units to assess whether a maintenance outage is the sole reason for unavailability during a Performance Assessment Interval. Section 10A(d) focuses on "the extent such Capacity Resource … was unavailable." Tariff,

Attachment DD, section 10A(d) (FERC Add. B-4). That determination requires an evaluation of the aggregate generation supporting the aggregate megawatts of the Capacity Resource. What matters is whether the resource can support the megawatts comprising the Capacity Resource. Here, where the resource is an aggregation of three generation units, that determination entails assessing the total impact of any maintenance outages and forced outages on the ability of the resource to provide the expected megawatts of the Capacity Resource.

II. ENERGY HARBOR'S REMAINING ARGUMENTS LACK MERIT

A. Energy Harbor's Interpretation of Section 10A(d) Is Unreasonable

Energy Harbor argues that, if the Court finds Section 10A(d) to be ambiguous, FERC's interpretation "cannot stand." Petitioner Br. at 32. However, the linchpin of this argument is the same mistaken belief that the phrase "resource on which such Capacity Resource … is based" requires PJM to conduct a unit-by-unit evaluation of outages, rather than viewing the "resource" as the aggregation of all three Sammis units. Petitioner Br. at 32-33. As explained above, a "Capacity Resource" is a megawatt amount supported by physical generation. The physical generation, whether it is a part of a generation unit, a single generation unit, or multiple generation units, is the applicable "resource."

Energy Harbor points to PJM's explanation, referenced in the Order, that a Capacity Resource does not go on outage. Petitioner Br. at 32 (citing Order at P 17

(R.182, JA____)). Energy Harbor misconstrues the point. Because a Capacity Resource is an amount of megawatts, it does not go on an outage. Rather, an outage would affect the "resource" supporting the Capacity Resource. This is entirely consistent with section 10A(d).

It is irrelevant that an outage ticket applies only to a single generation unit. Petitioner Br. at 32-33. An outage to any of the units comprising a "resource" might reduce that resource's ability to support the Capacity Resource. Accordingly, PJM cannot view the units comprising a "resource" individually, because it must assess whether the "resource," however it is comprised, can supply the expected megawatts committed (i.e., the Capacity Resource). Indeed, as FERC points out in its brief (at 33-34, 38), Energy Harbor's unit-level interpretation would mean that a generator would always receive a credit for the full amount of a maintenance outage against its Performance Shortfall, even when the underlying resource otherwise has the installed capacity to perform despite the maintenance outage. Energy Harbor's unit-level analysis appears to be an artifice to avoid the clear fact that, as the Order properly determines, the 300-megawatt maintenance outage was not the sole outage affecting the "resource."

B. The Order Does Not Ignore Energy Harbor's Evidence or Arguments

Energy Harbor recycles the same arguments refuted above to suggest that the Order's holding that PJM properly calculated the Performance Shortfall is in conflict

with the holding that Energy Harbor's resource was not unavailable solely due to the maintenance outage. Petitioner Br. at 37-38, 42.

To the extent Energy Harbor's argument is based on its incorrect interpretation that the applicable "resource" is individual units, rather than the entire Sammis resource, this argument is refuted above. Petitioner Br. at 38-40.

Energy Harbor's assertion that FERC ignored "that PJM applied a 300 MW reduction in its calculations," Petitioner Br. at 36, is plainly incorrect. The Order states that "[e]ven taking into account the Maintenance Outage of 300 MW, Energy Harbor should have been able to meet its Expected Performance." Order at P 26 (R.182, JA____). The Order also acknowledges Energy Harbor's position that "PJM incorrectly reduced the Expected Performance of the Sammis [resource] by the difference between the [installed capacity] of the Sammis [resource] and the MW on Maintenance Outage." *Id.* at P 28 (R.182, JA____). Thus, FERC appropriately considered and discarded this argument.

Furthermore, Energy Harbor appears to believe that PJM's consideration of the 300-megawatt maintenance outage implicitly requires a determination that the maintenance outage was the sole reason for the resource's unavailability. Petitioner Br. at 38 ("conflicting positions" between inclusion of 300-megawatt reduction and finding that "resource's unavailability was not 'solely' due to the Generator Maintenance Outage and therefore was not eligible for the excusal under Section

10A(d)"), 42 (The Order "failed to offer any explanation on how PJM's application of the 300 MW to the Installed Capacity can be reconciled with the Complaint Order's findings that the Generator Maintenance Outage was not the sole cause"). This tortured logic suggests that, if the unavailability of the resource was not due solely to the maintenance outage, PJM should not have considered the unavailability of the 300 megawatts at all. However, PJM had to consider the 300 megawatts in order to determine the extent to which the Capacity Resource was unavailable, as section 10A(d) requires. *See* FERC Br. at 22, 40 (subtracting maintenance outage from total capacity needed to determine "whether section 10A(d) was triggered in the first instance"). Here, as illustrated in Figure 1 above and as FERC held, "[e]ven taking into account the Maintenance Outage of 300 MW, Energy Harbor should have been able to meet its Expected Performance" because the underlying resource was still capable of supporting the expected megawatts of the Capacity Resource. Order at P 26 (R.182, JA___).

Energy Harbor argues that the Order did not consider that "Installed Capacity is not an input to the calculation of the Performance Shortfall." Petitioner Br. at 40. However, the Order discusses how PJM utilized "the difference between the [installed capacity] of the Sammis [resource] and the [megawatts] on Maintenance Outage" and found that "PJM correctly calculated the Performance Shortfall." Order at P 28 (R.182, JA____). As explained, the installed capacity of the Sammis

resource must be used to determine "the extent such Capacity Resource … was unavailable." Tariff, Attachment DD, section 10A(d) (FERC Add. B-4). That is, installed capacity is a critical component in determining any reduction to Expected Performance resulting from the strictly circumscribed excuses outlined in section 10A(d). Energy Harbor believes that this method "gives the [300-megawatt maintenance outage] no effect," Petitioner Br. at 41, but, as shown in Figure 1 above, PJM accounted for the maintenance outage. The effect Energy Harbor seeks is a direct reduction of its Performance Shortfall, which would reduce the Non-Performance Charges PJM assessed. As explained throughout this brief and in FERC's brief (at 30-38), that is inconsistent with section 10A(d).

