

154 FERC ¶ 61,245
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;
Cheryl A. LaFleur, and Colette D. Honorable.

Wabash Valley Power Association, Inc.

Docket No. ER16-435-001

ORDER ACCEPTING AND SUSPENDING PROPOSED RATE SCHEDULE AND
ESTABLISHING HEARING AND SETTLEMENT JUDGE PROCEDURES

(Issued March 28, 2016)

1. On November 30, 2015, Wabash Valley Power Association, Inc. (WVPA) submitted a Reactive Tariff,¹ as a rate change under section 35.13 of the Commission regulations and section 205(d) of the Federal Power Act.² The filing sets forth WVPA's revenue requirements for the provision of Reactive Supply and Voltage Control from Generation or Other Sources Service (Reactive Service) from certain WVPA generating units in the Midcontinent Independent System Operator, Inc. (MISO) region. In this order, we accept WVPA's proposed Reactive Tariff for filing, and suspend it for a nominal period, to become effective February 1, 2016, subject to refund. We also establish hearing and settlement judge procedures.

¹ Wabash Valley Power Association, Inc., FERC FPA Electric Tariff, FERC Electric Tariff Volume No. 3 - Reactive Tariff – MISO, [Reactive Tariff - MISO, Reactive Tariff - MISO, 2.0.0](#).

² 18 C.F.R. § 35.13 (2015); 16 U.S.C. § 824d(d) (2012). WVPA filed this tariff as an initial baseline tariff in the Commission's eTariff system (Type of Filing Code 390) in order to establish a new tariff database for its Reactive Tariff. While this filing code may be used for either an initial rate or a rate change, the present filing is a proposed rate change under section 35.13 of the Commission's regulations, as WVPA's transmittal letter acknowledges, because WVPA has been providing reactive power service from facilities in both MISO and PJM Interconnection, L.L.C. (PJM) prior to the instant filing. See *Chehalis Power Generating, L.P.*, 152 FERC ¶ 61,050, at P 14 (2015) (citing *Southwestern Elec. Power Co.*, 39 FERC ¶ 61,099, at 61,293 (1987)) ("In order for a rate to be considered an initial rate, it must provide for a new service to a new customer.").

I. WVPA's Filing

2. WVPA states that it is a generation and transmission cooperative with its principal place of business in Indianapolis, Indiana. WVPA states that it is a non-profit corporation organized and existing pursuant to the Indiana Nonprofit Corporation Act.³

3. WVPA states that it has been compensated for its share of reactive revenue for Gibson Unit 5 and Wabash River Units 1 and 8, which it owns with Duke Energy Indiana, Inc. (Duke), under a black-box settlement agreement.⁴ WVPA states that in Docket No. ER16-200-000 Duke filed revisions to its Ancillary Services Tariff with the Commission, which, if approved by the Commission, will end compensation to WVPA under the black-box settlement.⁵

4. WVPA states that other than the generating units owned with Duke, it also has generating units that are providing reactive power that are not currently being compensated.⁶ WVPA states that the instant filing includes these units, which are in both the Duke and Hoosier Energy Electric Cooperative pricing zones.⁷

³ Transmittal at 2.

⁴ *Id.*

⁵ *Id.* at 2-3. On December 30, 2015, in Docket No. ER16-200-000, the Commission accepted Duke's proposed Ancillary Services Tariff (renamed Reactive Tariff) for filing, suspended it for a nominal period, subject to refund, and established hearing and settlement judge procedures. *Duke Energy Indiana, Inc.*, 153 FERC ¶ 61,349 (2015).

⁶ Transmittal at 3. In addition to the Gibson and Wabash River generating units, WVPA has ownership interests in Vermillion Units 1-8, Lawrence County Units 5 and 6, and landfill gas plants at Twin Bridges and Oak Ridge.

⁷ Schedule 2 of the MISO Open Access Transmission, Energy and Operating Reserve Markets Tariff, which covers Reactive Service, provides that MISO will compensate owners of generation and non-generation resources for maintaining the capability to provide reactive power to MISO. Specifically, Schedule 2 states that, for each month of Reactive Service provided by generation and non-generation resources in the MISO region, MISO shall pay each resource owner an amount equal to the resource owner's monthly revenue requirement, as accepted or approved by the Commission.

