

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

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

Southwest Power Pool, Inc.

Docket No. ER05-1118-000

ORDER ON PROPOSED TARIFF REVISIONS

(Issued September 19, 2005)

1. In this order, the Commission addresses proposed tariff revisions submitted by Southwest Power Pool, Inc. (SPP) intended to implement a real-time energy imbalance market (imbalance market) and establish a market monitoring and market power mitigation plan. As discussed below, while SPP has made progress in developing its imbalance market and market monitoring and mitigation plans, its proposed tariff provisions require significant modification or elaboration before we can determine whether its imbalance market is designed and monitored properly and allows for stable market operations. Accordingly, we will reject SPP's filing and provide guidance on several issues we consider critical to the success and monitoring of SPP's imbalance market.

**Background**

2. SPP has been authorized as a regional transmission organization (RTO) since October 1, 2004,<sup>1</sup> and submits the proposed tariff revisions under section 205 of the Federal Power Act (FPA),<sup>2</sup> pursuant to Commission orders addressing SPP's RTO application. The Commission accepted SPP's commitment to develop an energy imbalance market, including phased implementation of a real-time, offer-based energy market that will be used to calculate the price of imbalance energy.<sup>3</sup> The Commission also required SPP to provide a market monitoring plan, including market power mitigation measures that address market power problems in the spot market and a clear set of rules governing market participation conduct, with the consequences for violations

---

<sup>1</sup> See *Southwest Power Pool, Inc.*, 109 FERC ¶ 61,009 (2004), *order on reh'g*, 110 FERC ¶ 61,137 (2005).

<sup>2</sup> 16 U.S.C. § 824d (2000).

<sup>3</sup> *Southwest Power Pool, Inc.*, 106 FERC ¶ 61,110 at P 134, *order on reh'g*, 109 FERC ¶ 61,010 (2004).

clearly laid out.<sup>4</sup> The Commission further stated that the market monitoring plan must include the process that the independent market monitor (IMM) would use if the IMM determines that the markets are not resulting in just and reasonable prices or providing appropriate incentives for investment in needed infrastructure.<sup>5</sup> The Commission also required that the market monitoring plan provide for periodic reports prepared by the IMM.<sup>6</sup>

3. In this filing, SPP submits proposed Attachment AE to its tariff, which is intended to support a real-time, offer-based energy market that will be used to calculate imbalance prices, including provisions allowing SPP to order the dispatch of generating units. As further detailed below, Attachment AE establishes the real-time energy market, including the procedures for offers from generators, requires certain generators to follow SPP dispatch instructions, and sets forth the calculation of prices that will apply to energy imbalances. Attachment AE also sets forth: market participant and transmission provider obligations; scheduling procedures regarding development of the next day operating plan; hourly resource plans and new or revised energy schedules; energy imbalance service settlement activities; billing procedures; and confidentiality rules.

4. SPP further submits, as proposed Attachment AF, its market power mitigation plan, and, as proposed Attachment AG, its market monitoring plan. As further detailed below, these attachments are intended to provide a clear set of rules governing market participant conduct, the potential consequences if rules are violated, and the areas on which SPP's Market Monitor will report.<sup>7</sup>

5. SPP states that all of the proposed tariff revisions were approved by its Regional Transmission Working Group, Markets Operations Policy Committee, and Board of Directors.

---

<sup>4</sup> *Id.* at P 173. Recognizing that SPP planned to implement its energy imbalance market in three phases, the Commission directed SPP to file its market monitoring plan no later than 60 days prior to implementing Phase 3 of its energy imbalance market.

<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> SPP states that the Market Monitor consists of an internal Market Monitoring Unit (MMU) and an IMM. The functions and reporting requirements of the IMM are specified in the IMM Service Agreement that is currently pending before the Commission in Docket No. RT04-1-010, *et al.*

### **Notice of the Filing and Responsive Pleadings**

6. Notice of the filing was published in the *Federal Register*,<sup>8</sup> with comments, protests, and interventions due on or before July 16, 2005. The Louisiana Public Service Commission filed a notice of intervention. Timely interventions were filed by: the Oklahoma Gas and Electric Company; Reliant Energy, Inc.; Western Farmers Electric Cooperative; and American Electric Power Service Corporation. Timely interventions and protests were filed by: the Missouri Joint Municipal Electric Utility Commission, Oklahoma Municipal Power Authority, and West Texas Municipal Power Agency (collectively, OMPA); East Texas Electric Cooperative, Inc., Northeast Texas Electric Cooperative, Inc., and Tex-La Electric Cooperative of Texas, Inc. (collectively, East Texas Cooperatives); Golden Spread Electric Cooperative, Inc. (Golden Spread); Kansas City Power and Light Company (KCPL); Lafayette Utilities System (Lafayette); Midwest Energy, Inc. (Midwest Energy); the Midwest Independent Transmission System Operator, Inc. (Midwest ISO); the Missouri Joint Municipal Electric Utility Commission, Oklahoma Municipal Power Authority, and West Texas Municipal Power Agency (collectively, TDU Intervenors); Southwest Industrial Customer Coalition (Southwest Industrial); Westar Energy, Inc. and Kansas Gas and Electric Company (collectively, Westar); Empire District Electric Company; and Xcel Energy Services, Inc. on behalf of Southwestern Public Service Company (collectively, Xcel).