C. FERC's Notice of Denial of Rehearing by Operation of Law Is Not Arbitrary and Capricious

Energy Harbor asserts that FERC's Notice of Denial of Rehearing by Operation of Law ("Denial Notice") was arbitrary and capricious because it did not address "any of the arguments that Energy Harbor raised." Petitioner Br. at 42. It then proceeds to restate once again the same arguments it raised concerning the Order. The Denial Notice merely acknowledges that, absent FERC action on rehearing within 30 days, "rehearing may be deemed to have been denied" by operation of law. Denial Notice (R.187, JA____). As the statutes and regulations cited in the Denial Notice recognize that FERC may, for whatever reason, not issue

an order on rehearing within 30 days, denial of rehearing by operation of law is not "arbitrary and capricious."

CONCLUSION

For the reasons presented here and in FERC's Brief, the petition for review should be denied.

Respectfully submitted,

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UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Energy Harbor LLC,	)	
Petitioner,	)	
v.	)	No. 24-1092
Federal Energy Regulatory Commission,	)	
Respondent.	)	

CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMIT

Pursuant to Rules 32(a)(7)(B) and 32(g)(1) of the Federal Rules of Appellate Procedure, the undersigned certifies that the foregoing brief complies with the applicable type-volume limitations. The brief was prepared using a proportionally spaced type (Times New Roman, 14 point) and contains 5,109 words, not including the cover page, corporate disclosure statement, tables of contents and authorities, the glossary, the certificates of counsel, the signature blocks, and proof of service. This certificate was prepared in reliance on the word-count function of the word-processing system (Microsoft Word 2016) used to prepare the brief.

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October 11, 2024

ADDENDUM

Description **Page**

PJM Interconnection, L.L.C.,Intra-PJM Tariffs
Filing Category: Normal Filing Date: 06/01/2021
FERC Docket: ER21-02043-000 FERC Action: Accept
FERC Order: 176 FERC ¶ 61,056 Order Date: 07/30/2021
Effective Date: 08/01/2021 Status: Superseded
RAA ARTICLE 1, RAA ARTICLE 1 -- DEFINITIONS (36.0.0)

ARTICLE 1 – DEFINITIONS

Unless the context otherwise specifies or requires, capitalized terms used herein shall have the respective meanings assigned herein or in the Schedules hereto, or in the PJM Tariff or PJM Operating Agreement if not otherwise defined in this Agreement, for all purposes of this Agreement (such definitions to be equally applicable to both the singular and the plural forms of the terms defined). Unless otherwise specified, all references herein to Articles, Sections or Schedules, are to Articles, Sections or Schedules of this Agreement. As used in this Agreement:

***

Capacity Resources:

"Capacity Resources" shall mean megawatts of (i) net capacity from Existing Generation Capacity Resources or Planned Generation Capacity Resources meeting the requirements of the Reliability Assurance Agreement, Schedules 9 and Reliability Assurance Agreement, Schedule 10 that are or will be owned by or contracted to a Party and that are or will be committed to satisfy that Party's obligations under the Reliability Assurance Agreement, or to satisfy the reliability requirements of the PJM Region, for a Delivery Year; (ii) net capacity from Existing Generation Capacity Resources or Planned Generation Capacity Resources not owned or contracted for by a Party which are accredited to the PJM Region pursuant to the procedures set forth in such Schedules 9 and 10; or (iii) load reduction capability provided by Demand Resources or Energy Efficiency Resources that are accredited to the PJM Region pursuant to the procedures set forth in the Reliability Assurance Agreement, Schedule 6.

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PJM Interconnection, L.L.C.,Intra-PJM Tariffs
Filing Category: Normal
Filing Date: 03/22/2022
FERC Docket: ER22-01420-000
FERC Action: Accept
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Order Date: 07/12/2022
Effective Date: 07/13/2022
Status: Superseded
G-H, OATT Definitions - G - H (8.0.0)

Definitions – G - H

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Generator Forced Outage:

"Generator Forced Outage" shall mean an immediate reduction in output or capacity or removal from service, in whole or in part, of a generating unit by reason of an Emergency or threatened Emergency, unanticipated failure, or other cause beyond the control of the owner or operator of the facility, as specified in the relevant portions of the PJM Manuals. A reduction in output or removal from service of a generating unit in response to changes in market conditions shall not constitute a Generator Forced Outage.

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PJM Interconnection, L.L.C., Intra-PJM Tariffs
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OATT ATT K APPX Sec 1.10, OATT Attachment K Appendix Sec 1.10 - Scheduling (43.2.0)

1.10 Scheduling.

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1.10.1A Day-ahead and Real-time Energy Market Scheduling.

The following actions shall occur not later than 11:00 a.m. on the day before the Operating Day for which transactions are being scheduled, or such other deadline as may be specified by the Office of the Interconnection in order to comply with the practical requirements and the economic and efficiency objectives of the scheduling process specified in this Schedule.

(a) Each Market Participant may submit to the Office of the Interconnection specifications of the amount and location of its customer loads and/or energy purchases to be included in the Day-ahead Energy Market for each hour of the next Operating Day, such specifications to comply with the requirements set forth in the PJM Manuals. Each Market Buyer shall inform the Office of the Interconnection of the prices, if any, at which it desires not to include its load in the Day-ahead Energy Market rather than pay the Day-ahead Price. PRD Providers that have committed Price Responsive Demand in accordance with the Reliability Assurance Agreement shall submit to the Office of the Interconnection, in accordance with procedures specified in the PJM Manuals, any desired updates to their previously submitted PRD Curves, provided that such updates are consistent with their Price Responsive Demand commitments, and provided further that PRD Providers that are not Load Serving Entities for the Price Responsive Demand at issue may only submit PRD Curves for the Real-time Energy Market. Price Responsive Demand that has been committed in accordance with the Reliability Assurance Agreement shall be presumed available for the next Operating Day in accordance with the most recently submitted PRD Curve unless the PRD Curve is updated to indicate otherwise. PRD Providers may also submit PRD Curves for any Price Responsive Demand that is not committed in accordance with the Reliability Assurance Agreement; provided that PRD Providers that are not Load Serving Entities for the Price Responsive Demand at issue may only submit PRD Curves for the Real-time Energy Market. All PRD Curves shall be on a PRD Substation basis, and shall specify the maximum time period required to implement load reductions.

