

114 FERC ¶ 61,035  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;  
Nora Mead Brownell, and Suedeen G. Kelly.

East Kentucky Power Cooperative, Inc.

Docket Nos. TX05-1-000  
TX05-1-001  
TX05-1-002  
TX05-1-003  
TX05-1-004  
TX05-1-005

FINAL ORDER DIRECTING INTERCONNECTION AND ACCEPTING  
INTERCONNECTION AGREEMENT, AS MODIFIED

(Issued January 19, 2006)

1. This is the Commission's Final Order under sections 210 and 212 of the Federal Power Act (FPA)<sup>1</sup> directing the Tennessee Valley Authority (TVA)<sup>2</sup> to interconnect its transmission system with East Kentucky Power Cooperative, Inc.'s (EKPC)<sup>3</sup> transmission system, and to provide coordination services necessary for EKPC to deliver

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<sup>1</sup> 16 U.S.C. §§ 824i and 824k (2000).

<sup>2</sup> TVA is a wholly-owned corporate agency and instrumentality of the United States government organized under the Tennessee Valley Authority Act of 1933. TVA produces and sells electric power in seven states at wholesale for resale to municipal and cooperative distributors and at retail to large industrial customers and to several government facilities. TVA owns and operates an extensive transmission system that is interconnected with the transmission systems of neighboring electric utilities, including EKPC's transmission system. EKPC currently is interconnected to TVA's transmission system at six locations.

<sup>3</sup> EKPC is an electric generation and transmission cooperative in Kentucky. It supplies electric power to its electric distribution cooperative members that serve retail electric customers in central and eastern Kentucky. As a cooperative with outstanding Rural Utilities Service debt, EKPC is not a Commission-jurisdictional public utility, but it has a reciprocity Open Access Transmission Tariff on file with the Commission. See *East Kentucky Power Cooperative, Inc.*, Docket No. NJ97-14-000, unpublished letter order dated December 17, 1997.

energy to Warren Rural Electric Cooperative Corporation (Warren).<sup>4</sup> The Final Order concludes that the revised System Impact Study is adequate to support the directed interconnection, and accepts the Interconnection Agreement, subject to certain modifications.

## **I. Background**

2. On April 14, 2005, the Commission issued a Proposed Order which directed TVA to interconnect its transmission system with EKPC's at three points.<sup>5</sup> As discussed in the Proposed Order, section 210(c) requires that, in order for the Commission to direct an interconnection, it must find that the interconnection is in the public interest and that the proposed interconnection will meet at least one of the three specified criteria, *i.e.*, it will encourage conservation of energy or capital, optimize efficiency of facilities and resources, or improve the reliability of any electric utility system to which the order applies.<sup>6</sup> The Commission found that EKPC met these criteria because: (1) the requested interconnections would enable EKPC to enlarge its membership and to optimize the use of system resources; (2) the requested interconnections would encourage the conservation of energy and capital by providing Warren with access to more economical sources of power; and (3) the requested interconnections would optimize the use of existing facilities by allowing increased competition.<sup>7</sup> The Commission concluded that it was therefore in the public interest to issue the Proposed Order directing interconnection.

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<sup>4</sup> Warren is a distribution cooperative serving approximately 54,000 customers in south central Kentucky. Warren operates 5,000 miles of 13 kV distribution facilities, 200 miles of 69 kV sub-transmission facilities and 37 substations. TVA provides Warren with the electric power Warren needs to serve its customers through the following five delivery points on TVA's transmission system: Aberdeen Gap, East Bowling Green, Bristow, Memphis Junction and Franklin. As provided in the Warren/TVA Power Contract covering provision of this service, Warren notified TVA that it would terminate the agreement on April 1, 2008. At that time, EKPC will begin supplying electric power to Warren under a 33-year full-requirements wholesale power contract. TVA rejected EKPC's proposals for EKPC to purchase transmission service from TVA in order to move power from EKPC to Warren.

<sup>5</sup> *East Kentucky Power Coop., Inc.*, 111 FERC ¶ 61,031 (2005) (Proposed Order).

<sup>6</sup> *Id.* at P 37.

<sup>7</sup> *Id.* at P 38.

3. In the Proposed Order, the Commission also ordered further procedures to allow the parties to establish the terms and conditions of the interconnection agreement, and offered settlement judge procedures to facilitate the parties' negotiations.

**A. May 31 Briefs**

4. The parties subsequently were unable to reach any agreement on the terms and conditions for the interconnection agreement directed in the Proposed Order. As a result, upon expiration of the negotiation period provided in the Proposed Order, the parties filed briefs on unresolved issues with the Commission on May 31, 2005.<sup>8</sup>

5. In its May 31 Brief, EKPC submitted an existing interconnection agreement with TVA, amended to include the requested interconnections with TVA (EKPC's Proposed Interconnection Agreement). In addition, EKPC modified the interconnections included in its initial interconnection request to add new interconnection points and shift one of the interconnection points.<sup>9</sup> EKPC's Proposed Interconnection Agreement obligated EKPC to reimburse TVA for costs associated with the installation, operation and maintenance of the interconnection facilities and provided for certain coordination services, such as voltage support and back-up power service, associated with the interconnection.

6. TVA also submitted a brief on May 31, 2005. However, TVA did not file a proposed Interconnection Agreement; instead, TVA argued that the existing interconnection agreement between TVA and EKPC should not be amended because

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<sup>8</sup> EKPC supplemented its May 31 Brief with filings made on June 1, 2005 and June 2, 2005.

<sup>9</sup> Specifically, EKPC made four modifications to the proposed physical interconnections first outlined in its initial interconnection request, including: (1) lengthening the line of the Barren County-Magna 161 kV line to more accurately reflect the siting of that line; (2) including a 161 kV power circuit breaker between two Warren-owned transformers at the East Bowling Green Substation; (3) constructing additional facilities at the Memphis Junction Substation to provide it with two sources of power independent of TVA in the Memphis Junction area; and (4) relocating the interconnection originally proposed at Franklin Substation to Salmons Substation. In addition, EKPC identified additional modifications to the Warren 69 kV distribution system and the Barren County-Magna 161 kV line to reflect further engineering considerations associated with the upgrade of certain Warren distribution facilities and siting issues.

such an amendment would materially change previously negotiated terms and conditions in the agreement. TVA also argued that the Commission lacked the authority to require amendment of an existing agreement between two non-jurisdictional utilities.