7. SPP and its independent market monitor, Boston Pacific Company, Inc. (Boston Pacific), each filed an answer to the protests, which generally reiterate the arguments set forth in SPP's filing. Golden Spread also filed an answer.

8. Lafayette, TDU Intervenors and Xcel each filed a reply to SPP's and Boston Pacific's answers. SPP filed an answer to TDU Intervenors' answer.

### **Procedural Matters**

9. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2005), the notice of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

10. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2005), prohibits answers to protests and replies to answers unless otherwise ordered by the decisional authority. We are not persuaded to accept SPP's, Boston Pacific's, and Golden Spread's answers or Lafayette's, TDU Intervenors' and Xcel's replies, and, therefore, we will reject them.

---

<sup>8</sup> 70 Fed. Reg. 36,931 (2005).

## **Preliminary Discussion**

11. SPP's filing under section 205 of the FPA provides the Commission and parties with an opportunity for critical review of the proposed energy markets tariff. Nevertheless, we find that SPP's filing is inadequate in several respects and that key elements must be addressed in order to help ensure successful implementation and monitoring of SPP's imbalance market.<sup>9</sup> Until these inadequacies are remedied, we cannot find SPP's proposal to be just and reasonable. Accordingly, we will reject SPP's filing and provide direction on issues critical to the success of SPP's imbalance market. As in Docket No. ER03-1118-000, in which the Commission provided guidance to the Midwest ISO regarding issues critical to development and implementation of the Midwest ISO's energy markets tariff,<sup>10</sup> our intention here is to provide SPP with the guidance it needs to fully develop its proposals so that it may submit revised, comprehensive energy imbalance and market monitoring and mitigation plans. We further expect that, like the Midwest ISO, SPP will follow a path to successful implementation of its markets. To that end, we will provide guidance below on issues concerning: (1) reliable and stable market operations; (2) market-based rates; and (3) mitigation and monitoring provisions. SPP's filing and protests pertaining to these issues are discussed below.

## **Stable Market Operations**

### **SPP's Proposal**

12. SPP seeks to operate a real-time energy market to provide energy imbalance service and to allow SPP to dispatch resources bid into the market. SPP asserts that the imbalance market meets the first phase of SPP's congestion management implementation plan as accepted by the Commission. SPP's implementation of real-time balancing will be followed by evaluation of a mechanism for congestion management based on financial transmission rights (FTRs) and implementation of a regional ancillary services mechanism.

13. SPP proposes that all imbalances be settled in the imbalance market; self-provision of imbalances will no longer be allowed. SPP further proposes to calculate locational imbalance prices (LIPs) in the imbalance market at each meter settlement

---

<sup>9</sup> Indeed, SPP states that further tariff revisions might be required but that it submits its filing well in advance of market start-up in order to allow time for Commission resolution of important issues and testing and implementation of systems intended to carry out Commission-approved tariff provisions.

<sup>10</sup> *Midwest Independent Transmission System Operator, Inc.*, 105 FERC ¶ 61,145, *order dismissing reh'g*, 105 FERC ¶ 61,272 (2003).

location (node) using a security-constrained least cost marginal pricing method.<sup>11</sup> Participation as a seller into the imbalance market is voluntary. Dispatchable resources, *i.e.*, those resources that bid into the SPP imbalance market, must meet minimum operating criteria in order to be eligible to set the LIP. Self-dispatched resources that are not controlled by SPP are not eligible to set prices in the imbalance market. Dispatchable resources would be obligated to follow SPP's dispatch instructions during normal system conditions, and all resources in the SPP area would be obligated to follow its dispatch instructions during system emergency conditions. SPP neither proposes a resource adequacy plan, nor seeks to impose an obligation for resources to bid into the imbalance market.

