

FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, DC 20426

OFFICE OF ENERGY MARKET REGULATION

In Reply Refer To  
Southwest Power Pool, Inc.  
Docket Nos. ER19-460-000  
ER19-460-001  
ER19-460-002

Issued: April 1, 2019

Southwest Power Pool, Inc.  
Attention: Christopher M. Nolen  
Senior Attorney  
201 Worthen Drive  
Little Rock, AR 72223

Reference: Compliance Filing for Order No. 841

Dear Mr. Nolen:

On December 3, 2018, as amended on February 6, 2019 and February 28, 2019, Southwest Power Pool, Inc. (SPP) filed revisions to its Open Access Transmission Tariff (Tariff) to comply with Commission Order No. 841.<sup>1</sup> Please be advised that additional information is necessary to process the filing. Please provide complete responses to the following:<sup>2</sup>

**1) Creation of a Participation Model for Electric Storage Resources**

Order No. 841 added section 35.28(g)(9)(i) to the Commission's regulations to require that each regional transmission organization/ independent system operator (RTO/ISO) to have tariff provisions providing a participation model for electric storage resources consisting of market rules that, recognizing

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<sup>1</sup> *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 841, 162 FERC ¶ 61,127 (2018).

<sup>2</sup> SPP may file revised tariff records where appropriate.

the physical and operational characteristics of electric storage resources, facilitate their participation in the RTO/ISO markets.<sup>3</sup>

SPP states that, as a part of its participation model, it proposes to add section 2.8.3 to Attachment AE of its Tariff, entitled “Aggregators of Other Resources,” which will “ensure the language is applicable to [Electric Storage Resources] that elect to aggregate.”<sup>4</sup> However, SPP’s proposed Tariff language in section 2.8.3 of Attachment AE does not explicitly reference Electric Storage Resources, but provides that “[a]n aggregator of generation must be a Market Participant, satisfying all registration and certification requirements applicable to Market Participants.”<sup>5</sup>

- a. Please explain whether the proposed section 2.8.3 of Attachment AE is intended to apply only to those Electric Storage Resources electing to use the Market Storage Resource participation model, to all Electric Storage Resources, or to all types of generation resources eligible to participate in the Integrated Marketplace.

## **2) Eligibility of Electric Storage Resources to Participate in the RTO/ISO Markets**

Order No. 841 added section 35.28(g)(9)(i)(A) to the Commission’s regulations to require each RTO/ISO have tariff provisions providing that a resource using the participation model for electric storage resources is eligible to provide all capacity, energy, and ancillary services that it is technically capable of providing, including services that the RTOs/ISOs do not procure through an organized market.<sup>6</sup>

SPP states that, although it does not have a capacity market, Load Serving Entities (LSEs) are subject to a resource adequacy requirement.<sup>7</sup> SPP further

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<sup>3</sup> Order No. 841, 162 FERC ¶ 61,127 at P 51.

<sup>4</sup> SPP Compliance Filing, Transmittal at 9.

<sup>5</sup> SPP Compliance Filing, OATT, Sixth Revised Volume No. 1, Attachment AE, section 2.8.3.

<sup>6</sup> Order No. 841, 162 FERC ¶ 61,127 at P 76.

<sup>7</sup> SPP Compliance Filing, Transmittal at 16.

explains that an LSE may designate capacity resources to satisfy its resource adequacy requirement and that SPP's current rules do not preclude an LSE from designating an Electric Storage Resource to satisfy its resource adequacy requirement provided that the Electric Storage Resource meets "the continuous run time requirement applicable to all Resource types."<sup>8</sup>

- a. Please define the continuous run time requirement that is applicable to all resource types designated as capacity resources for the purpose of satisfying the resource adequacy requirement. Please provide citations to the relevant existing and/or proposed tariff sections that demonstrate these provisions.
- b. Please identify and describe any additional technical, operational and/or performance requirements that resources, including Electric Storage Resources, must meet in order to qualify for designation as a capacity resource for the purpose of satisfying an LSE's resource adequacy requirement.