(b) Each Generating Market Buyer shall submit to the Office of the Interconnection: (i) hourly schedules for resource increments, including hydropower units, self-scheduled by the Market Buyer to meet its Equivalent Load; and (ii) the Dispatch Rate at which each such self-scheduled resource will disconnect or reduce output, or confirmation of the Market Buyer's intent not to reduce output.

(c) All Market Participants shall submit to the Office of the Interconnection schedules for any energy exports, energy imports, and wheel through transactions involving use of generation or Transmission Facilities as specified below, and shall inform the Office of the Interconnection if the transaction is to be scheduled in the Day-ahead Energy Market. Any Market Participant that elects to schedule an export, import or wheel through transaction in the Day-ahead Energy Market may specify the price (such price not to exceed $2,000/MWh), if any, at which the export, import or wheel through transaction will be wholly or partially curtailed. The foregoing price specification shall apply to the applicable interface pricing point. Any Market Participant that elects not to schedule its export, import or wheel through transaction in the Day-ahead Energy Market shall inform the Office of the Interconnection if the parties to the transaction are not willing to incur Transmission Congestion and Loss Charges in the Real-time Energy Market in order to complete any such scheduled transaction. Such transactions in the Real-time Energy Market, other than Coordinated Transaction Schedules and emergency energy sales and purchases, may specify a price up to $2,000/MWh. Scheduling of such transactions shall be conducted in accordance with the specifications in the PJM Manuals and the following requirements:

i) Market Participants shall submit schedules for all energy purchases for delivery within the PJM Region, whether from resources inside or outside the PJM Region;

ii) Market Participants shall submit schedules for exports for delivery outside the PJM Region from resources within the PJM Region that are not Dynamic Transfers to such entities pursuant to Tariff, Attachment K-Appendix, section 1.12; and

iii) In addition to the foregoing schedules for exports, imports and wheel through transactions, Market Participants shall submit confirmations of each scheduled transaction from each other party to the transaction in addition to the party submitting the schedule, or the adjacent Control Area.

(c-1) A Market Participant may elect to submit in the Day-ahead Energy Market a form of Virtual Transaction that combines an offer to sell energy at a source, with a bid to buy the same megawatt quantity of energy at a sink where such transaction specifies the maximum difference between the Locational Marginal Prices at the source and sink. The Office of Interconnection will schedule these transactions only to the extent this difference in Locational Marginal Prices is within the maximum amount specified by the Market Participant. A Virtual Transaction of this type is referred to as an "Up-to Congestion Transaction." Such Up-to Congestion Transactions may be wholly or partially scheduled depending on the price difference between the source and sink locations in the Day-ahead Energy Market. The maximum difference between the source and sink prices that a participant may specify shall be limited to +/- $50/MWh. The foregoing price specification shall apply to the price difference between the specified source and sink in the day-ahead scheduling process only. An accepted Up-to Congestion Transaction results in scheduled injection at a specified source and scheduled withdrawal of the same megawatt quantity at a specified sink in the Day-ahead Energy Market.

(c–2) A Market Participant may elect to submit an Increment Offer and/or Decrement Bid form of Virtual Transaction in the Day-ahead Energy Market and shall specify the price for such transaction which shall be limited to $2,000/megawatt-hour.

(c-3) Up-to Congestion Transactions may only be submitted at hubs, Residual Metered Load and interfaces not described in Tariff, Attachment K-Appendix, section 2.6A(b). Increment Offers and Decrement Bids may be only submitted at hubs, nodes at which physical generation or load is settled, Residual Metered Load and interfaces not described in Tariff, Attachment K-Appendix, section 2.6A(b).

(d) Market Sellers in the Day-ahead Energy Market shall submit offers for the supply of energy, demand reductions, or other services for the following Operating Day for each clock hour for which the Market Seller desires or is required to make its resource available to the Office of the Interconnection. Offers for the supply of energy may be cost-based, market-based, or both, and may vary hourly. Offers shall be submitted to the Office of the Interconnection in the form specified by the Office of the Interconnection and shall contain the information specified in the Office of the Interconnection's Offer Data specification, this section 1.10.1A(d), section 1.10.9B below, Operating Agreement, Schedule 2, and the PJM Manuals, as applicable. Market Sellers owning or controlling the output of a Generation Capacity Resource that is committed as a Capacity Resource under Tariff, Attachment DD or RAA, Schedule 8.1, and that has not been rendered unavailable by a Generator Planned Outage, a Generator Maintenance Outage, or a Generator Forced Outage shall submit offers for the available capacity of such Generation Capacity Resource, including any portion that is self-scheduled by the Generating Market Buyer. Such offers shall be based on the ICAP equivalent of the Market Seller's cleared UCAP capacity commitment, provided, however, where the underlying resource is a Capacity Storage Resource or an Intermittent Resource, the Market Seller shall satisfy the must offer requirement by either self-scheduling or offering the unit as a dispatchable resource, in accordance with the PJM Manuals, where the hourly day-ahead self-scheduled values for such Capacity Storage Resources and Intermittent Resources may vary hour to hour from the capacity commitment. Any offer not designated as a Maximum Emergency offer shall be considered available for scheduling and dispatch under both Emergency and non-Emergency conditions. Offers may only be designated as Maximum Emergency offers to the extent that the Generation Capacity Resource falls into at least one of the following categories:

i) Environmental limits. If the resource has a limit on its run hours imposed by a federal, state, or other governmental agency that will significantly limit its availability, on either a temporary or long-term basis. This includes a resource that is limited to operating only during declared PJM capacity emergencies by a governmental authority.

ii) Fuel limits. If physical events beyond the control of the resource owner result in the temporary interruption of fuel supply and there is limited on-site fuel storage. A fuel supplier's exercise of a contractual right to interrupt supply or delivery under an interruptible service agreement shall not qualify as an event beyond the control of the resource owner.

iii) Temporary emergency conditions at the unit. If temporary emergency physical conditions at the resource significantly limit its availability.

iv) Temporary megawatt additions. If a resource can provide additional megawatts on a temporary basis by oil topping, boiler over-pressure, or similar techniques, and such megawatts are not ordinarily otherwise available.