7. In its May 31 Brief, TVA offered numerous arguments in opposition to EKPC's interconnection request, some having been raised in its initial protests, including, but not limited to, the following: (1) EKPC's interconnection request, in reality, is a request for transmission; (2) inadvertent loop flows that would result from the interconnection are, in reality, transmission service; (3) a Commission order to make the interconnection would deviate from existing Commission policy and federal law; and (4) a Commission order directing interconnection, in effect, would bundle physical interconnection with delivery service, thereby reversing the Commission's current interconnection policy which recognizes that interconnection by itself conveys no right to delivery service. In addition, TVA raised new arguments, including: (1) unauthorized loop flows constitute a service for which a transmission rate may be charged; (2) the interconnections requested by EKPC are not true interconnections because they are not capable of bi-directional flows; (3) the Commission must do a more thorough cost analysis in this proceeding before directing the interconnection; and (4) TVA cannot provide the coordination services, *i.e.*, voltage support and backup services, because it would be required to dedicate capacity and transmission facilities to the production of reactive power.

#### **B. Commission's August 3 Order**

8. On August 3, 2005, the Commission issued an order rejecting EKPC's submission of an amended existing interconnection agreement and directing TVA to file an interconnection agreement including the rates, terms and conditions for the interconnection as well as the coordination services necessary for EKPC to deliver energy to Warren.<sup>10</sup> The Commission also found that EKPC did not support its contention that its modifications to the initial interconnection request did not change the System Impact Study findings, and directed the parties to file revised System Impact Studies reflecting EKPC's modifications. The Commission also addressed TVA's arguments against the interconnection.

#### **C. Revised System Impact Studies**

9. On August 18, 2005, as amended on August 19, 2005, EKPC filed a revised System Impact Study, which incorporates the changes proposed by EKPC subsequent to

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<sup>10</sup> 112 FERC ¶ 61,160 (2005) (August 3 Order).

its initial interconnection request.<sup>11</sup> According to EKPC, its revised System Impact Study indicates that the proposed interconnections and system modifications, when compared to the current system configuration, result in the following effects during certain contingencies: (1) resolution of previously existing overloads on eleven transmission lines and six transformers; (2) reduction in (but not resolution of) previously existing overloads on two transformers; (3) no effect on previously existing overloads on three transformers; (4) an increase in loading that results in overload of five components, with equipment upgrades or reconfigurations proposed to resolve each overload; (5) an increase in loading on one transformer from 99 percent of emergency rating to 100 percent of emergency rating;<sup>12</sup> and (6) an increase in loading on another transformer from a previously overloaded level of 101 percent of emergency rating to 102 percent of emergency rating.<sup>13</sup>

10. TVA filed its revised System Impact Study on September 20, 2005. TVA indicates that, in contrast to the exchange of information with EKPC that took place in performing the System Impact Study for the original interconnection request, it now relied only on the information in EKPC's revised System Impact Study and its best engineering judgment.

11. TVA states that it adjusted the previous model to reflect the following EKPC proposed configuration changes: (1) the transmission line for Barren County to Wilson is increased from 24 miles to 28.29 miles; (2) the existing 69 kV transmission line between East Bowling Green and Oakland is upgraded with a 954 ACSS conductor; (3) the addition of an additional circuit breaker at the EKPC East Bowling Green Substation;<sup>14</sup>

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<sup>11</sup> See EKPC's revised System Impact Study at 1 and 2 for a detailed list of the modifications studied.

<sup>12</sup> EKPC indicates it will review and resolve this load increase with the owner, LG&E Energy LLC (LGEE).

<sup>13</sup> EKPC indicates that it also will review and resolve this load increase with LGEE.

<sup>14</sup> TVA notes that, for purposes of this revised System Impact Study, no modeling values needed to be changed for this configuration change. However, TVA states that it does not understand how adding the additional circuit breaker would eliminate the three terminal lines at the East Bowling Green Substation, as indicated in EKPC's revised System Impact Study.

(4) elimination of the BGMU Tap – Memphis Junction 161 kV transmission line to be replaced by a loop to be constructed from GM to Memphis Junction and from Aberdeen to Memphis Junction; (5) a new breaker station will be constructed at Plano that will cause a new line to be constructed; (6) an existing Warren 69 kV transmission line from East Bowling Green to West Bowling Green and a new 69 kV transmission line will be constructed from Memphis Junction to West Bowling Green with 556 MCM ACSR conductors; and (7) a 69 kV transmission line will be added to the Warren system between Aberdeen and Morgantown and the existing Morgantown to South Morgantown 64 kV transmission line will be opened.

12. According to TVA, its analysis reveals no violations for the “local area” beyond those identified in its initial System Impact Study.<sup>15</sup> However, TVA states that additional overloads are anticipated in the future as Warren’s load changes over time, and reiterates that significant quantities of Warren load would be served from the TVA transmission system. TVA provides the following example to support these conclusions. TVA assumes that there will be a load growth of 3 percent per year by Warren with a 16 percent power transfer distribution factor and a 36 percent outage transfer distribution factor during the critical contingency for the Bowling Green to South Bowling Green 161 kV transmission line. According to TVA, should that load growth occur, certain TVA facilities that were unloaded as a result of EKPC’s requested interconnections would overload again in approximately seven years, even if those facilities carried no power other than flows to Warren. TVA argues that these lines will actually overload “much sooner,” since the lines also carry other TVA load.

13. TVA concludes that, while the addition of the EKPC transmission line does unload some TVA facilities in the “local area,” this would last only for a short period of time. TVA concludes further that, since the configuration between TVA and Warren changes very little, the load in Warren will continue to have a significant impact on TVA.