14. SPP proposes that each market participant submit, prior to the operating day, a resource plan and ancillary services plan based on SPP's forecast of load. A resource plan must include the hourly maximum and minimum limits and ramp rate limits of the market participant's generation resources, the forecasted hourly output of each resource, and the resource status for SPP dispatch for the next seven days. Energy schedules submitted in the day-ahead timeframe must specify hourly energy flows from sources to sinks. Deviations from these schedules are settled based on real-time imbalance prices. Energy schedules must be balanced so that the scheduled injections equal scheduled withdrawals plus any transmission losses. In the hour-ahead period, the proposed imbalance market provisions allow for adjustments to resource plans and energy schedules up to 30 minutes prior to the operating hour. SPP proposes to evaluate the resource plans submitted in the day-ahead timeframe using a contingency analysis. If SPP finds that a market participant's resource plan cannot be implemented reliably, SPP proposes to notify the market participant and have the market participant modify and resubmit its resource plan.

15. SPP proposes to calculate LIPs and to dispatch resources on a 15-minute dispatch interval using a single clearing-price auction. However, SPP states that the length of the dispatch interval is likely to change in the future due to the predicted failure of a 15-minute dispatch interval to resolve reliability issues in a timely way.<sup>12</sup> SPP further proposes a system of nodal pricing that allows for LIPs calculated at each meter settlement location for generation resources and for aggregations of meter settlement locations into load zones, called Settlement Locations. Imbalances representing the difference between scheduled generation output and actual generation output would be settled at LIP at each generator node; imbalances representing the difference between scheduled load and actual load would be settled at an aggregate LIP for each Settlement Location. In theory, a market participant that perfectly schedules its load and self-dispatches its generation (or a market participant that offers into the market and is

---

<sup>11</sup> Transmittal Letter at 5.

<sup>12</sup> See Exhibit IV.

dispatched by SPP at its scheduled level) will not pay imbalance LIPs. As part of its dispatch protocols, SPP proposes to adjust the net scheduled interchange for each control area to account for its dispatch instructions and communicate this adjusted net scheduled interchange to the control areas for implementation.

16. SPP states that market participants will be free to use the proposed market for more than just their imbalance energy needs.<sup>13</sup> SPP states that a market participant could turn to the imbalance market for all of its energy by bidding all of its generation into the imbalance market. SPP outlines two options for use of the proposed market by load-serving entities: (1) market participants who choose to self-dispatch their generation resources are necessarily limited to purchasing only imbalance energy; and (2) market participants who choose to offer their resources into the market can use the energy imbalance market as a full energy market. For the latter participants, SPP will ignore the market participant's schedule and determine the least cost economic dispatch to serve the market participant's load, potentially serving all of the load with less expensive resources than those owned or controlled by the load-serving entity.

17. SPP's proposed tariff does not contain an express requirement that each market participant provide sufficient energy (through a mix of self-dispatched resources and energy bids) for SPP to serve the market participant's obligations at all times. SPP also does not require that energy schedules meet a market participant's full load requirements, but SPP does propose a penalty for deviations from a market participant's schedule by more than four percent in any given hour. SPP states that such charges will apply only when congestion on the SPP system causes hourly locational prices to diverge. SPP proposes to assess a charge equal to the difference between locational prices at the load and resource location multiplied by the imbalance between the scheduled load and the actual load. SPP states that these provisions for over- and under-scheduling charges are consistent with charges for uninstructed deviations in other RTO markets in that they "provide additional incentives to keep actual energy flows close to scheduling parameters."<sup>14</sup>

### **Protests**

18. Xcel expresses concern that SPP is moving forward to implement imbalance markets that do not incorporate "full scale" financial energy markets with FTRs, unit commitment by the RTO, and security-constrained economic dispatch with locational marginal pricing to resolve transmission congestion. Xcel also argues that SPP should adopt marginal loss provisions to ensure the most efficient regional least-cost dispatch.

---

<sup>13</sup> Roach Testimony at 28.

<sup>14</sup> Transmittal Letter at 7 (citing *Midwest Independent Transmission System Operator, Inc.*, 111 FERC ¶ 61,053 at P 197 (2005)).

Xcel states that SPP is pursuing an approach that is different from the approach followed by all other RTOs and thereby risks market failure and increased implementation costs. Xcel requests that the Commission reject the approach adopted by SPP, or at a minimum, require SPP to provide some analysis to show that its proposal can be successfully implemented. Because of concerns about over-recovery from retail customers, Southwest Industrial requests that the Commission reject SPP's proposed use of single price auctions in the imbalance market.