The submission of offers for resource increments that are not committed as a Capacity Resource under Tariff, Attachment DD or RAA, Schedule 8.1 shall be optional, but any such offers must contain the information specified in the Office of the Interconnection's Offer Data specification, Operating Agreement, Schedule 1, sections 1.10.1A(d) and 1.10.9B, Operating Agreement, Schedule 2, and the PJM Manuals, as applicable. Energy offered from generation resources that are not committed as a Capacity Resource under Tariff, Attachment DD or RAA, Schedule 8.1 shall not be supplied from resources that are included in or otherwise committed to supply the Operating Reserves of a Control Area outside the PJM Region.

The foregoing offers:

i) Shall specify the Generation Capacity Resource or Economic Load Response Participant resource and energy or demand reduction amount, respectively, for each clock hour in the offer period;

ii) Shall specify the amounts and prices for each clock hour during the entire Operating Day for each resource component offered by the Market Seller to the Office of the Interconnection;

iii) May specify for generation resources offer parameters for each clock hour during the entire Operating Day, as applicable and in accordance with section 1.10.9B below, including: (1) Minimum Run Time; (2) maximum run time; (3) Start-up Costs; (4) No-load Costs; (5) Incremental Energy Offer; (6) notification time; (7) availability; (8) ramp rate; (9) Economic Minimum; (10) Economic Maximum; (11) emergency minimum MW; (12) emergency maximum MW; (13) Synchronized Reserve maximum MW; (14) Secondary Reserve maximum MW; and (15) condense to generation time constraints, and may specify offer parameters for Economic Load Response Participant resources for each clock hour during the entire Operating Day, as applicable and in accordance with section 1.10.9B below, including: (1) minimum down time; (2) shutdown costs; (3) Incremental Energy Offer; (4) notification time; (5) Economic Minimum; and (6) Economic Maximum;

iv) Shall set forth any special conditions upon which the Market Seller proposes to supply a resource increment, including any curtailment rate specified in a bilateral contract for the output of the resource, or any cancellation fees;

v) May include a schedule of offers for prices and operating data contingent on acceptance by the deadline specified in this Schedule, with additional schedules applicable if accepted after the foregoing deadline;

vi) Shall constitute an offer to submit the resource increment to the Office of the Interconnection for scheduling and dispatch in accordance with the terms of the offer for the clock hour, which offer shall remain open through the Operating Day, for which the offer is submitted, unless the Market Seller a) submits a Real-time Offer for the applicable clock hour, or b) updates the availability of its offer for that hour, as further described in the PJM Manuals;

vii) Shall be final as to the price or prices at which the Market Seller proposes to supply energy or other services to the PJM Interchange Energy Market, such price or prices being guaranteed by the Market Seller for the period extending through the end of the following Operating Day, unless modified after the close of the Day-ahead Energy Market as permitted pursuant to sections 1.10.9A or 1.10.9B below;

viii) Shall not exceed an energy offer price of $1,000/megawatt-hour for all generation resources, except (1) when a Market Seller's cost-based offer is above $1,000/megawatt-hour and less than or equal to $2,000/megawatt-hour, then its market-based offer must be less than or equal to the cost-based offer; and (2) when a Market Seller's cost-based offer is greater than $2,000/megawatt-hour, then its market-based offer must be less than or equal to $2,000/megawatt-hour;

ix) Shall not exceed a demand reduction offer price of $1,000/megawatt-hour, except when an Economic Load Response Participant submits a cost-based offer that includes an incremental cost component that is above $1,000/megawatt-hour, then its market-based offer must be less than or equal to the cost-based offer but in no event greater than $2,000/megawatt-hour;

x) Shall not exceed an offer price as follows for Emergency Load Response and Pre-Emergency Load Response participants with:

a) a 30 minute lead time, pursuant to Tariff, Attachment DD-1, section A.2 and the parallel provision of RAA, Schedule 6, $1,000/megawatt-hour, plus the applicable Reserve Penalty Factor for the Primary Reserve Requirement, minus $1.00;

b) an approved 60 minute lead time, pursuant to Tariff, Attachment DD-1, section A.2 and the parallel provision of RAA, Schedule 6, $1,000/megawatt hour, plus [the applicable Reserve Penalty Factor for the Primary Reserve Requirement divided by 2]; and

c) an approved 120 minute lead time, pursuant to Tariff, Attachment DD-1, section A.2 and the parallel provisions of RAA, Schedule 6, $1,100/megawatt-hour; and

xi) Shall not exceed an energy offer price of $0.00/MWh for pumped storage hydropower units scheduled by the Office of the Interconnection pursuant to the hydro optimization tool in the Day-ahead Energy Market.

(e) A Market Seller that wishes to make a resource available to sell Regulation service shall submit an offer for Regulation for each clock hour for which the Market Seller desires to make its resource available to the Office of the Interconnection to provide Regulation that shall specify the megawatts of Regulation being offered, which must equal or exceed 0.1 megawatts, the Regulation Zone for which such Regulation is offered, the price of the capability offer in dollars per MW, the price of the performance offer in Dollars per change in MW, and such other information specified by the Office of the Interconnection as may be necessary to evaluate the offer and the resource's opportunity costs. Such offers may vary hourly, and may be updated each hour, up to 65 minutes before the applicable clock hour during the Operating Day. The total of the performance offer multiplied by the historical average mileage used in the market clearing plus the capability offer shall not exceed $100/megawatt-hour in the case of Regulation offered for all Regulation Zones. In addition to any market-based offer for Regulation, the Market Seller also shall submit a cost-based offer. A cost-based offer must be in the form specified in the PJM Manuals and consist of the following components as well as any other components specified in the PJM Manuals:

i. The costs (in $/MW) of the fuel cost increase due to the steady-state heat rate increase resulting from operating the unit at lower megawatt output incurred from the provision of Regulation shall apply to the capability offer;

ii. The cost increase (in $/ΔMW) in costs associated with movement of the regulation resource incurred from the provision of Regulation shall apply to the performance offer; and

iii. An adder of up to $12.00 per megawatt of Regulation provided applied to the capability offer.