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<sup>15</sup> TVA explains that, when it performs a System Impact Study associated only with interconnection, it reports criteria violations in a “local area,” which is within 10 buses from the point of connection. According to TVA, for this reason, any impacts mentioned will be concentrated in the general area around Warren. However, TVA states that it should be recognized that wider impacts associated with the flows of power from EKPC across the TVA transmission system to Warren may, in fact, occur. TVA avers that it needs to do a more comprehensive study over time examining the entire TVA transmission system to identify the impacts associated with these flows.

14. On October 11, 2005, EKPC filed comments on TVA's revised System Impact Study. EKPC takes issue with TVA's contention that the proposed interconnections would have "adverse impacts" on TVA's transmission system. EKPC also disagrees with TVA's conclusions about Warren's load growth and its effect on TVA's transmission system. EKPC states that TVA's allegations do not identify the specific facilities adversely affected, the extent or nature of the adverse impacts, or the improvements (if any) required to mitigate the adverse impacts. Furthermore, EKPC maintains, TVA is making claims about adverse impacts to its transmission system beyond the year 2010, even though TVA's System Impact Study was limited to the year 2010.

15. EKPC also takes issue with TVA's example of the effects of Warren's load growth on the Bowling Green to South Bowling Green 161 kV transmission line. EKPC argues that TVA provided no support for its 36 percent outage transfer distribution factor. According to EKPC, its analysis shows the outage transfer distribution factor would be no more than 26 percent. EKPC estimates that, when TVA's 36 percent outage transfer distribution factor is applied to EKPC's revised System Impact Study, the Bowling Green to South Bowling Green 161 kV transmission line will not overload until 2026. Moreover, when EKPC's 26 percent outage transfer distribution factor is applied, EKPC predicts that the line will not overload until 2030.

16. According to EKPC, it is unclear how TVA arrived at the line impedance values used in TVA's revised System Impact Study. EKPC notes that, while most of the assumptions used by TVA to calculate line impedance values appear very close to those used by EKPC, TVA's impedance values for the East Bowling Green to Oakland line and the Aberdeen to Morgantown line do not agree with EKPC's assumptions. However, EKPC states that TVA's calculations with respect to these two lines would not affect the overall impact of the proposed interconnections to the TVA transmission system, since both lines are radial in nature.

#### **D. TVA's Proposed Interconnection Agreement**

17. TVA filed a proposed Interconnection Agreement on September 7, 2005, in compliance with the August 3 Order. TVA states that its proposed Interconnection Agreement for the interconnection with EKPC "incorporates TVA's standard interconnection agreement provisions, which have been used to design, construct, and operate numerous large interconnection projects on the TVA transmission system."<sup>16</sup>

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<sup>16</sup> TVA's September 7 Filing at 1.

TVA further states that “[p]rovisions were also added to allow for the FERC-authorized power flows and coordination services, thereby enabling EKPC to serve Warren. For lack of a better term, TVA has labeled this transaction as a ‘delivery service.’”<sup>17</sup>

18. In general, TVA’s proposed Interconnection Agreement: (1) establishes certain requirements and procedures for construction, operation and maintenance of the interconnection facilities and required network upgrades; (2) provides various agreements to be entered into by the parties for engineering studies of the effects of the loop flows (or what TVA refers to as “FERC-authorized flows”) on TVA’s transmission system, to be performed on an initial and annual basis; (3) provides a blank “Facilities Matrix” and “Facilities Configuration” within which the parties are to identify and describe the facilities to be installed by each party, after the completion of various studies, discussions and coordination; (4) establishes provisions for billing and credit; (5) establishes an Operating Committee to coordinate certain operation, maintenance, and scheduling responsibilities; (6) establishes a “delivery service” with rates, terms and conditions adopted from Schedules I and II of TVA’s Transmission Service Guidelines for firm point-to-point transmission service; (7) establishes that “Scheduling, System Control, and Dispatch Service” and “Reactive Supply and Voltage Control Service” will be provided under Schedules 1 and 2 of TVA’s Transmission Service Guidelines; and (8) establishes the term and termination provisions for the proposed Interconnection Agreement.<sup>18</sup>

19. EKPC filed comments on TVA’s proposed Interconnection Agreement on October 7, 2005. EKPC argues that TVA’s treatment of loop flow as firm point-to-point transmission service is not in the public interest and should be rejected. Furthermore, EKPC argues that the very basis for TVA’s request for loop flow compensation is inconsistent with established Commission policy that such compensation may be allowed only after a transmission provider has demonstrated that a particular instance of loop flow

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<sup>17</sup> *Id.* at 2.

<sup>18</sup> The initial term of TVA’s proposed Interconnection Agreement is ten years, which is extended year-to-year unless terminated. However, the proposed Interconnection Agreement allows for termination at any time during the ten year period in the following circumstances: (1) EKPC may terminate the agreement for any reason upon 60 days’ written notice; (2) TVA may terminate the agreement upon 60 days’ written notice for various financial or procedural defaults by EKPC of the agreement; and (3) automatic termination if EKPC is unwilling to pay for any modifications found to be necessary by any follow-up Facilities Study required in the agreement. *See* September 7 Filing at 5 and Articles BA-3.

constitutes a “burden” on its system, and after such transmission provider has been unable to resolve such disputes through mutually acceptable operating practices or other means of coordination.<sup>19</sup> EKPC maintains that TVA has at this time neither demonstrated that any burden exists, nor attempted to resolve problems associated with any such burdens through coordination, and thus has not met the standard for loop flow compensation established under *AEP I*.

