

interconnected to the PJM Transmission System. The Market Monitor has explained its position in a number of proceedings where the same issue has been raised.³

Please find attached a supporting memorandum explaining the Market Monitor's position that Lakehurst fails to show that it provides reactive capability to PJM under Schedule 2 of the OATT and therefore is not eligible to receive compensation from PJM.⁴

The Market Monitor understands that this is a black box offer of settlement that does not purport to resolve the issues on the merits. The issue of eligibility cannot be resolved on a black box basis. The basis for the level of the rate is concealed. The existence of the rate schedule is not concealed. Even if the other terms of the offer of settlement are approved, the issue of eligibility can and should be severed and litigated. The issue has been raised in a number of proceedings pending before the Commission where settlement proceedings

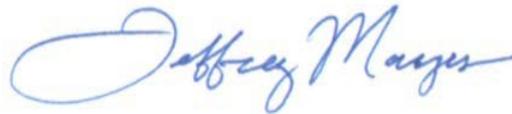
³ See *Whitetail Solar 2, LLC*, Protest of the Independent Market Monitor for PJM, Docket No. ER21-936-000 (February 16, 2021); *Whitetail Solar 2, LLC*, Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM, Docket No. ER21-936-000 (March 24, 2021); *Whitetail Solar 3, LLC*, Comments and Motion of the Independent Market Monitor for PJM, Docket No. ER20-1851-000 (August 31, 2020); *Whitetail Solar 3, LLC*, Answer, Motion for Leave to Answer, and Comments of the Independent Market Monitor for PJM, Docket No. ER20-1851-000, -001 (November 12, 2020); *Ingenco Wholesale Power, LLC*, Comments and Motion of the Independent Market Monitor for PJM, Docket No. ER20-1863-000, -001 (August 31, 2020); *Ingenco Wholesale Power, LLC*, Answer and Motion for Leave to Answer of the Independent Market Monitor for PJM, Docket No. ER20-1863-000, -001 (November 4, 2020); *Oxbow Creek Energy, LLC*, Reply of the Independent Market Monitor for PJM in Opposition to Offer of Settlement, ER19-2847-004 (June 16, 2021).

⁴ See 18 CFR 602(f)(4) ("Any comment that contests an offer of settlement by alleging a dispute as to a genuine issue of material fact must include an affidavit detailing any genuine issue of material fact by specific reference to documents, testimony, or other items included in the offer of settlement, or items not included in the settlement, that are relevant to support the claim. Reply comments may include responding affidavits."). This reply does not allege a genuine issue of material fact. This reply disputes the eligibility of the Lakehurst to file a rate schedule under Schedule 2 to the OATT. This reply therefore contests the offer of settlement as a matter of law, and it is not required and not appropriate to include an affidavit alleging a dispute as to a genuine issue of material fact. Rule 602(f)(4) states a particular requirement applicable to parties alleging a dispute of material fact. Rule 602 does not state that settlements cannot be contested by alleging a legal dispute.

reached impasse and the issue will be decided at hearing.⁵ A decision in one or more of these proceedings would provide guidance for resolving the issue disputed in this case. The settlement offer filed in this case should not be approved while any of these proceedings remain pending. Accordingly, the Market Monitor moves that this proceeding be held in abeyance while any of these proceedings remain pending.

The offer of settlement should not be approved without a decision resolving the issue of whether Lakehurst 1 is eligible to file a rate for reactive capability under Schedule 2 to the OATT.

Respectfully submitted,



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⁵ See *Whitetail Solar 2, LLC*, Docket No. ER21-936-000; *Whitetail Solar 3, LLC*, Docket No. ER20-1851-002, EL21-27-000; and *Elk Hill Solar 2, LLC*, ER21-1633-000. *Whitetail Solar 1 LLC*, Docket No. ER20-714-000, is also expected to go hearing upon withdrawal of the settlement filed in that case.

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 7th day of September, 2021.



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Attachment



DATE: September 7, 2021
TO: Lakehurst Solar, L.L.C., Docket No. ER21-737-000
FROM: The Independent Market Monitor for PJM (Market Monitor)
SUBJECT: Memorandum re Eligibility Issue

This memorandum explains the Market Monitor's position on the eligibility of a generating unit to collect rates for reactive capability under Schedule 2 to the PJM OATT (Schedule 2), and, in particular, the generating unit that is the subject of this proceeding: The Lakehurst Facility ("Generating Facility"). The Generating Facility's point of interconnection to the transmission/distribution system is the 34.5 kV Lakehurst-Navy N140 Line ("Line"), which is owned and operated by Jersey Central Power & Light (JCPL) ("System Owner/Operator").¹

The Generating Facility is not eligible for reactive payments because it is not connected directly to the PJM system and therefore does not provide reactive capability to PJM under Schedule 2, and should not receive payments for a service that it does not and cannot provide.