5. WVPA states that the facilities' revenue requirements have been calculated in accordance with the *AEP* Methodology,⁸ and consist of a Fixed Capacity Component and a Heating Losses Component.⁹ WVPA requests an effective date of February 1, 2016.

6. WVPA explains that it calculated the Fixed Capacity Component by: (1) identifying equipment associated with reactive power production and determining the installed cost of each asset; (2) calculating the reactive allocation factor for each category of reactive power production equipment and multiplying the installed cost of the reactive power production equipment by the reactive allocation factor; and (3) determining a fixed charge rate to apply to the allocated reactive power production equipment and multiplying that fixed charge rate by the reactive power production equipment investment.¹⁰ WVPA states that it analyzed the reactive portion of investment in the following: (1) the generator and associated exciter equipment; (2) generator step-up transformers; (3) accessory electrical equipment; and (4) the balance of the plant. WVPA states that because each of these groups of assets involves both real power and reactive power, the *AEP* methodology includes an allocation factor to separate each of the components between real and reactive power. WVPA states that the application of this allocation factor to each of the four groups of investments results in determining the cost of reactive power.¹¹

7. In determining the cost of capital, WVPA uses a return on equity of 12.38 percent based on its own return on equity because it is the owner of the connected transmission system.¹² WVPA asserts that the use of a 12.38 percent return on equity is consistent with the Commission's general policy of allowing the use of the authorized rate of return on common equity of the interconnected utility for Reactive Service compensation.¹³

⁸ *Am. Elec. Power Serv. Corp.*, Opinion No. 440, 88 FERC ¶ 61,141, at 61,456-57 (1999).

⁹ Transmittal at 4-5.

¹⁰ *Id.* at 5.

¹¹ Ex. WVPA-1 at 5.

¹² *Id.* at 9.

¹³ *Id.* (citing *Bluegrass Generation Co., L.L.C.*, 118 FERC ¶ 61,214, at P 86 (2007) (*Bluegrass*)).

8. WVPA notes that the MISO-wide return on equity is currently the subject of a complaint, under section 206 of the Federal Power Act, which has been set for hearing in Docket No. EL15-45-000.¹⁴ WVPA states that, to the extent that the proceeding in Docket No. EL15-45-000 results in a change to the MISO-wide return on equity, WVPA will adjust the fixed charge rate and resulting revenue requirement to reflect this outcome, and WVPA commits to make a compliance filing within 30 days of a final non-appealable order in that proceeding. WVPA also states that it will make the necessary refunds of reactive compensation that it may have collected between the effective date of its Reactive Tariff and resolution of the proceeding in Docket No. EL15-45-000.¹⁵

9. WVPA states that the Heating Losses Component recovers the costs of incremental heating losses that result from the production of reactive power. WVPA explains that the creation of reactive power results in an incremental current that flows inside the generator armature windings, the generator field winding, and the generator step-up transformer windings. WVPA states that, “[d]ue to the electrical resistance in each of the generator and [generator step-up transformer] windings, this incremental current causes real power to be consumed or ‘lost’ in the form of heat.”¹⁶

II. Notice and Responsive Pleadings

10. Notice of WVPA’s filing was published in the *Federal Register*, 80 Fed. Reg. 76,015 (2015), with interventions and protests due on or before December 21, 2015. Duke submitted a timely motion to intervene and comments. Duke states that it reviewed the filing and has no objections.

III. Deficiency Letter

11. On January 21, 2016, Commission staff issued a deficiency letter to WVPA requesting additional information. On January 28, 2016, WVPA submitted its response to the deficiency letter. Contemporaneously with its response, WVPA submitted an updated Reactive Tariff.

¹⁴ Transmittal at 6; *see also Arkansas Elec. Coop. Corp. v. ALLETE, Inc.*, 151 FERC ¶ 61,219 (2015) (setting for hearing a complaint regarding the return on equity for certain of MISO’s transmission-owning members).

¹⁵ Transmittal at 6.