Qualified Regulation capability must satisfy the measurement and verification tests specified in the PJM Manuals.

(f) Each Market Seller owning or controlling the output of a Generation Capacity Resource committed to service of PJM loads under the Reliability Pricing Model or Fixed Resource Requirement Alternative shall submit a forecast of the availability of each such Generation Capacity Resource for the next seven days. A Market Seller (i) may submit a non-binding forecast of the price at which it expects to offer a generation resource increment to the Office of the Interconnection over the next seven days, and (ii) shall submit a binding offer for energy, along with Start-up Costs and No-load Costs, if any, for the next seven days or part thereof, for any generation resource with minimum notification or start-up requirement greater than 24 hours. Such resources committed by the Office of the Interconnection will not receive Operating Reserve Credits nor otherwise be made whole for its hours of operation for the duration of any portion of such commitment that exceeds the maximum start-up and notification

times for such resources during Hot Weather Alerts and Cold Weather Alerts, consistent with Tariff, Attachment K-Appendix, section 3.2.3 and Tariff, Attachment K-Appendix, section 6.6.

(g) Each component of an offer by a Market Seller of a Generation Capacity Resource that is constant for the entire Operating Day and does not vary hour to hour shall remain in effect for subsequent Operating Days until superseded or canceled.

(h) The Office of the Interconnection shall post the total hourly loads scheduled in the Day-ahead Energy Market, as well as, its estimate of the combined hourly load of the Market Buyers for the next four days, and peak load forecasts for an additional three days.

(i) Except for Economic Load Response Participants, all Market Participants may submit Virtual Transactions that apply to the Day-ahead Energy Market only. Such Virtual Transactions must comply with the requirements set forth in the PJM Manuals and must specify amount, location and price, if any, at which the Market Participant desires to purchase or sell energy in the Day-ahead Energy Market. The Office of the Interconnection may require that a market participant shall not submit in excess of a defined number of bid/offer segments in the Day-ahead Energy Market, as specified in the PJM Manuals, when the Office of the Interconnection determines that such limit is required to avoid or mitigate significant system performance problems related to bid/offer volume. Notice of the need to impose such limit shall be provided prior to 10:00 a.m. EPT on the day that the Day-ahead Energy Market will clear. For purposes of this provision, a bid/offer segment is each pairing of price and megawatt quantity submitted as part of an Increment Offer or Decrement Bid. For purposes of applying this provision to an Up-to Congestion Transaction, a bid/offer segment shall refer to the pairing of a source and sink designation, as well as price and megawatt quantity, that comprise each Up-to Congestion Transaction.

(j) (i) Offers to Supply Synchronized and Non-Synchronized Reserves By Generation Resources in the Day-ahead and Real-time Reserve Markets

(1) Market Sellers owning or controlling the output of a Generation Capacity Resource that was committed in an FRR Capacity Plan, self-supplied, offered and cleared in a Base Residual Auction or Incremental Auction, or designated as replacement capacity, as specified in Tariff, Attachment DD, is capable of providing Synchronized Reserve or Non-Synchronized Reserve as specified in section 1.7.19A(a), in section 1.7.19A.01(a) and in the PJM Manuals, and has not been rendered unavailable by a Generator Planned Outage, a Generator Maintenance Outage, or a Generator Forced Outage, shall submit offers or otherwise make their 10-minute reserve capability available to supply Synchronized Reserve or, as applicable, Non-Synchronized Reserve, including any portion that is self-scheduled by the Generating Market Buyer, in an amount equal to the available 10-minute reserve capability of such Generation Capacity Resource. Market Sellers of Generation Capacity Resources subject to this must-offer requirement that do not make the reserve capability of such resources available when such resource is able to operate with a dispatchable range (e.g. through offering a fixed output) will be in violation of this provision.

(2) Market Sellers of all other generation resources that (A) are capable of providing Synchronized Reserve or Non-Synchronized Reserve, as specified in section 1.7.19A(a), in section 1.7.19A.01(a) and in the PJM Manuals, (B) are located within the metered boundaries of the PJM Region, and (C) have submitted offers for the supply of energy into the Day-ahead Energy Market and/or Real-time Energy Market shall be deemed to have made their reserve capability available to provide Synchronized Reserve or Non-Synchronized Reserve in the Day-ahead Energy Market and/or Real-time Energy Market for each clock hour for which the Market Seller submits an available offer to supply energy; provided, however that hydroelectric generation resources and Energy Storage Resources are not automatically deemed available to provide reserves based on the submission of an available energy offer but may submit offers to supply Synchronized Reserve and Non-Synchronized Reserve, as applicable.

(3) Offers for the supply of Synchronized Reserve by all generation resources must be cost-based. Consistent with the resource's offer to supply energy, such offers may vary hourly and may be updated each hour up to 65 minutes before the applicable clock hour during the Operating Day. Offers shall be submitted to the Office of the Interconnection in the form specified by the Office of the Interconnection and shall contain the information specified in the Office of the Interconnection's Offer Data specification, this section 1.10.1A, section 1.10.9B below, and the PJM Manuals, as applicable. For offers to supply Synchronized Reserve, the offer price shall not exceed the expected value of the penalty for failing to provide Synchronized Reserve, where such expected value shall be recalculated annually, in accordance with the PJM Manuals, and posted on PJM's website. The expected value of the penalty is calculated as the product of: (A) the average penalty, expressed in $/MWh, multiplied by (B) the average rate of non-performance during Synchronized Reserve events multiplied by (C) the probability a Synchronized Reserve event that will qualify for non-performance assessments will occur.

The expected value of the penalty shall be determined by an annual review of the twelve-month period ending October 31 of the calendar year in which the review is performed. The Office of the Interconnection shall post the results of its annual review by no later than December 15, and the revised offer price cap shall be effective as of the following January 1; provided, however, that at the time of implementation of this rule the expected value of the penalty shall be $0.02/MWh, and for the period from the second month after implementation through the second January 1 following such date of implementation, the expected value of the penalty shall be recalculated on a monthly basis using data from the implementation date of this rule through the 15th day of the current month, and the revised value shall be effective the 1st day of the following month.