The issue of eligibility is significant because PJM customers should only pay for ancillary services that they receive. The issue of eligibility concerns the definition of services that PJM customers should be required to pay for under Schedule 2. Questions related to whether resources connected to the distribution system provide services that should be paid for by local customers are separate. Schedule 2 should be correctly implemented. Because the decision to file under Schedule 2 is made solely by the generation owner, the issue of eligibility requires resolution by the Commission.

The issue of eligibility is also significant because the number of facilities interconnecting at points that are not on the PJM system (off system) is expected to increase. Such facilities do not contribute reactive capability to PJM, and based on anticipated power factor levels and the way the *AEP method* has been applied for calculating reactive rates under Schedule 2, such facilities would receive significantly larger payments per MW than the facilities that do provide reactive power capability useful to PJM.² These payments would be for services not provided, but also would distort the PJM capacity market by paying a large share of the fixed

¹ PJM Interconnection, L.L.C., PJM Service Agreements Tariff, PJM SA No. 4615, PJM SA No. 4615 Among PJM, Lakehurst, and JCPL, 1.0.0, as amended.

² See *American Electric Power Service Corp.*, 80 FERC ¶ 63,006 (1997), *aff'd*, 88 FERC ¶ 61,141 (1999).

costs of such facilities as reactive. This approach is a faulty and inefficient and noncompetitive market design.

Reactive Capability

Reactive capability is an ancillary service.³

PJM procures reactive capability from generators located on the high voltage grid that it plans and operates. Reactive power is local and cannot be transferred over long distances.⁴

PJM procures reactive capability from generators in order to provide Reactive Supply and Voltage Control from Generation or Other Sources Service procured under Schedule 2 directly to PJM customers. PJM also relies on “non generation resources,” referenced in Schedule 2, as part of its plan to maintain transmission voltages on the PJM’s transmission facilities within acceptable limits.

Schedule 2

Schedule 2 provides (emphasis added):

In order to maintain transmission voltages on the Transmission Provider’s transmission facilities within acceptable limits, generation facilities and non-generation resources capable of providing this service that are under the control of the control area operator are operated to produce (or absorb) reactive power. Thus, Reactive Supply and Voltage Control from Generation or Other Sources Service must be provided for each transaction on the Transmission Provider’s transmission facilities. The amount of Reactive Supply and Voltage Control from Generation or Other Sources Service that must be supplied with respect to the

³ See, e.g., *Chehalis Power Generating, L.P.*, 123 FERC ¶ 61,038 at P 2 (2008), citing *Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, FERC Stats. & Regs. ¶ 31,036 at 31,705–06 and 31, 716–17 (1996), *order on reh’g*, Order No. 888-A, FERC Stats. & Regs. ¶ 31,048, *order on reh’g*, Order No. 888-B, 81 FERC ¶ 61,248 (1997), *order on reh’g*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff’d in relevant part sub nom. Transmission Access Policy Study Group v. FERC*, 343 U.S. App. D.C. 151, 225 F.3d 667 (D.C. Cir. 2000), *aff’d sub nom. New York v. FERC*, 535 U.S. 1 (2002).

⁴ See FERC, *Payment for Reactive Power*, Commission Staff Report, Docket No. AD14-17 (April 22, 2014) at 5 (“Transmission lines dissipate reactive power more quickly than real power, meaning that reactive power cannot be efficiently transferred long distances on transmission lines.”).

Transmission Customer's transaction will be determined based on the reactive power support necessary to maintain transmission voltages within limits that are generally accepted in the region and consistently adhered to by the Transmission Provider.

Reactive Supply and Voltage Control from Generation or Other Sources Service is to be provided *directly by the Transmission Provider*. The Transmission Customer must purchase this service from the Transmission Provider.

In addition to the charges and payments set forth in this Tariff, Schedule 2, Market Sellers providing reactive services at the direction of the Office of the Interconnection shall be credited for such services, and Market Participants shall be charged for such services, as set forth in Tariff, Attachment K-Appendix, section 3.2.3B.

PJM is the Transmission Provider responsible under Schedule 2 to procure "the reactive power support necessary to maintain transmission voltages within limits that are generally accepted in the region and consistently adhered to by the Transmission Provider." PJM procures reactive capability for its system to ensure that it will have the reactive power to operate its system at acceptable transmission voltages.