20. EKPC further argues that TVA’s proposal to treat loop flow as firm point-to-point transmission service is unsupported and inconsistent with the established treatment of loop flows under the Commission’s longstanding contract path approach, and that any compensation for loop flow that is ordered should instead be based on the costs necessary to mitigate a demonstrated burden. EKPC states that the Commission’s acceptance of TVA’s proposed treatment of loop flow as firm point-to-point transmission service “would open the door for all public utilities to file similar compensation provisions,” and that, even if the Commission were inclined to make such a drastic policy shift as TVA is requesting, a section 210 interconnection proceeding would not be the appropriate vehicle for a move with such generic implications.<sup>20</sup>

21. EKPC then objects to certain requirements relating to costs associated with TVA’s initial and revised System Impact Studies. EKPC states that, while it is willing to pay for the cost of conducting engineering studies reasonably required to evaluate the effect of the interconnections to TVA’s transmission system, it should not be required to pay for the “flawed TVA studies conducted to date,”<sup>21</sup> or for annual follow-up studies not ordinarily required by standard industry practices for system-to-system interconnections. EKPC argues that “EKPC should not be responsible for costs associated with TVA studies that employed an incorrect base case and therefore produced meaningless results. According to EKPC, if anything, TVA should compensate EKPC for the time and costs

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<sup>19</sup> Citing *American Electric Power Service Corp.*, 49 FERC ¶ 61,377 at 62,381 (1989) (*AEP I*); *Southern Company Services*, 60 FERC ¶ 61,273 at 61,928 (1992) (*Southern*) and *American Electric Power Service Corp.*, 93 FERC ¶ 61,151 at 61,474 (2000) (*AEP II*). Also citing *Inquiry Concerning the Commission’s Pricing Policy for Transmission Services Provided by Public Utilities Under the Federal Power Act; Policy Statement (Transmission Pricing Policy Statement)*, FERC Stats. & Regs. ¶ 31,005 at n. 36 (1994).

<sup>20</sup> EKPC October 7 Comments at 9.

<sup>21</sup> *Id.* at 11.

incurred in having to litigate the point before the Commission.”<sup>22</sup> With respect to the follow-up studies, EKPC states that such studies do not represent standard industry practices and are unnecessarily burdensome. EKPC argues, further, that the need for follow-up studies is premised upon TVA’s decision to treat loop flows as firm point-to-point transmission service.

22. EKPC challenges provisions in the proposed Interconnection Agreement that would require EKPC to compensate TVA for modifications and network upgrades to TVA’s transmission system required to accommodate delivery service and coordination service associated with EKPC’s requested interconnections.<sup>23</sup> According to EKPC, TVA proposes to assess costs for these network upgrades as if EKPC were a firm point-to-point transmission customer. EKPC argues that it should not be subject to an open-ended obligation of compensating TVA for network upgrades as if EKPC were a direct transmission customer of TVA, and that even direct transmission customers are not obligated under Commission policy to compensate a transmission provider for network upgrades. According to EKPC, network upgrades, by definition, are those required to maintain a transmission provider’s network system, and must be rolled into the transmission provider’s transmission rates.

23. EKPC also challenges the Term and Termination provisions, maintaining that the proposed initial term of 10 years, followed by an extension of the original term on a year-to-year basis, is inadequate. EKPC argues that, because the agreement governs not only the construction of interconnection facilities, but also the continued operation of such facilities, the term of the agreement should run concurrently with EKPC’s Agreement with Warren, which has a thirty-year term.<sup>24</sup> EKPC proposes that, if the Commission

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<sup>22</sup> *Id.* at 12.

<sup>23</sup> *Id.*, Article BA-6, Modifications to the TVA Transmission System Resulting from the FERC-Ordered Interconnection Points and the Provision of Delivery Service, and Article FP-3, Network Upgrades. EKPC notes that Article FP-3 appears to duplicate portions of Article BA-6.

<sup>24</sup> *Citing Standardization of Generation Interconnection Agreements and Procedures*, Order No. 2003, 68 Fed. Reg. 69,599, FERC Stats. & Regs. ¶ 31,146 at P 303 (2003) (Commission recognized that an interconnection agreement fixes the performance, operational, and financial obligations of the parties even after the generating facility begins commercial operations and that, since these obligations and responsibilities are of indefinite duration, existing as long as the facility is connected to the transmission provider’s transmission system, it is appropriate for the term of the

(continued...)

determines that the term should be anything less than thirty years, an evergreen provision should be included in the agreement to provide EKPC with adequate notice in the event of termination. EKPC argues that TVA should not be allowed to terminate the agreement without Commission approval.<sup>25</sup>

24. Finally, as discussed in more detail below, EKPC challenges a number of specific points in TVA's proposed Interconnection Agreement, and identifies instances of incorrect internal referencing and paragraph numbering, such as a reference in section BA-12.1 to a section BA-12.2 which does not exist, and the existence of a section BA-12.4(b) when there is no section BA-12.4(a). EKPC requests confirmation that these are typographical errors and not substantive omissions.

25. On November 22, 2005, TVA filed an answer to EKPC's comments on its proposed Interconnection Agreement and revised System Impact Study (November 22 Answer).

26. Finally, on November 30, 2005, EKPC filed a motion requesting the Commission to reject TVA's November 22 Answer (November 30 Motion).

## **II. Notice of Filings and Responsive Pleadings**

27. Notice of EKPC's revised System Impact Study filed on August 18, 2005, as amended on August 19, 2005, was published in the *Federal Register*, 70 Fed. Reg. 52,371 (2005), with protests and comments due on September 16, 2005. None was filed.

28. Notice of TVA's revised System Impact Study filed on September 7, 2005 was published in the *Federal Register*, 70 Fed. Reg. 55,365 (2005) with protests and comments due on October 10, 2005. EKPC filed comments on TVA's revised System Impact Study on October 11, 2005.

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interconnection agreement to be indefinite as well.).

<sup>25</sup> *Id.*, Large Generator Interconnection Agreement, section 2.3 (no termination shall become effective until the parties have complied with all applicable laws and regulations applicable to the termination, including Commission acceptance of a filed notice of the termination.).

29. Notice of TVA's proposed Interconnection Agreement filed on September 20, 2005 was published in the *Federal Register*, 70 Fed. Reg. 58,397 (2005) with protests and comments due on October 11, 2005. EKPC filed comments on TVA's proposed Interconnection Agreement on October 7, 2005.