(4) All Non-Synchronized Reserve offers shall be for $0.00/MWh. Consistent with the resource's offer to supply energy, such offers may vary hourly

and may be updated each hour up to 65 minutes before the applicable clock hour during the Operating Day. Offers shall be submitted to the Office of the Interconnection in the form specified by the Office of the Interconnection and shall contain the information specified in the Office of the Interconnection's Offer Data specification, this subsection (d) of this section 1.10.1A(d), section 1.10.9B below, and the PJM Manuals, as applicable.

(ii) Determination of Available Synchronized Reserve Capability of Generation Resources

(1) For each offer to supply reserves by a synchronized resource, the Office of the Interconnection shall determine the MW of available Synchronized Reserve capability offered in the Day-ahead Energy Market and Real-time Energy Market, in accordance with the PJM Manuals; except, however, that the Office of the Interconnection will not make such determination for hydroelectric generation resources or Energy Storage Resources. Hydroelectric generation resources and Energy Storage Resources may submit offers for their available Synchronized Reserve capability as part of their offer into the Synchronized Reserve market, provided that such offer equals or exceeds 0.1 MW; however, any such resource which is subject to the must offer requirements in section 1.10.1A(j)(i) above must submit a Synchronized Reserve offer which specifies the MW of available Synchronized Reserve capability in order to remain compliant with such requirements.

(2) An on-line generation resource's available Synchronized Reserve capability, except for generation resources capable of synchronous condensing, shall be determined in accordance with the PJM Manuals and based on the resource's current performance and initial energy output and the following offer parameters submitted as part of the resource's energy offer: (A) ramp rate; (B) Economic Minimum; and (C) the lesser of Economic Maximum and Synchronized Reserve maximum MW, where Synchronized Reserve maximum MW may be lower than the Economic Maximum only where the Market Seller has, in accordance with the procedures set forth in the PJM Manuals, submitted justification to the Office of the Interconnection that the resource has an operating configuration that prevents it from reliably providing Synchronized Reserves above the Synchronized Reserve maximum MW.

For generation resources capable of synchronous condensing, the resource's available Synchronized Reserve capability shall be based on the following offer parameters submitted as part of the resource's energy offer: (D) ramp rate; (E) condense to generation time constraints; (F) Economic Minimum; and (G) the lesser of Economic Maximum and Synchronized Reserve maximum MW, where Synchronized Reserve maximum MW may be lower than the Economic Maximum only where the Market Seller has, in accordance with the procedures set forth in the PJM Manuals, submitted justification to the Office of the Interconnection that the resource has an operating configuration that prevents

it from reliably providing Synchronized Reserves above the Synchronized Reserve maximum MW.

(3) Any Market Seller that believes its generating unit has operating modes, limits, or conditions where the unit would not be capable of providing Synchronized Reserves in real time, can submit to the Office of the Interconnection with a copy to the Market Monitoring Unit a request for an exception from being assigned Synchronized Reserves in the Real-time Synchronized Reserve Market during time periods in which the generating unit is in those operating modes, limits, or conditions. As part of the request, the Market Seller shall supply, for each generating unit, technical information about the operational modes, limits, or conditions to support the requested exception, as further detailed in the PJM Manuals. The Office of the Interconnection shall consult with the Market Monitoring Unit, and consider any input received from the Market Monitoring Unit, in its determination of a request for such an exception. Within 60 days of the submission of the request, the Office of the Interconnection shall notify the Market Seller in writing, with a copy to the Market Monitoring Unit, whether the request is approved or denied. The effective date of any approved request will be provided in the written notification. If a Market Seller has an approved exception, the Market Seller must communicate to the Office of the Interconnection when the unit cannot provides reserves, and the Office of the Interconnection will provide a mechanism for Market Sellers with an approved exception to provide such communication to the Office of the Interconnection in real time, as further detailed in the PJM Manuals. An approved exception will remain applicable to the unit until such time as the Office of the Interconnection determines that a change is needed or the Market Seller notifies the Office of the Interconnection, with a copy to the Market Monitoring Unit, that a change is needed based on changed operational capabilities of the unit. Market Sellers must notify the Office of the Interconnection, with a copy to the Market Monitoring Unit, within 30 days of any changed operational capabilities that necessitate a change in an approved exception.

(iii) Determination of Available Non-Synchronized Reserve Capability of Generation Resources

(1) For each offer to supply reserves by an off-line generation resource, the Office of the Interconnection shall determine the MW of available Non-Synchronized Reserve capability offered in the Day-ahead Energy Market and Real-time Energy Market in accordance with the PJM Manuals; except, however, that the Office of the Interconnection will not make such determination for hydroelectric generation resources or Energy Storage Resources. Such hydroelectric generation resources or Energy Storage Resources may submit offers for their available Non-Synchronized Reserve capability as part of their offer into the Non-Synchronized Reserve market, provided that such offer equals or exceeds 0.1 MW; however, any such resource which is subject to the must

offer requirements in section 1.10.1A(j)(i) above must submit a Non-Synchronized Reserve offer which specifies the MW of available Non-Synchronized Reserve capability in order to remain compliant with such requirements.

(2) An off-line generation resource's available Non-Synchronized Reserve capability shall be determined in accordance with the PJM Manuals and based on the following offer parameters submitted as part of the resource's energy offer: (A) startup time; (B) notification time; (C) ramp rate; (D) Economic Minimum; and (E) the lesser of Economic Maximum and Synchronized Reserve maximum MW, where Synchronized Reserve maximum MW may be lower than the Economic Maximum only where the Market Seller has, in accordance with the procedures set forth in the PJM Manuals, submitted justification to the Office of the Interconnection that the resource has an operating configuration that prevents it from reliably providing Non-Synchronized Reserves above its Synchronized Reserve maximum MW.