Schedule 2 authorizes PJM to charge its Transmission Customers for reactive capability and to pay generating facilities that provide the reactive capability that supports reactive supply and voltage control service.

PJM is interconnected to systems that it does not monitor, operate or have responsibility for, including transmission systems and distribution systems. The operators of those systems are responsible to ensure sufficient reactive capability for those systems.

Schedule 2 explains that when PJM actually calls upon a resource to provide reactive output, that output is paid directly based on lost opportunity costs.

Nowhere does Schedule 2 create an obligation for PJM Transmission Customers to pay for reactive capability provided to support the operation of interconnected transmission or distribution systems.

PJM Monitored/Operated Facilities

The Line Is Not Monitored/Operated by PJM.

As a Regional Transmission Organization (RTO), PJM is responsible for maintaining the bulk electric system (BES). NERC defines the BES as: all transmission and transmission related facilities operating at 100 kV or more.⁵ The test employed by NERC is a bright line test. PJM may take responsibility to monitor and operate some transmission lines below the 100 kV threshold for BES. PJM may exercise its judgment, subject to approval by FERC, to assume responsibility for lines as low as 69 kV, or 34.5 kV. If PJM takes responsibility for a line, it is reasonable to conclude that PJM provides transmission service on such line regardless of NERC's classification. If PJM does not take responsibility, it is reasonable to conclude that PJM does not provide transmission service on such line. By definition, the PJM Transmission System includes lines on which PJM provides transmission service.⁶

PJM has primary responsibility for grid operation and for planning the PJM Transmission System. For example, PJM states whether a line is part of the PJM Transmission System when it performs interconnection studies. The key criteria for such determinations are whether the line is a Reportable Transmission Facility and a Monitored Transmission Facility.

In this case, the Line is not a Reportable Transmission Facility and is not a Monitored Transmission Facility.

Generating units located at the distribution level are subject to the rules of the owner/operator of those distribution lines (the EDC). Reactive power created by distribution level generators provide a service to the EDC and not to PJM.

Whatever reactive power is produced by the Lakehurst Facility is in service to JCPL.

To ensure that emergency situations can be covered, Schedule 2 requires that all generating units in its Energy Management System (EMS) have the capability to produce more MVAR than the small amount required by their voltage schedule.⁷ The asserted cost of this capability is paid under Schedule 2 of the PJM Tariff as reactive capability costs, despite the fact that

⁵ See NERC, Bulk Electric System Definition Reference Document, v3, August 2018, which can be accessed at: https://www.nerc.com/pa/Stand/2018%20Bulk%20Electric%20System%20Definition%20Reference/BES_Reference_Doc_08_08_2018_Clean_for_Posting.pdf.

⁶ See OATT § 1 (Definitions–T–U–V) (“Transmission System’ shall mean the facilities controlled or operated by the Transmission Provider within the PJM Region that are used to provide transmission service under Tariff, Part II and Part III.”).

⁷ See PJM Manual 14D, rev. 54 para. 7.1.2 (Voltage and Reactive Control).

incremental costs to provide reactive capability are typically zero and despite the fact that any capacity costs are accounted for in the capacity market. All generators with an interconnection agreement with PJM (ISA) are required to meet these reactive capability standards.

PJM publishes a map of all its transmission facilities on its website (Library/Maps/System Map). PJM does not include the Line on its map.

Definition of Reportable and Monitored Transmission Facility

PJM defines Reportable Transmission Facility to mean transmission lines for which:

Transmission Owners are required to report scheduled and forced outages for Reportable Transmission Facilities. Outage information is reported through eDART and through the status obtained via computer link to the EMS. A Transmission Facility is reportable if a change of its status can affect, or has the potential to affect, a transmission constraint on any Monitored Transmission Facility. A facility is also reportable if it impedes the free-flowing ties within the PJM RTO and/or adjacent areas. Facilities can be designated Yes, Low or No. See description below under “PJM Status” for an explanation of these designations. For more information about Outage Reportable facilities see [PJM] Manual 3a: Energy Management System Model Updates and Quality Assurance.⁸

PJM defines Monitored Transmission Facility as follows:

Monitored Transmission Facilities are identified by the Transmission Owner and evaluated by PJM in accordance with the requirements of [PJM] Manual 3a: Energy Management System Model Updates and Quality Assurance, Section 2.4.2. Observable Facilities accepted by PJM as part of congestion control. Monitored Transmission Facilities are monitored and controlled for limit violations using PJM’s Security Analysis programs. Controlling limit violations on Monitored Transmission Facilities may result in constrained operation including re-dispatch and/or TLR curtailments. PJM Open Access Transmission Tariff (OATT) Facilities operating at less than 230 kV may be monitored for any of the following criteria:

- Vital to the operation of the PJM RTO

⁸ See PJM Transmission Providers Facilities List On-Line Help (April 5, 2016), <<https://www.pjm.com/-/media/markets-ops/trans-service/trans-fac-help.ashx?la=en>>.