¹⁶ *Id.* at 5; Ex. WVPA-1 at 10.

A. Notice of Deficiency Letter Response

12. Notice of WVPA's deficiency letter response in Docket No. ER16-435-001 was published in the Federal Register, 81 Fed. Reg. 5732 (2016), with interventions and protests due on or before February 18, 2016. On March 3, 2016, Hoosier Energy Rural Electric Cooperative, Inc. (Hoosier) filed a motion to intervene out-of-time and protest. On March 7, 2016, WVPA filed a motion to deny Hoosier's motion to intervene out-of-time and an answer to Hoosier's protest. On March 11, 2016, Hoosier filed an answer to WVPA's answer.

B. WVPA Deficiency Letter Response

13. Commission staff sought additional information in the deficiency letter on: (1) why Exhibit No. WVPA-3, Schedule 5, at page 2 showed three Vermillion transformers to have the same heating losses; (2) which generator unit(s) are used from the Twin Bridges and Oakridge facilities referenced on Exhibit No. WVPA-1, at page 4, lines 17-18; (3) how one would identify "stray load losses" that are attributable to the production of reactive power versus "stray load losses" that are attributable to real power production; (4) how calculating heating loss by using average nodal price is consistent with Opinion No. 498; and (5) how a calculation utilizing average values for heating loss satisfies the Commission's requirement to use actual fuel burned to calculate heating losses for compensation.

14. Regarding Commission staff's first question, WVPA states that the heating losses of three of the four Vermillion transformers are the same, as shown on Exhibit No. WVPA-3, Schedule 5, because the transformers are identical units dispatched by MISO in an identical manner. WVPA states that testing was available for only two of the four Vermillion transformers. WVPA states that it utilized the lower value test information for the two transformers for which test data was not available.¹⁷

15. Regarding the second question, WVPA states that the Twin Bridges facility includes eight identical 0.8 megawatt (MW) caterpillar diesel generating units, and the Oakridge facility includes four identical 0.8 MW caterpillar diesel generating units. WVPA states that it submitted the updated Reactive Tariff to identify the individual units.¹⁸

¹⁷ WVPA January 28, 2016 Response (Response) at 2.

¹⁸ *Id.* at 2-3.

16. Regarding the third question, WVPA states that “stray load losses,” as WVPA witness Heintz uses the term, refers to the following concept: the creation of reactive power results in an increase of current in the form of incremental current in addition to the current that flows due to the production of real power. WVPA states that this incremental current flows inside the generator armature (stator) windings, inside the generator field winding, and inside the GSU windings. WVPA states that due to the electrical resistance in each of the generator and GSU windings, this incremental current causes real power to be consumed or “lost” in the form of heat. WVPA states that the aforementioned concept explains also why stray load losses are related only to reactive power production. WVPA further clarifies that when a generator operates at a power factor other than unity (or 1.0), higher currents are produced in the generator and generator step-up transformer. These higher currents cause significant losses to occur from resistive heating or I²R losses associated with the armature winding and field winding of the generator, as well as increased eddy currents or stray losses. WVPA states that these losses can be calculated as the real power that is consumed to produce reactive power and therefore, a cost that is directly attributable to reactive power production.¹⁹

17. Regarding the fourth question, WVPA states that the Commission's Opinion No. 498 allowed variable costs of heating losses but found that the fixed cost of heating losses would over recover the fixed costs, and that Mr. Heintz has included only the variable costs of heating losses consistent with Opinion No. 498. WVPA states that Mr. Heintz has used the actual average nodal price and the actual heating losses in the generators and transformers based on actual average output at the actual average power factor for the hours the generator actually ran. WVPA further adds that Mr. Heintz's calculations use actual costs and actual average unit performance (actual megavolt-ampere reactive (MVAR) production, actual MW loadings, and actual hours per year), as opposed to a hypothetical calculation assuming maximum reactive power production for all hours. WVPA states that the average nodal price is the price WVPA would have received for its power had it not been lost due to generating reactive power.²⁰

18. Regarding the fifth question, WVPA states that the heating losses in MW were calculated as the losses associated with the production on zero reactive power and the losses associated with the production of the actual average power factor. WVPA states that as a result, the heating losses reflect the actual losses of running the generator at the actual average power factor, not at a hypothetical power factor.²¹

¹⁹ *Id.* at 3.