(iv) Offers to Supply Synchronized Reserves by Economic Load Response Participant Resources in the Day-ahead and Real-time Reserve Markets

(1) Economic Load Response Participants that submit offers to reduce demand into the Day-ahead Energy Market and Real-time Energy Market and wish to make their resources available to supply Synchronized Reserve may submit offers to supply Synchronized Reserve from such resources, where such offers shall specify the megawatts of Synchronized Reserve being offered, which must equal or exceed 0.1 megawatts and such other information specified by the Office of the Interconnection as may be necessary to evaluate the offer. Such offers may vary hourly, and may be updated each hour up to 65 minutes before the applicable clock hour during the Operating Day.

(2) All offers to supply Synchronized Reserve offers from Economic Load Response Participant resources shall not exceed the expected value of the penalty for failing to provide Synchronized Reserve, as determined in accordance with section 1.10.1A(j)(i)(3) above. Offers shall be submitted to the Office of the Interconnection in the form specified by the Office of the Interconnection and shall contain the information specified in the Office of the Interconnection's Offer Data specification, this section 1.10.1A(d), section 1.10.9B below, and the PJM Manuals, as applicable.

(k) An Economic Load Response Participant that wishes to participate in the Day-ahead Energy Market by reducing demand shall submit an offer to reduce demand to the Office of the Interconnection for each clock hour for which the Economic Load Response Participant desires to make its resource available to the Office of the Interconnection to reduce demand. The offer must equal or exceed 0.1 megawatts, may vary hourly, and shall specify: (i) the amount of the offered curtailment in minimum increments of .1 megawatts: (ii) the Day-ahead Locational Marginal Price above which the end-use customer will reduce load, subject to section 1.10.1A(d)(ix); and (iii) at the Economic Load Response Participant's option, shutdown costs

associated with reducing load, including direct labor and equipment costs, opportunity costs, and/or a minimum of number of contiguous hours for which the load reduction must be committed. Such offers may be updated each hour, up to 65 minutes before the applicable clock hour during the Operating Day. Economic Load Response Participants submitting offers to reduce demand in the Day-ahead Energy Market may establish an incremental offer curve, provided that such offer curve shall be limited to ten price pairs (in MWs) per hour.

(l) Market Sellers owning or controlling the output of an Economic Load Response Participant resource that was committed in an FRR Capacity Plan, or that was self-supplied or that offered and cleared in a Base Residual Auction or Incremental Auction, may submit demand reduction bids for the available load reduction capability of the Economic Load Response Participant resource. The submission of demand reduction bids for Economic Load Response Participant resource increments that were not committed in an FRR Capacity Plan, or that have not cleared in a Base Residual Auction or Incremental Auction, shall be optional, but any such bids must contain the information required to be included in such bids, as specified in the PJM Economic Load Response Program. An Economic Load Response Participant resource that was committed in an FRR Capacity Plan, or that was self-supplied or offered and cleared in a Base Residual Auction or Incremental Auction, may submit a demand reduction bid in the Day-ahead Energy Market as specified in the Economic Load Response Program; provided, however, that in the event of an Emergency PJM shall require Economic Load Response Participant resources to reduce load, notwithstanding that the Zonal LMP at the time such Emergency is declared is below the price identified in the demand reduction bid.

(m) (i) Offers to Supply Secondary Reserve By Generation Resources

(1) Market Sellers owning or controlling the output of a Generation Capacity Resource that was committed in an FRR Capacity Plan, self-supplied, offered and cleared in a Base Residual Auction or Incremental Auction, or designated as replacement capacity, as specified in Tariff, Attachment DD, that is available for energy, is capable of providing Secondary Reserve, as specified in section 1.7.19A.02(a) and in the PJM Manuals, and has not been rendered unavailable by a Generator Planned Outage, a Generator Maintenance Outage, or a Generator Forced Outage shall submit offers to supply Secondary Reserve, or otherwise make their Secondary Reserve capability available. Such offers shall be for an amount equal to the resource's available energy output achievable within thirty minutes (less its energy output achievable within ten minutes) from a request of the Office of the Interconnection. Market Sellers of Generation Capacity Resources subject to this must-offer requirement that do not make the reserve capability of such resources available when such resource is able to operate with a dispatchable range (e.g. through offering a fixed output) will be in violation of this provision.

(2) Market Sellers of all other generation resources located within the metered boundaries of the PJM Region that submit offers for the supply of energy into the Day-ahead Energy Market and/or Real-time Energy Market and are capable of providing Secondary Reserve, as specified in the PJM Manuals, shall

be deemed to have made their reserve capability available to provide Secondary Reserve in the Day-ahead Energy Market and/or Real-time Energy Market for each clock hour for which the Market Seller submits an available offer to supply energy; provided, however that hydroelectric generation resources and Energy Storage Resources are not automatically deemed available to provide reserves based on the submission of an available energy offer but may submit offers to supply Secondary Reserve, as applicable.

(3) Offers for the supply of Secondary Reserve shall be for $0.00/MWh. Consistent with the resource's offer to supply energy, such offers may vary hourly and may be updated each hour up to 65 minutes before the applicable clock hour during the Operating Day. Offers shall be submitted to the Office of the Interconnection in the form specified by the Office of the Interconnection and shall contain the information specified in the Office of the Interconnection's Offer Data specification, this subsection (d) above, section 1.10.9B below, and the PJM Manuals, as applicable.

(ii) Determination of Available Secondary Reserve Capability of Generation Resources

(1) For each offer to supply Secondary Reserve by a generation resource, the Office of the Interconnection shall determine the MW of available Secondary Reserve capability offered in the Day-ahead Energy Market and Real-time Energy Market in accordance with the PJM Manuals; except, however, that the Office of the Interconnection will not make such determination for hydroelectric generation resources or Energy Storage Resources. Hydroelectric generation resources or Energy Storage Resources may submit their available Secondary Reserve capability as part of their offer into the Secondary Reserve market, provided that such offer equals or exceeds 0.1 MW; however, any such resource which is subject to the must offer requirements in section 1.10.1A(m)(i) above must submit a Secondary Reserve offer which specifies the MW of available Secondary Reserve capability in order to remain compliant with such requirements.