### **3) Participation in the RTO/ISO Markets as Supply and Demand**

Order No. 841 stated that while RTOs/ISOs should allow resources using the participation model for electric storage resources to participate as supply and demand simultaneously (i.e., submit bids to buy and offers to sell during the same market interval), consistent with the opportunities available to other market participants, the RTOs/ISOs should not require them to do so simultaneously.<sup>9</sup>

SPP states that Market Storage Resources that are "not continuously dispatchable across 0 MWs" will choose between offering supply or bidding in demand for a given market interval.<sup>10</sup> In the event that a Market Storage Resource cannot be dispatched continuously along an Energy Offer Curve, they must choose a direction for each market interval: either supply or demand."<sup>11</sup> SPP further states that "the language on non-continuously dispatchable storage is provided in an abundance of caution with expectation that it will not be needed."<sup>12</sup>

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<sup>8</sup> *Id.*

<sup>9</sup> Order No. 841, 162 FERC ¶ 61,127 at P 165.

<sup>10</sup> SPP Compliance Filing, Transmittal at 17-18.

<sup>11</sup> *Id.*

<sup>12</sup> *Id.* at 18.

- a. Please define, or provide the criteria used to define, a Market Storage Resource that is “not continuously dispatchable across 0 MWs.” Please provide specific citations to the relevant existing and/or proposed tariff sections that demonstrate these provisions. In particular, please clarify which “language on non-continuously dispatchable storage” SPP refers to in its transmittal.
- b. Please describe the changes that SPP would need to make to its market clearing software to accommodate simultaneous participation by these resources and provide an estimate of the cost and time to implement such changes.
- c. Please explain why including Market Storage Resources’ start-up time constraints in their resource offer parameters does not allow for SPP to accommodate Market Storage Resources simultaneous supply offers and demand bids in a given market interval.

#### **4) State of Charge Management**

Order No. 841 required that, among other things, RTOs/ISOs accept wholesale bids from resources using the participation model for electric storage resources to buy energy, consistent with the rules related to wholesale purchasers of energy in each RTO/ISO, and that resources using the participation model for electric storage resources must be allowed to participate in the RTO/ISO markets as price takers, consistent with the existing rules for self-scheduled resources.<sup>13</sup> In addition, Order No. 841 required each RTO/ISO to allow resources using the participation model for electric storage resources to self-manage their state of charge.<sup>14</sup>

SPP states that it does not have a mechanism to explicitly manage state of charge for electric storage resources and that it does not propose to add any such mechanism in its compliance filing. SPP states that it “presumes that the market participant is the default manager for the Electric Storage Resource State of Charge.”<sup>15</sup> SPP proposes to define Self-Charging as “[w]ithdrawing Energy from the Transmission System without a Transmission Provider Dispatch Instruction to

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<sup>13</sup> Order No. 841, 162 FERC ¶ 61,127 at P 142.

<sup>14</sup> *Id.* P 253.

<sup>15</sup> SPP Compliance Filing, Transmittal at 32.

provide a service under the Tariff.”<sup>16</sup> SPP states that this definition will draw a distinction between Market Storage Resources that are following dispatch instructions to provide a service under the Tariff, and those that are managing their own state of charge and withdrawing energy from the transmission system of their own accord.<sup>17</sup>

- a. Please clarify how a Market Storage Resource will “self-charge” in the Integrated Marketplace. In your response, please describe the specific commitment status, any specific values for relevant offer parameters, or other indicators a Market Storage Resource would need to submit in order to “self-charge,” and explain if there is more than one method to “self-charge.” In addition, in your response, please indicate the relevant existing and/or proposed tariff sections that outline how a Market Storage Resource can “self-charge.”

SPP proposes Tariff language stating that, in the event of insufficient capacity during the Day-Ahead Market execution, the Security Constrained Unit Commitment (SCUC) algorithm may, among other things, “de-commit Self-Charging [Market Storage Resources]”<sup>18</sup> and that, during the Day Ahead and Intra-Day Reliability Unit Commitment execution, the SCUC algorithm may “de-commit self-committed charging Resources” until the shortage is eliminated.<sup>19</sup>

- b. Please clarify whether the proposed provisions to “de-commit self-committed charging Resources” to address insufficient capacity in the Day-Ahead and Intra-Day Reliability Unit Commitment processes apply to all Electric Storage Resources or only to Market Storage Resources. Please also explain any

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<sup>16</sup> SPP Compliance Filing, OATT, Sixth Revised Volume No. 1, Definitions, section 1.1, Definitions S.

<sup>17</sup> SPP Compliance Filing, Transmittal at 33-34.

<sup>18</sup> SPP Amendment Filing, OATT, Sixth Revised Volume No. 1, Attachment AE, section 5.1.2(1)(a)(i).

