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October 13, 2020

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E. Room 1A
Washington, D.C. 20426

Re: *PJM Interconnection, L.L.C., Docket No. ER19-469-004*
Order No. 841 Compliance Filing

Dear Secretary Bose,

In compliance with the Federal Energy Regulatory Commission’s (“FERC” or the “Commission”) directive in its July 16, 2020 Order,¹ PJM Interconnection, L.L.C. (“PJM”) hereby submits for filing proposed revisions to the PJM Open Access Transmission Tariff (“Tariff”) and the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. (“Operating Agreement”).²

PJM respectfully requests an effective date of December 3, 2019, to align with the effective date of most of the other Order No. 841-related Tariff and Operating Agreement revisions accepted by the Commission in this proceeding.³

¹ *PJM Interconnection, L.L.C.*, 172 FERC ¶ 61,029 (2020) (the “July 16, 2020 Order”). See July 16, 2020 Order at P 22 (“We thus direct PJM, within 90 days of the date of issuance of this order, to submit a further compliance filing to either clarify how its proposed tariff provisions prevent all distribution-connected electric storage resources from paying twice for the same charging energy or propose tariff revisions to ensure this outcome.”) (emphasis in original).

² The Tariff and Operating Agreement are currently located under PJM’s “Intra-PJM Tariffs” eTariff title, available here: <https://etariff.ferc.gov/TariffBrowser.aspx?tid=1731>. Terms not otherwise defined herein shall have the same meaning as set forth in the Tariff, Operating Agreement, and the Reliability Assurance Agreement Among Load-Serving Entities in the PJM Region (“RAA”).

³ See, e.g., *PJM Interconnection, L.L.C.*, 169 FERC ¶ 61,049 at P 260 (2019) (the “October 17, 2019 Order”) (“We affirm that we find PJM’s proposed Tariff revisions to be just and reasonable and accept them as in compliance with Order No. 841, to become effective December 3, 2019. Thus, we expect PJM to implement its currently proposed

I. BACKGROUND

In the July 16, 2020 Order, the Commission accepted PJM’s December 16, 2019 Compliance Filing⁴—the most recent compliance filing in this proceeding stemming from the Order No. 841 rulemaking.⁵ As relevant here, the Commission identified one outstanding compliance requirement related to metering and accounting practices for Energy Storage Resource (“ESR”) charging energy. Specifically, the Commission noted that in its October 17, 2019 Order, it had directed PJM to revise its tariff to state that PJM will not charge a distribution-connected ESR for charging energy if the distribution utility is unwilling or unable to net out any retail energy purchases associated with the ESR’s wholesale charging activities from the host customer’s retail bill.⁶ In the July 16, 2020 Order, the Commission found that “PJM did not comply with this direction, but instead filed tariff language specifying that the provision only applies to an Energy Storage Resource that is ‘co-located with end-use load.’”⁷ The Commission stated that it was “concerned that this language could exclude a distribution-connected Energy Storage Resource that is not directly on the site of end-use load but nonetheless receives a retail bill because it is

Tariff revisions on December 3, 2019, as required by Order No. 841.”); July 16, 2020 Order at P 3 (“In this order, we accept PJM’s Third Compliance Filing, to become effective December 3, 2019, with a limited number of revisions to become effective March 31, 2024, subject to a further compliance filing, as discussed below.”).

⁴ *PJM Interconnection, L.L.C.*, Compliance Filing of PJM Interconnection, L.L.C., Docket No. ER19-469-003 (Dec. 16, 2019) (the “December 16, 2019 Compliance Filing”).

⁵ *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, 162 FERC ¶ 61,127 (2018) (“Order No. 841”), *order on reh’g*, 167 FERC ¶ 61,154 (2019) (“Order No. 841-A”), *aff’d sub nom. Nat’l Ass’n of Regulatory Util. Comm’rs v. FERC*, No. 19-1142 (D.C. Cir. July 10, 2020).

⁶ July 16 Order at P 22 (citing October 17, 2019 Order at P 244).

⁷ *Id.*

located behind a distribution utility meter.”⁸

In light of this finding, the Commission directed PJM to submit a further compliance filing to “either clarify how its proposed tariff provisions prevent *all* distribution-connected electric storage resources from paying twice for the same charging energy or propose tariff revisions to ensure this outcome.”⁹

II. DESCRIPTION OF PROPOSED REVISIONS

In its December 16, 2019 Compliance Filing, PJM proposed the following language in Tariff, Attachment K-Appendix, section 1.4A.1(g), and Operating Agreement, Schedule 1, section 1.4A.1(g):

(g) In order to properly distinguish Direct Charging Energy from Load Serving Charging Energy, Energy Storage Resources that are co-located with end-use load shall include systems that are capable of measuring the below categories of electric energy, unless a different configuration is agreed to by the electric distribution company, the Energy Storage Resource, and PJM. The categories are: i) electric energy that is withdrawn from the grid and stored in the Energy Storage Resource; ii) electric energy that is generated on-site by a resource other than the Energy Storage Resource (if any exists) and stored in the Energy Storage Resource; iii) electric energy that is discharged by the Energy Storage Resource and injected onto the grid; iv) electric energy that is discharged from the Energy Storage Resource and consumed by on-site end-use load that is not Station Power. The measurement systems shall comply with the accuracy requirements for meters as described in the PJM Manual 01. Additional details for the configuration of such measurement systems under various specific configurations are specified in PJM Manual 14D.