(2) (A) An on-line generation resource's available Secondary Reserve capability, except for generation resources capable of synchronous condensing, shall be based on the resource's current performance and initial energy output, the resource's available Synchronized Reserve capability; and the following offer parameters submitted as part of the energy offer: (i) ramp rate; (ii) Economic Minimum; and (iii) the lesser of Economic Maximum and Secondary Reserve maximum MW, where a resource's Secondary Reserve maximum MW may be less than the Economic Maximum only where the Market Seller has, in accordance with the procedures set forth in the PJM Manuals, submitted justification to the Office of the Interconnection that the resource has an operating configuration that

prevents it from reliably providing Secondary Reserves above its Secondary Reserve maximum MW.

(B) For generation resources capable of synchronous condensing, the resource's available Secondary Reserve capability shall be based on the following offer parameters submitted as part of the energy offer: (i) ramp rate; (ii) condense to generation time constraints; (iii) Economic Minimum; and (iv) the lesser of Economic Maximum and Secondary Reserve maximum MW, where a resource's Secondary Reserve maximum MW may be less than the Economic Maximum only where the Market Seller has, in accordance with the procedures set forth in the PJM Manuals, submitted justification to the Office of the Interconnection that the resource has an operating configuration that prevents it from reliably providing Secondary Reserves above its Secondary Reserve maximum MW.

(C) An off-line generation resource's available Secondary Reserve capability, shall be based on the resource's available Secondary Reserve capability and the following offer parameters submitted as part of the resource's energy offer: (i) startup time; (ii) notification time; (iii) ramp rate; (iv) Economic Minimum; and (v) the lesser of Economic Maximum and Secondary Reserve maximum MW, where a resource's Secondary Reserve maximum MW may be less than the Economic Maximum only where the Market Seller has, in accordance with the procedures set forth in the PJM Manuals, submitted justification to the Office of the Interconnection that the resource has an operating configuration that prevents it from reliably providing Secondary Reserves above its Secondary Reserve maximum MW.

(3) Any Market Seller that believes its generating unit has operating modes, limits, or conditions where the unit would not be capable of providing Secondary Reserves in real time, can submit to the Office of the Interconnection with a copy to the Market Monitoring Unit a request for an exception from being assigned Secondary Reserves in the Real-time Secondary Reserve Market during time periods in which the generating unit is in those operating modes, limits, or conditions. As part of the request, the Market Seller shall supply, for each generating unit, technical information about the operational modes, limits, or conditions to support the requested exception, as further detailed in the PJM Manuals. The Office of the Interconnection shall consult with the Market Monitoring Unit, and consider any input received from the Market Monitoring Unit, in its determination of a request for such an exception. Within 60 days of the submission of the request, the Office of the Interconnection shall notify the Market Seller in writing, with a copy to the Market Monitoring Unit, whether the request is approved or denied. The effective date of any approved request will be provided in the written notification. If a Market Seller has an approved exception, the Market Seller must

communicate to the Office of the Interconnection when the unit cannot provides reserves, and the Office of the Interconnection will provide a mechanism for Market Sellers with an approved exception to provide such communication to the Office of the Interconnection in real time, as further detailed in the PJM Manuals. An approved exception will remain applicable to the unit until such time as the Office of the Interconnection determines that a change is needed or the Market Seller notifies the Office of the Interconnection, with a copy to the Market Monitoring Unit, that a change is needed based on changed operational capabilities of the unit. Market Sellers must notify the Office of the Interconnection, with a copy to the Market Monitoring Unit, within 30 days of any changed operational capabilities that necessitate a change in an approved exception.

(iii) Offers to Supply Secondary Reserves by Economic Load Response Participant resources

(1) Each Economic Load Response Participant that submits offers to reduce demand into the Day-ahead Energy Market and Real-time Energy Market and wishes to make their resources available to supply Secondary Reserve shall submit offers to supply Secondary Reserve from such resources, where such offers shall specify the megawatts of Secondary Reserve being offered, which must equal or exceed 0.1 megawatts and include such other information specified by the Office of the Interconnection as may be necessary to evaluate the offer. Such offers may vary hourly, and may be updated each hour up to 65 minutes before the applicable clock hour during the Operating Day.

(2) All Secondary Reserve offers by Economic Load Response Participant resources shall be for $0.00/MWh. Offers shall be submitted to the Office of the Interconnection in the form specified by the Office of the Interconnection and shall contain the information specified in the Office of the Interconnection's Offer Data specification, this section 1.10.1A(d), section 1.10.9B below, and the PJM Manuals, as applicable.

(n) A Market Participant may submit a Day-Ahead Pseudo-Tie Transaction for a Market Participant's generator within the PJM balancing authority area that is a Pseudo-Tie into the MISO balancing authority area. Day-Ahead Pseudo-Tie Transactions combine an offer to sell energy at a source with a bid to buy the same megawatt quantity of energy at a sink where such transaction specifies the maximum difference between the Locational Marginal Prices at the source and sink.

Each Day-Ahead Pseudo-Tie Transaction shall: (1) source at a Market Participant's generator within the PJM balancing authority area that Pseudo-Ties into MISO; and (2) sink at the PJM-MISO interface. A Market Participant must reserve transmission service in accordance with the PJM Tariff for each Day-Ahead Pseudo-Tie Transaction. Megawatt quantities for Day-Ahead Pseudo-Tie Transactions shall be greater than zero and less than or equal to the transmission service reserved for the Day-Ahead Pseudo-Tie Transaction. An accepted Day-Ahead Pseudo-Tie Transaction results in scheduled injection at a specified source and scheduled withdrawal of the same megawatt quantity at a specified sink in the Day-Ahead Energy Market.

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Energy Harbor LLC,	)	
Petitioner,	)	
v.	)	No. 24-1092
Federal Energy Regulatory Commission,	)	
Respondent.	)	

CERTIFICATE OF SERVICE

I hereby certify that on this 11th day of October 2024, I electronically filed the foregoing brief with the Clerk of the Court for the United States Court of Appeals for the District of Columbia Circuit by using the CM/ECF system. I certify that service for participants in the case that are registered CM/ECF users will be accomplished by the CM/ECF system.

Respectfully submitted,

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