<sup>19</sup> SPP Compliance Filing, OATT, Sixth Revised Volume No. 1, Attachment AE, sections 5.2.2(2)(a) and 6.1.2(2)(a).

differences between the terms “self-committed charging Resources”<sup>20</sup> and “Self-Charging [Market Storage Resources].”<sup>21</sup>

### 5) Energy Used to Charge Electric Storage Resources

Order No. 841 added section 35.28(g)(9)(ii) to the Commission’s regulations to require that the sale of electric energy from RTO/ISO markets to an electric storage resource that the resource then resells back to those markets be at the wholesale locational marginal price (LMP).<sup>22</sup>

To help implement the new requirement in section 35.28(g)(9)(ii) of the Commission’s regulations, Order No. 841 required each RTO/ISO to implement metering and accounting practices as needed to address the complexities of implementing the requirement that the sale of electric energy from the RTO/ISO markets to an electric storage resource that the resource then resells back to those markets be at the wholesale LMP.<sup>23</sup> Order No. 841 also required 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).<sup>24</sup>

SPP notes that it does not directly meter any facility and that meter agents submit settlement meter values directly to SPP.<sup>25</sup>

Under SPP’s proposed Tariff provisions, electric storage resources not registered as Market Storage Resources are required to include any energy withdrawal from the transmission system in a load settlement location and are subject to the same rules as other load.<sup>26</sup> SPP’s proposed Tariff provisions further

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<sup>20</sup> SPP Compliance Filing, OATT, Sixth Revised Volume No. 1, Attachment AE, sections 5.2.2(2)(a) and 6.1.2(2)(a).

<sup>21</sup> SPP Amendment Filing, OATT, Sixth Revised Volume No. 1, Attachment AE, section 5.1.2(1)(a)(i).

<sup>22</sup> Order No. 841, 162 FERC ¶ 61,127 at P 294.

<sup>23</sup> *Id.* P 322.

<sup>24</sup> *Id.* P 326.

<sup>25</sup> SPP Compliance Filing, Transmittal at 42.

<sup>26</sup> *Id.* at 43; SPP Compliance Filing, OATT, Sixth Revised Volume No. 1,

specify that, as with other resources, the metering requirements for Market Storage Resources include real-time and settlement quality metering and that, for Market Storage Resources that are not directly connected to the transmission system, metering may include facilities used by the distribution company.<sup>27</sup> SPP states that, “consistent with the handling of pseudo-tied [r]esources, the actual meter values of distribution-sited Market Storage Resources may be split among the retail and wholesale use by the meter agent in both real-time and for settlement.”<sup>28</sup>

- a. Please explain how these proposed metering and accounting practices will meet the Commission’s requirement in Order No. 841 that the sale of electric energy from the RTO/ISO markets to an electric storage resource that the resource then resells back to those markets will be at the wholesale LMP, including for electric storage resources located on a distribution system or behind the meter, regardless of whether the electric storage resource is using the participation model for electric storage resources or another participation model.
- b. Please explain how these proposed metering and accounting practices will meet the Commission’s requirement in Order No. 841 that electric storage resources should be prevented from paying twice for the same charging energy.
- c. Please explain how the handling of metering and accounting for distribution-sited Market Storage Resources would be “consistent with the handling of pseudo-tie resources.” In your response, please provide citations to the relevant existing and/or proposed tariff sections that demonstrate these provisions.

This letter is issued pursuant to 18 C.F.R. § 375.307(b)(3)(ii) (2018) and is interlocutory. This letter is not subject to rehearing pursuant to 18 C.F.R. § 385.713 (2018). A response to this letter must be filed with the Secretary of the Commission within 30 days of the date of this letter. For your response, please use Type of Filing

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Attachment AE, section 2.17(1).

<sup>27</sup> SPP Compliance Filing, Transmittal at 43; SPP Compliance Filing, OATT, Sixth Revised Volume No. 1, Attachment AE, section 2.17(2)(d).

<sup>28</sup> SPP Compliance Filing, Transmittal at 43.

Docket No. ER19-460-000, et al.

- 8 -

Code 80, Compliance Filing. In addition, submit an electronic version of your response to Ms. Yasmine Jamnejad ([yasmine.jamnejad@ferc.gov](mailto:yasmine.jamnejad@ferc.gov)).

Failure to respond to this letter order within the time period specified may result in a further order rejecting your filing.

Issued by: Penny Murrell, Director, Division of Electric Power Regulation – Central

Document Content(s)

ER19-460-000 Data Request.DOCX.....1-8