²⁰ *Id.* at 4-5.

²¹ *Id.* at 5.

C. Protest

19. Hoosier argues that WVPA's filing is deficient and that the Commission should either reject the filing or set it for hearing and settlement proceedings.²² Hoosier asserts that WVPA has not supported its request to use the 12.38 percent return on equity authorized for the provision of transmission service by the MISO Transmission Owners. Hoosier also states that, if the Commission decides to accept WVPA's return on equity proposal, the reduced return on equity and refund condition should take effect upon the effective date set by the Commission in Docket No. EL15-45 for the provision of transmission service, and, contrary to WVPA's refund commitment, should not be delayed until an order in that docket becomes final and non-appealable.²³ In addition, Hoosier argues that WVPA has failed to show whether and, if so, how WVPA will account for the planned retirement of Wabash River Unit 1.

IV. Discussion

A. Procedural Matters

20. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2015), Duke's timely, unopposed motion to intervene serves to make it a party to this proceeding. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2015), the Commission will grant Hoosier's late-filed motion to intervene given its interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

21. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2015), prohibits an answer to a protest or an answer unless otherwise ordered by the decisional authority. We are not persuaded to accept WVPA's or Hoosier's answers and will, therefore, reject them.

B. Substantive Matters

22. Our preliminary analysis indicates that WVPA's filing has not been shown to be just and reasonable and may be unjust, unreasonable, unduly discriminatory or preferential, or otherwise unlawful. Accordingly, we accept WVPA's proposed Reactive Tariff for filing, suspend it for a nominal period, to be effective February 1, 2016, subject to refund, and establish hearing and settlement judge procedures. We find that WVPA's proposed revenue requirement for Reactive Service provided by its facilities raises

²² Protest at 1.

²³ *Id.* at 3.

disputed issues of material fact that cannot be resolved based on the record before us, and that are more appropriately addressed in the hearing and settlement judge procedures ordered below.

23. One of the concerns identified in our preliminary analysis of WVPA's proposed Reactive Power Tariff is WPVA's use of locational marginal price (LMP) to calculate the Heating Losses Component of its reactive power revenue requirement. As explained below, this is contrary to Commission precedent.

24. We take this opportunity to provide general guidance to filers of cost-based reactive power tariffs.²⁴ In reviewing proposed reactive power rates, the Commission applies the *AEP* methodology.²⁵ The Commission has received a number of cost-based reactive power tariff filings that have included apparent errors in the application of the *AEP* methodology and that have not been supported by the required cost information.²⁶ We provide the guidance herein to ensure that the Commission has sufficient information to evaluate whether the reactive power rate is just and reasonable.

25. Under the *AEP* methodology, generators receive compensation for a portion of their remaining production plant investment, which includes fixed costs associated with heating losses.²⁷ However, the Commission also has explained: "While the *AEP* methodology is limited to fixed cost recovery, if an applicant could demonstrate that it incurs variable costs associated with heating losses, we would consider such recovery."²⁸ Some generators have sought to recover fixed costs associated with reactive power heating losses as part of their variable cost component associated with heating

²⁴ We note that Commission staff will convene a workshop to discuss compensation for Reactive Service in the markets operated by Independent System Operators and Regional Transmission Organizations. *See Reactive Supply Compensation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Notice of Workshop, Docket No. AD16-17-000 issued March 17, 2016.

²⁵ *See* Opinion No. 440, 88 FERC at 61,456-57.

²⁶ *See, e.g., PSEG Energy Resources & Trade, LLC*, 152 FERC ¶ 61,113 (2015); *Newark Energy Center, LLC*, 152 FERC ¶ 61,188 (2015); *Garrison Energy Center, LLC*, 153 FERC ¶ 61,241 (2015); *Scrubgrass Generating Company, L.P.*, 152 FERC ¶ 61,220 (2015).