### **III. Commission Decision**

#### **A. Procedural Matters**

30. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2)(2005), prohibits an answer to a protest and/or answer unless otherwise ordered by the decisional authority. We are not persuaded to accept TVA's November 22 Answer and will, therefore, grant EKPC's motion to reject TVA's answer.

#### **B. Interconnection Request**

31. As an initial matter, we clarify several points regarding the general arguments already made for ordering the requested interconnection. TVA has consistently maintained that the loop flows created as a result of the proposed interconnection implicate transmission service properly considered under section 211 of the FPA and which, due to restrictions in section 212(j) of the FPA, the Commission is prohibited from ordering. TVA has argued that the loop flows are not inadvertent, but rather the deliberate and direct result of EKPC's failure to design and construct an adequate transmission facility to transport its power to Warren.

32. In considering these arguments, we note first that EKPC claims to have planned and constructed facilities which are independently capable of delivering power to Warren, with the exception that EKPC requires certain coordination services from TVA. Were it possible to support the EKPC-Warren system voltages and avoid the need for backup power without obtaining these coordination services from TVA, EKPC's system would seem to be self-sufficient. EKPC would then have no need to litigate this issue with TVA, and would simply operate independently from TVA, delivering power directly to Warren. TVA has offered no convincing evidence or arguments to dispute these claims by EKPC. Instead, TVA argues that EKPC's facilities are insufficient to deliver power to Warren, not because EKPC's transmission path lacks sufficient capacity, but because loop flows are generated when EKPC connects to the TVA system to receive coordination services.

33. We also note that the coordination services requested by EKPC are services which TVA has no statutory basis for objecting to provide under either section 210 or 212. As discussed in the August 3 Order, section 212(j) makes no prohibition upon the

Commission ordering such coordination services to be provided by TVA, and section 210(a)(1) explicitly authorizes the Commission to order such services. To prevent EKPC from obtaining these services simply because doing so results in loop flows on TVA's system would appear to be unjustified. Loop flows have been, and can be, coordinated. Proper compensation can be ordered when a demonstrated burden exists. Furthermore, we do not agree with TVA that these flows are "deliberate," at least not in the sense relevant to this proceeding. For, although the loop flows are *foreseeable*, they are not *desired as an end in themselves*, but only as an unavoidable consequence of TVA's provision of coordination services to EKPC and Warren. If a reasonable alternative to the proposed interconnection existed, it would certainly have been explored; however, the only alternative in this case appears to be for EKPC to construct duplicative facilities needed to support voltages and provide backup power, even when such construction would seem to be inefficient and ignore the ability of EKPC to obtain such services under section 210(a)(1). We find this alternative to be unreasonable.

### C. System Impact Studies

34. Although the parties have apparently failed to coordinate in order to comply with the Commission's August 3 Order, the revised System Impact Studies are adequate to support the directed interconnection. As discussed in greater detail below, we agree with EKPC that the follow-up studies proposed by TVA appear to be premised upon the treatment of loop flows as firm point-to-point transmission service. Accordingly, we will reject the proposed requirements and charges for specific follow-up studies, which appear to be based on the treatment of the loop flow as firm point-to-point transmission service. TVA has not shown that additional follow-up studies are typically performed specifically for loop flows, that other systems are assessed charges for such studies only because of loop flows, or that this proceeding involves loop flow planning costs which are above and beyond those encountered in other instances of loop flow, and therefore warrant special treatment. Without further justification by TVA for performing follow-up engineering studies for EKPC beyond those TVA already performs in the course of normal system management, we fail to see why the mere existence of these loop flows would increase such planning costs.

35. However, we find that EKPC is responsible for all costs associated with the System Impact Studies and facilities studies completed to date associated with this interconnection request, and that will be completed as a result of this Final Order, including the costs of the System Impact Study with the disputed base case. We note that EKPC changed its proposed interconnection configuration several times, thus requiring that additional system modeling be performed regardless of the base case employed. Also, we anticipate that once the general system modeling is completed, the marginal costs associated with changing the base case should be relatively low. We believe that

TVA incurred the costs for the System Impact Studies associated with EKPC's interconnection request in good faith while responding to EKPC's changing interconnection request, and that EKPC should therefore be responsible for those costs.

#### **D. TVA's Proposed Interconnection Agreement**

36. Our review of the proposed Interconnection Agreement indicates that, subject to the modifications directed below, the agreement contains terms and conditions appropriate for the interconnection of TVA's transmission system with EKPC's system.

##### **1. Transmission Service Provisions**

37. TVA's proposed Interconnection Agreement incorporates its Transmission Service Guidelines for firm point-to-point transmission service and establishes that "Scheduling, System Control, and Dispatch Service" and "Reactive Supply and Voltage Control Service" will be provided under Schedules 1 and 2 of those guidelines. EKPC challenges TVA's application of firm point-to-point transmission service charges, including charges for ancillary services, to the loop flow that may result from these interconnections. According to EKPC, TVA is treating loop flow as a transaction requiring "delivery service" and for which TVA proposes to charge "the equivalent of long-term Firm Point-To-Point Transmission Service under the TVA Transmission Service Guidelines."<sup>26</sup> EKPC argues that TVA's proposed Interconnection Agreement inappropriately requires EKPC to reserve and pay for firm point-to-point transmission service, including ancillary services, for the loop flow in the same manner that a transmission provider would charge for a reserved and scheduled transaction. EKPC requests the Commission reject TVA's compensation scheme for loop flow compensation (including, but not limited to, the provisions governing "Curtailed Deliveries" in BA-12 and all of Articles BA-13 and BA-1), and strike from the Proposed Agreement any and all references to "Delivery Service" or "FERC-Authorized Flows," and all provisions related to those terms.