If the distribution utility is unwilling or unable to net out Direct

⁸ *Id.*

⁹ *Id.* (emphasis in original)

Charging Energy associated with an Energy Storage Resource that is co-located with end-use load other than Station Power from the host customer's retail bill, PJM shall not bill the Energy Storage Resource for any Direct Charging Energy.

Energy Storage Resources shall only be credited for sale transactions of electric energy in PJM markets if that same sale transaction of electric energy is not also credited at retail.

In compliance with the Commission's directive in the July 16, 2020 Order, PJM proposes to revise the afore-cited passage in the following manner:

(g) In order to properly distinguish Direct Charging Energy from Load Serving Charging Energy, Energy Storage Resources that are distribution-connected or co-located with end-use load shall include systems that are capable of measuring the below categories of electric energy, unless a different configuration is agreed to by the electric distribution company, the Energy Storage Resource, and PJM. The categories are: i) electric energy that is withdrawn from the grid and stored in the Energy Storage Resource; ii) electric energy that is generated on-site by a resource other than the Energy Storage Resource (if any exists) and stored in the Energy Storage Resource; iii) electric energy that is discharged by the Energy Storage Resource and injected onto the grid; iv) electric energy that is discharged from the Energy Storage Resource and consumed by on-site end-use load that is not Station Power (if any such on-site end-use load exists). The measurement systems shall comply with the accuracy requirements for meters as described in the PJM Manual 01. Additional details for the configuration of such measurement systems under various specific configurations are specified in PJM Manual 14D.

If the distribution utility is unwilling or unable to net out from the host customer's retail bill Direct Charging Energy associated with an Energy Storage Resource that is distribution-connected or co-located with end-use load ~~other than that is not~~ Station Power ~~from the host customer's retail bill~~, PJM shall not bill the Energy Storage Resource for any Direct Charging Energy.

Energy Storage Resources shall only be credited for sale

transactions of electric energy in PJM markets if that same sale transaction of electric energy is not also credited at retail.

PJM submits that these revisions will directly address the Commission’s concerns articulated in the July 16, 2020 Order by adding the general phrase “distribution-connected” to the qualifier “co-located with end-use load” and thereby eliminating any ambiguity regarding the prohibition on any distribution-connected ESR paying twice for the same charging energy.¹⁰ For additional clarity, PJM has also added the phrase “(if any such on-site end-use load exists)” to the first paragraph of Tariff, Attachment K-Appendix, section 1.4A.1(g), and Operating Agreement, Schedule 1, section 1.4A.1(g), to account for any instances where energy may not be consumed by “on-site end-use load that is not Station Power.” PJM has also made minor wording modifications to the second paragraph for additional clarity.

III. EFFECTIVE DATE

PJM respectfully requests an effective date of December 3, 2019, to align with the effective date of most of the other Order No. 841-related Tariff and Operating Agreement revisions accepted by the Commission in this proceeding.¹¹

IV. COMMUNICATIONS

PJM requests that all communications regarding this filing be directed to the following

¹⁰ See, e.g., July 16, 2020 Order at P 18 (“Order No. 841 requires RTOs/ISOs to prevent electric storage resources from paying twice for the same charging energy (i.e., they should not have to pay both the wholesale and retail price for the same charging energy”) (citing Order No. 841 at P 326).

¹¹ *PJM Interconnection, L.L.C.*, 169 FERC ¶ 61,049 at P 260 (2019) (the “October 17, 2019 Order”) (“We affirm that we find PJM’s proposed Tariff revisions to be just and reasonable and accept them as in compliance with Order No. 841, to become effective December 3, 2019. Thus, we expect PJM to implement its currently proposed Tariff revisions on December 3, 2019, as required by Order No. 841.”); July 16, 2020 Order at P 3 (“In this order, we accept PJM’s Third Compliance Filing, to become effective December 3, 2019, with a limited number of revisions to become effective March 31, 2024, subject to a further compliance filing, as discussed below.”).

persons:

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V. DOCUMENTS INCLUDED WITH THIS FILING

In accordance with the requirements of Order No. 714¹² and the Commission's eTariff regulations, PJM hereby submits an eTariff XML filing package consisting of the following materials:

1. This transmittal letter;
2. Attachment A – Revisions to the Tariff and Operating Agreement, in redlined format; and
3. Attachment B – Revisions to the Tariff and Operating Agreement, in clean format.

VI. SERVICE

PJM has served a copy of this filing on all PJM Members and on all state utility regulatory commissions in the PJM Region by posting this filing electronically. In accordance with the Commission's regulations,¹³ PJM will post a copy of this filing to the FERC filings section of its internet site, located at the following link: <http://www.pjm.com/documents/ferc-manuals.aspx> with a specific link to the newly-filed document, and will send an e-mail on the same date as this

¹² *Electronic Tariff Filings*, 124 FERC ¶ 61,270 (2008).