- Affects the interconnected operation of the PJM RTO with other Control Areas
- Affects the capability and reliability of generating facilities or the power system model that is used by PJM to monitor these facilities
- Significantly impact transmission facilities with a nominal voltage of 230 kV or greater if outaged
- Affects the PJM Energy Market if outaged
- May result in constrained operations to control limit violations

Facilities in the posted information can be designated Not Monitored, Reliability & Markets, Reliability-BES, Status Only, External Reliability, External Status Only, Reliability Non-BES, GSUs, Future.⁹

PJM's criteria for defining Reportable Transmission Facilities and Monitored Transmission Facilities are the appropriate criteria to determine what constitutes the PJM Transmission System and what facilities are not part of the PJM Transmission System. Facilities which are not part of the PJM Transmission System are the responsibility of the owner of the local distribution system at their point of interconnection. The Line is not included in PJM's transmission databases and has no designation.

Irrelevant Matters

The Voltage Level of the Line

The Market Monitor does not assert that voltage level alone determines which lines are included in the PJM Transmission System. The voltage level serves as an indicator, but is not dispositive of whether a facility is on the PJM Transmission System and therefore entitled to receive payment from PJM for reactive capability.

MVAR Flows

MVAR do not travel long distances comparable to MW.¹⁰ Some MVAR flow on to the PJM Transmission System from sources off system. A significant flow of MVAR occurs from the

⁹ See PJM Manual 3a: Energy Management System (EMS) Model Updates and Quality Assurance (QA) Rev. 19 (Nov. 19, 2020); PJM Transmission Providers Facilities List On-Line Help, (April 5, 2016), <<https://www.pjm.com/-/media/markets-ops/trans-service/trans-fac-help.ashx?la=en>>.

PJM Transmission System down into the distribution system. Intersystem agreements govern intersystem MVAR flows, but PJM does not pay or receive compensation for such flows.

Dispatch Authority

The Market Monitor does not assert that PJM has no legal authority to dispatch generating units ineligible to receive Schedule 2 payments. PJM at times dispatches units at the request of transmission companies for a local issue and the dispatch is paid for by the transmission company. But that authority does not substitute for the failure to establish that the unit interconnects to the PJM Transmission System and provides reactive capability to PJM.

Simply showing that a unit may respond to PJM dispatch instructions does not demonstrate PJM's reliance on the unit to provide reactive capability within the specific scope of Schedule 2 to the OATT.

The obligation to follow PJM dispatch is not the same thing as providing reactive capability to the PJM Transmission System. Pseudo tied units, for example, are explicitly excluded from eligibility to file for reactive rates under Schedule 2 of the OATT.¹¹

Interconnection Service Agreements

That PJM is party to the Interconnection Service Agreement does not establish that a Generation Facility is interconnected directly to the PJM Transmission System or provides reactive capability to the PJM Transmission System.

PJM may enter into three party interconnection service agreements (ISAs) that include the generating facility and the interconnecting transmission owner. Such agreements provide generating facilities the ability to sell energy and/or capacity in PJM, regardless of whether the facilities are directly or indirectly interconnected to the PJM Transmission System. There are provisions in such ISA agreements (which generally apply the form included at OATT Attachment O-1) that establish reactive capability obligations for the generating facility owner. Such obligations must be interpreted to be obligations of the generating facility owner to the operator of the system to which the generating facility interconnects, not to PJM. When the directly interconnected system is the sole responsibility of the interconnection transmission owner (including in its role as an electric distribution system owner), and is not monitored or operated by PJM, then any obligation to provide reactive capability is to the

¹⁰ See FERC, Payment for Reactive Power, Commission Staff Report, Docket No. AD14-17 (April 22, 2014) at 5 (“Transmission lines dissipate reactive power more quickly than real power, meaning that reactive power cannot be efficiently transferred long distances on transmission lines.”).

¹¹ See OA Schedule 1 § 1.12.

interconnecting transmission owner and is not to PJM. Reactive capability provided to the system monitored and operated only by the interconnecting transmission owner and not to the PJM Transmission System is not eligible to receive payment for reactive capability under Schedule 2 to the OATT.