38. We agree with EKPC's position on this issue. TVA has consistently argued in this proceeding that EKPC's interconnection request is actually a transmission request. TVA is treating EKPC's interconnection request as a transmission-related service which directly contradicts the Commission's prior rejection of this position. As stated in the Proposed Order and the August 3 Order, our decision directing the proposed interconnection in the Proposed Order is based solely on section 210 of the FPA.<sup>27</sup> The

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<sup>26</sup> See TVA's Compliance Filing at BA-2.

<sup>27</sup> See 112 FERC ¶ 61,160 at P 23.

Commission specifically stated that it is not acting under section 211, and that it is not directing TVA to provide EKPC with transmission in this case, but is rather requiring TVA to provide only interconnection.<sup>28</sup> To the extent there are any rates, terms or conditions associated with the interconnection or with coordination services, such as voltage outage and back-up power associated with the interconnection, TVA should establish rates, terms and conditions in the context of the Interconnection Agreement and not incorporate all of the rates, terms and conditions in its Transmission Service Guidelines in lieu of using standard Interconnection Agreement provisions.

39. We will, therefore, direct TVA to remove all provisions in the Interconnection Agreement that treat loop flow as firm point-to-point transmission service as well as the requirement for an annual System Impact Study which is only required in the context of transmission service and not in the context of interconnections. Within 30 days of the date of this order, TVA must file a revised Interconnection Agreement consistent with this modification as well as the other modifications directed below.

## **2. Loop Flow Compensation**

40. We agree with EKPC that TVA has not at this time demonstrated any burden under the *AEP I* precedent which would justify compensation for loop flows, but that such compensation can be ordered when and if TVA demonstrates that such a burden exists. TVA has provided no specific evidence that the loop flow jeopardizes the reliability of TVA's system or diminishes TVA's ability to utilize its system in the most economical manner.<sup>29</sup> Accordingly, TVA's proposed loop flow compensation is rejected without prejudice to TVA demonstrating that such a burden exists and proposing compensation that specifically mitigates the burden on its system caused by the loop flows.

41. TVA stated that an additional "facilities study" and "project scoping workshop" must be performed initially, before specific costs and required interconnection facilities can be identified. We note that the August 3 Order directed TVA to provide an Interconnection Agreement with rates, terms and conditions for the proposed interconnection, and TVA has responded with filings that neither comply with Commission direction, nor provide any objections to the Commission's timeframes or an

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<sup>28</sup> *Id.* at P 23 and n.22.

<sup>29</sup> *See AEP I* at 49 FERC at 62,381.

explanation why TVA could not comply within those timeframes.<sup>30</sup> We believe that any studies or analyses necessary to identify what interconnection facilities or network upgrades are necessary should have been completed by now.<sup>31</sup> To the extent that any additional analysis or cost estimates are required, we direct TVA to complete such activities and submit the completed Facilities Matrix and estimated project costs to the Commission, as part of the compliance filing directed in this order below. If any conclusions cannot be determined within the time established, specific reasons should be given and a specific timeline as to when those conclusions will be available should be provided by TVA, with concurring or dissenting comments to be filed by EKPC.

42. We also note that it appears that EKPC did not provide TVA with all of the technical details needed to complete the engineering studies of its proposal. While we believe that it is the responsibility of TVA to ask EKPC or the Commission for any details it feels it lacks in order to respond to a Commission order, we certainly believe that it is EKPC's responsibility in the first place to ensure that all of the necessary information has been provided to TVA. We therefore direct EKPC to provide to TVA, within seven days of the date of this order, any information that has been identified by TVA as needed to conclude the engineering studies. If at any time following the submission of information by EKPC, TVA determines that it does not have sufficient information to comply with this Final Order, TVA should request such information from EKPC within three days of such a determination, and file a copy of such request with the Commission.

### **3. Term and Termination**

43. Article BA-3, Term and Termination, provides that the Interconnection Agreement shall be effective for ten years, and that at the end of the initial ten-year term it shall continue in effect from year to year unless terminated. TVA characterizes this provision

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<sup>30</sup> Similarly, we also note TVA's compliance filing in response to the Commission's Proposed Order did not include an Interconnection Agreement with terms and conditions, as directed by the Commission. Failure to comply with the Commission's directive necessitated a further Commission order directing TVA to file an Interconnection Agreement further delaying prompt resolution of this proceeding. We expect TVA to comply with all current and future Commission directives.

<sup>31</sup> Certainly details may change slightly as we move forward, but it seems unreasonable, particularly in absence of any argument to the contrary, that the initial interconnection design, with cost estimates, is not yet completed, given the Commission's prior orders.

as “essentially an evergreen contract that will continue in effect until terminated in accordance with its terms.”<sup>32</sup> Under section BA-3.3, EKPC “may at any time and for any reason terminate this Agreement upon sixty (60) Days’ written notice to TVA.” TVA may terminate, also on 60 days’ notice, only if EKPC fails to fund, in accordance with section BA-6.1, the necessary modifications to the TVA transmission system identified in any follow-up facilities studies required to enable TVA to deliver energy to Warren for EKPC (section BA-3.2), or if EKPC: (1) becomes bankrupt or insolvent; (2) fails to pay an undisputed charge; or (3) defaults on a material term (section BA-3.4).

44. EKPC argues that the term should be 30 years, to run concurrently with EKPC’s agreement with Warren. For purposes of this interconnection service, we do not see a material difference between an evergreen contract, which EKPC can terminate at the end of 30 years, and a contract with a fixed 30-year term, and will allow this provision of the ten year term, with automatic extension.

45. EKPC also reiterates its previous objection to section BA-6.1, which it argues should be stricken from the agreement, and objects to allowing for the termination of the agreement in the event that EKPC refuses to fund modifications required by these studies. We agree. As discussed above, the rates, terms and conditions related to firm point-to-point transmission service are to be removed from this Interconnection Agreement, and as such, the transmission service studies referenced in section BA-6.1 should be stricken. Accordingly, we will direct TVA to eliminate the reference to termination for failure to pay in accordance with section BA-6.1. To the extent that EKPC refuses to provide compensation as determined by the Commission for any demonstrated burden resulting from the loop flow on TVA’s system, then TVA could make a filing with the Commission to terminate for failure to pay an undisputed charge as provided in section BA-3.4.