¹³ See 18 C.F.R §§ 35.2(e) and 385.2010(f)(3).

filing to all PJM Members and all state utility regulatory commissions in the PJM Region¹⁴ alerting them that this filing has been made by PJM today and is available by following such link.

VII. CONCLUSION

In accordance with the foregoing, PJM respectfully requests that the Commission accept the proposed revisions to the PJM Tariff and Operating Agreement as being in full compliance with the July 16, 2020 Order, as discussed herein.

Respectfully submitted,

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/s/ Thomas DeVita
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On behalf of
PJM Interconnection, L.L.C.

¹⁴ PJM already maintains, updates, and regularly uses e-mail lists for all PJM members and affected commissions.

CERTIFICATE OF SERVICE

I hereby certify that I have this 13th day of October, 2020 caused a copy of the foregoing document to be served upon each person designated on the official service list compiled by the Secretary in this proceeding.

/s/ Lisa Romani _____

Lisa Romani

Sr. Paralegal

PJM Interconnection, L.L.C.

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Attachment A

Revisions to the PJM Open Access Transmission Tariff and PJM Operating Agreement

(Marked / Redline Format)

Section(s) of the
PJM Open Access Transmission Tariff
(Marked / Redline Format)

1.4A Energy Storage Resource Participation Model.

1.4A.1 Qualification.

(a) An Energy Storage Resource may opt into and out of the Energy Storage Resource Participation Model on an annual basis, in accordance with the procedures and processes defined in the PJM Manuals.

(b) Energy that an Energy Storage Resource Model Participant purchases from the PJM Interchange Energy Market must be Direct Charging Energy.

(c) An Energy Storage Resource utilizing the Energy Storage Resource Participation Model shall arrange for Network Transmission Service or Point-to-Point Transmission Service for purchases of Non-Dispatched Charging Energy. Network Transmission Service and Point-to-Point Transmission Service are not required for purchases of Dispatched Charging Energy.

(d) Energy Storage Resource Model Participants shall be eligible to be dispatched for positive and negative megawatts as otherwise applicable, to set price at positive and negative megawatt points on their offer curve as otherwise applicable, and to self-schedule positive and negative megawatt quantities, pursuant to the requirements of the PJM Manuals. Energy Storage Resources in Continuous Mode shall specify a single energy offer curve with monotonically increasing dollar values including both positive and negative megawatt quantities.

(e) Energy Storage Resource Model Participants shall be responsible for their own State of Charge Management, provided that they must comply with PJM operational orders regardless of the incidental impact on State of Charge.

(f) Energy Storage Resource Model Participants may offer quantities (including charging and discharging) equivalent to 0.1 MW or greater into all applicable PJM markets.

(g) In order to properly distinguish Direct Charging Energy from Load Serving Charging Energy, Energy Storage Resources that are distribution-connected or co-located with end-use load shall include systems that are capable of measuring the below categories of electric energy, unless a different configuration is agreed to by the electric distribution company, the Energy Storage Resource, and PJM. The categories are: i) electric energy that is withdrawn from the grid and stored in the Energy Storage Resource; ii) electric energy that is generated on-site by a resource other than the Energy Storage Resource (if any exists) and stored in the Energy Storage Resource; iii) electric energy that is discharged by the Energy Storage Resource and injected onto the grid; iv) electric energy that is discharged from the Energy Storage Resource and consumed by on-site end-use load that is not Station Power (if any such on-site end-use load exists). The measurement systems shall comply with the accuracy requirements for meters as described in the PJM Manual 01. Additional details for the configuration of such measurement systems under various specific configurations are specified in PJM Manual 14D.

If the distribution utility is unwilling or unable to net out from the host customer's retail bill Direct Charging Energy associated with an Energy Storage Resource that is distribution-connected or co-located with end-use load ~~other than~~that is not Station Power ~~from the host~~

| ~~customer's retail bill~~, PJM shall not bill the Energy Storage Resource for any Direct Charging Energy.

Energy Storage Resources shall only be credited for sale transactions of electric energy in PJM markets if that same sale transaction of electric energy is not also credited at retail.

Section(s) of the
PJM Operating Agreement
(Marked / Redline Format)

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(d) Energy Storage Resource Model Participants shall be eligible to be dispatched for positive and negative megawatts as otherwise applicable, to set price at positive and negative megawatt points on their offer curve as otherwise applicable, and to self-schedule positive and negative megawatt quantities, pursuant to the requirements of the PJM Manuals. Energy Storage Resources in Continuous Mode shall specify a single energy offer curve with monotonically increasing dollar values including both positive and negative megawatt quantities.

(e) Energy Storage Resource Model Participants shall be responsible for their own State of Charge Management, provided that they must comply with PJM operational orders regardless of the incidental impact on State of Charge.

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Attachment B

PJM Open Access Transmission Tariff and PJM Operating Agreement

(Clean Format)

Section(s) of the
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(Clean Format)

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