²⁷ *Dynegy Midwest Generation, Inc.*, Opinion No. 498, 121 FERC ¶ 61,025, at P 69 (2007).

²⁸ *Id.* P 71.

losses. We reiterate here that this approach is not appropriate and that the fixed and variable costs associated with heating losses are two distinct costs that must be accounted for separately. Allowing recovery of fixed costs related to heating losses as part of their variable heating loss component would amount to double recovery of fixed costs for heating losses because those fixed costs are already included in their reactive power portion of the production plant investment.²⁹

26. Commission precedent requires that recovery of variable costs related to heating losses be based on “the actual amount of heating loss costs incurred based on the [megawatt (MW)]-hours of actual reactive power production.”³⁰ In past filings, however, some generators have assumed maximum reactive power output when calculating heating losses. Because generators are very unlikely to run at their maximum level of reactive power capability for the entire operating year, this is an unrealistic representation of “actual” reactive power production. The Commission will consider proxy data when actual operating data is not available, including, for example, proxy data from a similar facility.³¹

27. In recent filings, companies have sought to use LMP as an estimate of heating losses costs. The Commission has found, however, that LMP is not appropriate for the calculation of costs due to heating losses.³² While generators must produce reactive power within the required power factor range without changing their real power output,³³ and the Commission has found that there are no lost opportunity costs associated with heating losses,³⁴ the production of reactive power may increase the variable costs of producing energy by increasing fuel consumption, even within the required power factor range. Therefore, the generator is permitted to recover the added incremental fuel and variable costs, if any, of producing reactive power in the form of heating losses.

²⁹ *Id.*

³⁰ *Id.*

³¹ *Dynegy Midwest Generation, Inc.*, 125 FERC ¶ 61,280, at P 34 (2008).

³² *Id.* PP 35-37.

³³ Section 9.6.1 of the *pro forma* LGIA and section 1.8.1 of the *pro forma* SGIA (requiring that generators be designed to maintain a composite power delivery at continuous rated power output within the standard power factor range).

³⁴ Opinion No. 498, 121 FERC ¶ 61,025 at P 71 (“[W]e affirm the Presiding Judge that [Dynegy Midwest Generation, Inc.] incurs no opportunity costs due to heating losses for the reasons stated in the Initial Decision.”).

However, to avoid over-recovery of heating losses, we reiterate that costs for heating losses must be calculated based on actual fuel costs and any other variable expenses incurred due to reactive power production, unless only proxy data is available, and not based on LMP. As mentioned above, the Commission will consider proxy data when actual operating data is not available.³⁵

28. We also reiterate that revenue requirements established pursuant to Schedule 2 of the *pro forma* Open Access Transmission Tariff are for Reactive Supply and Voltage Control, and are based on a particular level of reactive power capability for a particular generating unit or group of units.³⁶ Where the Commission is aware of a generator owner receiving payments for a generating unit that is no longer capable of providing reactive power, or for a generating unit with degraded reactive power capability, the Commission will take appropriate action, including establishing a proceeding under section 206 of the FPA³⁷ and/or making a referral to the Commission's Office of Enforcement.³⁸ In particular, if a generating unit is deactivated, or if the reactive power capability of a generating unit has degraded since the Commission approved the relevant reactive power revenue requirement (and the generating unit has not been refurbished or had generating equipment replaced), the payment for Reactive Supply and Voltage Control from that generating unit should reflect such circumstance.

29. Lastly, the Commission's regulations require a "summary statement of all cost . . . computations involved in arriving at the derivation of the level of the rate, in sufficient detail to justify the rate . . ." ³⁹ To satisfy this requirement, reactive power revenue requirement filings must include cost information for all equipment used to produce reactive power, including for turbogenerators, generators, exciters, and step-up transformers. Moreover, to support the reactive power allocator used in the *AEP* methodology, reactive power revenue requirement filings must include reactive power

³⁵ *Id.* P 37.

³⁶ Opinion No. 498, 121 FERC ¶ 61,025 at PP 3-5. This is true even if the Commission-approved reactive power revenue requirement was established through a settlement because the settled rate would have been for a particular set of generating units and a particular level of reactive power capability.