#### **4. Miscellaneous Provisions**

46. Article BA-7, Impacts on Neighboring Systems, recognizes that the provision of Delivery Service and Coordination Services associated with the FERC-Authorized Flows may have an impact on neighboring electric power systems, provides that TVA may share System Impact Study results showing these potential impacts to neighboring systems, and requires EKPC to enter into any arrangements required by the neighboring systems to evaluate those impacts. EKPC requests that Article BA-7 be stricken from the proposed Interconnection Agreement, stating that:

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<sup>32</sup> See TVA September 7 Filing at 5.

EKPC is not opposed to working with these neighboring systems in the event an adverse impact is discovered. However, it is improper for the proposed Interconnection Agreement to require EKPC to enter into arrangements with these “Potentially Impacted Systems” who are not, in fact, parties to the agreement. Any neighboring utility that believes it has something to discuss with EKPC is always welcome to do so, and need not have TVA gratuitously serve as its self-appointed agent.<sup>33</sup>

47. EKPC’s objection to Article BA-7 fails to acknowledge that affected systems may not be able to approach EKPC with concerns if such affected systems are not aware of the study results showing how they are impacted. Furthermore, the provision that requires EKPC to enter into “arrangements” with the affected systems does not appear to require any specific agreement between EKPC and the affected systems, other than that EKPC coordinate with such systems in order to resolve identified problems. The provisions included in Article BA-7 appear to be appropriate, and EKPC has not demonstrated why such a requirement is inappropriate. As such, we deny EKPC’s request to strike Article BA-7.

48. Section BA-11.5, Coordination Voltage Levels and Reactive Power Flows, requires the parties to coordinate with respect to voltage levels and reactive power flows. EKPC generally agrees with section BA-11.5, but argues that the obligation should be reciprocal. If, as a result of the interconnections, TVA places a burden on EKPC’s system, EKPC argues that TVA should be obligated to take any action to remove such burden. We agree. TVA is directed to modify the Interconnection Agreement to make coordination of voltage levels and reactive power flows reciprocal in the compliance filing directed below.

49. In addition, EKPC argues that section BA-12.6, Fluctuations or Disturbances on the TVA Transmission System Facilities is duplicative of section BA-11.5 and, therefore, should be removed. We disagree. Section BA-11.5 discusses general requirements for coordination of voltage levels and reactive power flows, while section BA-12.6 discusses technical details not included in section BA-11.5. As such, we deny EKPC’s request to strike section BA-12.6.

50. Under Article BA-11, Preoperational Period, the parties are required to establish an Operating Committee to coordinate matters during that period. EKPC notes that, although the proposed Interconnection Agreement does not expressly address the existence of the Operating Committee at the end of that period, it assumes that the

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<sup>33</sup> See EKPC’s October 7 Comments at 13.

Operating Committee will continue to exist for the term of the proposed Interconnection Agreement. EKPC, therefore, requests that the Interconnection Agreement include express language confirming this assumption. In addition, EKPC proposes that the Operating Committee should be more involved in some of the decision-making processes currently left to the sole discretion of TVA, especially in those instances where EKPC is required to bear the costs resulting from those decisions. EKPC, therefore, requests that the Operating Committee, rather than just TVA, be responsible for making the determinations required in sections FP-1.6, Changes or Additions to TVA Interconnection Facilities, FP-2.3, Standards and Review, FP-2.4, Changes to EKPC Interconnection Facilities, and FP-2.5, Operation and Maintenance.

51. We agree that the Interconnection Agreement should be revised to clarify that the Operating Committee will continue to exist for its entire term, and direct TVA to incorporate such a clarification. However, we disagree that the Operating Committee should be making the determinations required in sections FP-1.6, FP-2.3, FP-2.4 and FP-2.5. Such determinations should initially be unilaterally proposed and made by TVA, ideally after cooperation and coordination with EKPC. If EKPC does not agree with such determinations and agreement cannot be reached, EKPC or TVA may bring such concerns to the Commission at that time.

52. EKPC challenges section FA-8, Billing and Payments for Initial Installation Work, and section FA-9, Billing and Payments for Operation and Maintenance (O&M). EKPC notes that section FA-9 requires EKPC to reimburse TVA for actual costs incurred for O&M, but fails to explain what this O&M work entails. EKPC assumes that this section would inappropriately require it to reimburse TVA for O&M expenses related to facilities that have already been constructed and that are integrated into the TVA system. EKPC requests further explanation of this provision before it evaluates the propriety of this section. EKPC also points out that sections FA-8 and FA-9 obligate EKPC to reimburse TVA for the actual costs and applicable overheads for Initial Installation Work and O&M Work. According to EKPC, applicable overhead is not defined and it is unclear just what these costs would entail. EKPC proposes that applicable overheads be set as a fixed percentage of actual costs for any provision of the agreement requiring EKPC to pay such overheads.

53. We agree with EKPC that TVA's proposals for O&M charges and overheads are not of sufficient specificity to allow the Commission to determine if they are reasonable. As such, TVA is directed to file the O&M charges with the Commission when it seeks to recover such costs. At that time, TVA must also support and provide the derivation of any overhead charges that it proposes to recover from EKPC.

54. Section BA-12.1, Disconnection of EKPC Interconnection Facilities or Curtailment of Deliveries, paragraph (a)(iv), allows either party to disconnect EKPC's interconnection facilities as permitted under any other express provisions in the agreement that provides for any such disconnection or curtailment. EKPC objects to the general nature of this provision, and argues that disconnection should be limited to the narrow circumstances identified in paragraphs (a)(i)-(iii). We disagree. If EKPC believes that any other provisions in the Interconnection Agreement contemplated by paragraph (a)(iv) incorrectly allow TVA to disconnect the EKPC Interconnection Facilities, it should specifically object to such provisions.