³⁷ 16 U.S.C. § 824e (2012).

³⁸ *See, e.g., RC Cape May Holdings, LLC*, 152 FERC ¶ 61,224, at P 20 (2015); *PSEG Energy Resources & Trade, LLC*, 152 FERC ¶ 61,113, at P 12 (2015); *FirstEnergy Sols. Corp.*, 152 FERC ¶ 61,164, at P 15 (2015).

³⁹ 18 C.F.R. § 35.12(b)(2)(ii) (2015).

test reports. In other words, the cost figures provided with reactive power revenue requirement filings must be sufficiently detailed for the Commission to be able to evaluate and analyze the proposed revenue requirement.

30. While we are setting matters related to WVPA's filing for a trial-type evidentiary hearing, we encourage the parties to make every effort to settle their dispute before hearing procedures commence. To aid the parties in their settlement efforts, we will hold the hearing in abeyance and direct that a settlement judge be appointed, pursuant to Rule 603 of the Commission's Rules of Practice and Procedure.⁴⁰ If the parties desire, they may, by mutual agreement, request a specific judge as the settlement judge in the proceeding; otherwise the Chief Judge will select a judge for this purpose.⁴¹ The settlement judge shall report to the Chief Judge and the Commission within thirty (30) days of the date of the appointment of the settlement judge, concerning the status of settlement discussions. Based on this report, the Chief Judge shall provide the parties with additional time to continue their settlement discussions or provide for commencement of a hearing by assigning the case to a presiding judge.

The Commission orders:

(A) WVPA's proposed Reactive Tariff is hereby accepted for filing and suspended for a nominal period, to become effective February 1, 2016, subject to refund, as discussed in the body of this order.

(B) Pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Energy Regulatory Commission by section 402(a) of the Department of Energy Organization Act and the FPA, particularly sections 205 and 206 thereof, and pursuant to the Commission's Rules of Practice and Procedure and the regulations under the FPA (18 C.F.R. Chapter I), a public hearing shall be held concerning the justness and reasonableness of WVPA's Reactive Tariff, as discussed in the body of this order. However, the hearing shall be held in abeyance to provide time for settlement judge procedures, as discussed in Ordering Paragraphs (C) and (D) below.

⁴⁰ 18 C.F.R. § 385.603 (2015).

⁴¹ If the parties decide to request a specific judge, they must make their joint request to the Chief Judge by telephone at (202) 502-8500 within five (5) days of this order. The Commission's website contains a list of Commission judges available for settlement proceedings and a summary of their background and experience (<http://www.ferc.gov/legal/adr/avail-judge.asp>).

(C) Pursuant to Rule 603 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.603 (2015), the Chief Administrative Law Judge is hereby directed to appoint a settlement judge in this proceeding within fifteen (15) days of the date of this order. Such settlement judge shall have all powers and duties enumerated in Rule 603 and shall convene a settlement conference as soon as practicable after the Chief Judge designates the settlement judge. If the parties decide to request a specific judge, they must make their request to the Chief Judge within five (5) days of the date of this order.

(D) Within thirty (30) days of the appointment of the settlement judge, the settlement judge shall file a report with the Commission and the Chief Judge on the status of the settlement discussions. Based on this report, the Chief Judge shall provide the parties with additional time to continue their settlement discussions, if appropriate, or assign this case to a presiding judge for a trial-type evidentiary hearing, if appropriate. If settlement discussions continue, the settlement judge shall file a report at least every sixty (60) days thereafter, informing the Commission and the Chief Judge of the parties' progress toward settlement.

(E) If settlement judge procedures fail and a trial-type evidentiary hearing is to be held, a presiding judge, to be designated by the Chief Judge, shall, within fifteen (15) days of the date of the presiding judge's designation, convene a prehearing conference in these proceedings in a hearing room of the Commission, 888 First Street, NE, Washington, DC 20426. Such a conference shall be held for the purpose of establishing a procedural schedule. The presiding judge is authorized to establish procedural dates, and to rule on all motions (except motions to dismiss) as provided in the Commission's Rules of Practice and Procedure.

By the Commission. Commissioner Clark is not participating.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.