55. Section GP-8.1, Agreement Security, requires EKPC to provide TVA with an unconditional and irrevocable standby letter of credit in the event TVA determines, in its sole discretion, that EKPC has experienced a material change in its financial condition. EKPC argues that acquiring an unconditional and irrevocable letter of credit is an economic burden that it should not be required to undertake upon TVA's sole discretion. Rather, EKPC proposes that Article GP-8 must include more specific standards for such security measures, and proposes that the phrase "material change in its financial condition" be defined to include the following three events: (1) EKPC fails to make a payment after notice of default and the opportunity to cure have run; (2) EKPC files for bankruptcy; or (3) EKPC experiences a material downgrade in its credit-rating.

56. We believe this provision to be appropriate. TVA's ability to incur debt is limited by section 15d(a) of the TVA Act,<sup>34</sup> so its security requirements are higher than those of a public utility. Moreover, EKPC has not alleged that their security provision is anything other than routine for TVA.

57. EKPC also challenges section GP-9.14, Future Changes, as unnecessarily complicated. According to EKPC, under section GP-9.14(a), it appears that either party may seek unilateral modification of the Interconnection Agreement, first through dispute resolution procedures and then by appeal to the courts or the applicable regulatory authority. However, section GP-9.14(b) precludes any unilateral modification unless there has been a Change in Legal Requirements. EKPC argues that, if the parties agree to retain the right to unilaterally modify this agreement, any dispute over such modifications should be addressed by the Commission. EKPC requests the Commission to allow the parties to discuss the standard of review under which such unilateral modifications would be judged. EKPC states that, without yet knowing what the other terms of the agreement will be, it cannot at this time develop an informed opinion on whether the agreement

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<sup>34</sup> 16 U.S.C. § 831n-4 (2000).

should be fixed and thus subject to change only upon mutual agreement, or whether each party should preserve the right to unilaterally propose and file with the Commission changes to the agreement.

58. We agree that this section is unclear. TVA should modify this provision to provide that requests for unilateral modification can be made at any time, and must be approved by the Commission.

59. EKPC points out that, as a rural electric cooperative with Rural Utilities Service (RUS) debt, it is required to provide RUS with information that may be considered confidential under section GP-5.2, Confidentiality. EKPC, therefore, requests that section GP-5.2 contain an express waiver of the confidentiality requirements of the Interconnection Agreement, allowing it to disclose to RUS any information required by applicable laws and regulation. EKPC also points out that all contracts to which EKPC is a party are assignable to RUS. EKPC, therefore, requests that section GP-2.1, Assignment, be amended to provide for such assignment.

60. We agree, and will direct TVA to add to section GP-5.2 a provision expressly providing a waiver that will allow EKPC to disclose to another governmental entity, in this case, RUS, any information required by that governmental entity's applicable laws and regulations. TVA must also include a provision in section GP-2.1 that will allow EKPC to assign this contract to RUS.

61. Finally, EKPC identifies instances of incorrect internal references and paragraph numbering such as a reference in section BA-12.1 to a section BA-12.2 which does not exist, and the existence of a section BA-12.4(b) but there is no section BA-12.4(a). EKPC requests confirmation that these are typographical errors and not substantive omissions. We will also direct TVA to correct these typographical errors in the compliance filing directed below, within 30 days of the date of this order.

#### **IV. Final Order**

62. Before a Final Order may be issued, section 210(c) requires that the Commission find that an interconnection order is in the public interest and that it: (1) encourages conservation of energy or capital; (2) optimizes efficiency of facilities and resources; or (3) improves the reliability of any electric utility system to which the order applies. As the Commission explained in the Proposed Order and in the August 3 Order, the requested interconnections would enable EKPC to enlarge its membership and to

optimize the use of system resources.<sup>35</sup> The requested interconnections would encourage the conservation of energy and capital by providing Warren with access to more economical sources of power. As a result of the interconnection, Warren and its customers would be able to obtain the coordination services necessary for it to obtain transmission service over EKPC's proposed transmission facilities, and to purchase power at lower rates than they pay TVA. An order directing TVA to interconnect with EKPC would thus optimize the use of existing facilities by allowing increased competition. Therefore, we also find that an order directing interconnection here would be in the public interest. Accordingly, and consistent with our findings in the Proposed Order and the August 3 Order, we find that this Final Order satisfies the requirements of section 210(c).

63. Section 210 also requires that an interconnection order directed by the Commission meet the requirements of section 212 of the FPA. As discussed in the Proposed Order, the August 30 Order, and above, we find that the requested interconnection is consistent with the requirements of section 212. Accordingly, because we find that EKPC has met the standards for an interconnection order under sections 210 and 212 of the FPA, TVA is hereby directed to interconnect with EKPC under the terms and conditions of the proposed Interconnection Agreement, as modified, to be effective on the date of issuance of this order.

The Commission orders:

(A) TVA's November 22, 2005, Answer is hereby rejected and EKPC's November 30, 2005, Motion to reject that answer is hereby granted.

(B) TVA is hereby directed to interconnect with EKPC as directed in the body of this order.

(C) EKPC is directed to provide to TVA, within three (3) days of the date of this order, any information that is needed to conclude the further engineering studies or analyses necessary to establish the requested interconnections.

(D) To the extent further engineering studies or analyses are necessary, TVA is hereby directed to complete such studies or analyses necessary to identify what interconnection facilities or network upgrades associated with EKPC's requested

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<sup>35</sup> The Commission incorporates, herein, the findings detailing the justification for the section 210 determination contained in the Proposed Order and the August 3 Order.

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interconnections and to file these studies or analyses with the Commission within thirty (30) days of the date of this order as part of the compliance filing directed in Ordering Paragraph E, below.

(E) TVA is hereby directed to file a modified Interconnection Agreement, as directed in the body of this order, within thirty (30) days of the date of this order.

(F) The Interconnection Agreement, subject to the modifications discussed in the body of this order, is hereby accepted for filing to be effective on the date of issuance of this order, without suspension or hearing.

By the Commission.

( S E A L )

Magalie R. Salas,  
Secretary.