19. Several protestors express concerns about whether SPP will be able to reliably operate stable imbalance markets. Xcel, Westar and TDU Intervenors state that SPP has not adequately explained the purpose and function of the resource plans. Westar requests that the Commission require SPP to clarify the operational relationship between resource plans, schedules required of market participants and resource offers. Xcel argues that, since SPP does not intend to perform a unit commitment process, submission of a resource plan seems unnecessary. Xcel states that at a minimum SPP must clarify the criteria it will use to evaluate resource plans for feasibility and propose a clear process for resolving conflicts between resource plans. Further Xcel argues these provisions are inconsistent with proposed provisions allowing for resubmission of resource plans 30 minutes prior to the operating hour in that the resubmitted plans do not require an evaluation by SPP for feasibility.

20. Westar argues that SPP's proposal cannot be reliably implemented, arguing that SPP should develop: (1) plans for a 5-minute dispatch cycle; (2) uninstructed deviation penalty provisions; (3) reserve sharing treatment in the context of the new market; (4) scheduling rules for resources not dispatched by SPP; and (5) the capability to manually re-calculate market dispatch solutions. Westar requests that the Commission require SPP to develop a policy to share critical operation information with control area operators in order to facilitate reliable operation of the imbalance market. Further, Westar states that SPP should develop protocols for staying informed of resources' start-up status, in order to ensure operations are well-coordinated.

21. Westar opposes SPP's proposed under- and over-scheduling penalties and requests that the Commission reject these provisions. Westar states that these penalties would unnecessarily limit use of the imbalance market to four percent or less of SPP's total load, thereby creating an insubstantial market unable to deliver anticipated benefits.

### **Discussion**

22. As an initial matter, we reject the notion that SPP should delay implementation of its planned imbalance market in order to focus on developing a "full scale" Day-2 financial market. Arguments that the Commission should reject SPP's phased approach and require SPP to develop a complete Day-2 market design are beyond the scope of this

proceeding. The Commission previously rejected these arguments, finding that SPP's proposal to begin with phased implementation of its energy imbalance markets satisfies Order No. 2000's requirements for Day-1 operation.<sup>15</sup>

23. Additionally, contrary to Xcel's argument, we do not believe that SPP must develop marginal loss provisions for implementation with its proposed imbalance market. We believe that, at this juncture in SPP's development as an RTO, the resources and effort that would be necessary to create systems merely to calculate marginal loss would be better utilized making SPP's energy imbalance market successful and pursuing the additional phases of SPP's market development. However, since marginal losses can provide efficient price signals, we encourage SPP to reevaluate at each future phase in its development the decision to use average losses instead of marginal losses.<sup>16</sup> Further, in addressing Southwest Industrial's request to reject the use of single price auctions in the new imbalance market, we note that single price auctions, in which the last bid accepted sets the energy price, are used by all RTOs in settling real-time energy markets. We have stated our belief that locational marginal pricing and uniform pricing leads to the least cost dispatch and the lowest possible prices while fairly compensating suppliers.<sup>17</sup> The only alternative to single price auctions is "as-bid auctions" and we have previously rejected this alternative for a number of reasons.<sup>18</sup> Moreover, Southwest Industrial has not shown why use of the single clearing process would not be just and reasonable. We do not take lightly Southwest Industrial's concerns about over-recovery, but note that power under long-term contracts is not subject to re-pricing per the single price auction and that Southwest Industrial's concern about double cost-recovery from retail customers has not materialized in other markets that use single price auctions.

24. Further, SPP's proposal, in targeting the unique needs of the participants in the SPP region, is substantially different from other market proposals that we have evaluated. In this regard, we note that SPP's filing provides only the general outlines of its proposed market, and does not provide the Commission with sufficient detail to evaluate whether SPP's proposed rules will provide stable market operations at just and reasonable rates. For example, we find SPP's succinct examples of how the transmission loading relief (TLR) process will interact with the imbalance market insufficient to provide a full picture of these two simultaneously implemented processes. SPP should fully explain

---

<sup>15</sup> *Southwest Power Pool, Inc.*, 106 FERC ¶ 61,110 at P 134.

<sup>16</sup> The Commission notes that many RTOs with Day-2 energy markets currently use average losses. (The New York Independent System Operator, Inc. uses marginal losses.)

<sup>17</sup> *Midwest Independent Transmission System Operator, Inc.*, 102 FERC ¶ 61,196 at P 32 (2003).

<sup>18</sup> *See Id.*

how the processes will impact the rates in the imbalance market. More importantly, SPP should incorporate the rules for managing these interactions into its tariff, and include the formula rate for calculating the LIP at each node. SPP should also generally explain how the benefits of the market will accrue to market participants by clearly laying out the market participant's options with regard to choosing between their own resources and prices in the imbalance market.

25. SPP has repeatedly relied on its stakeholder process as one justification for its proposed tariff provisions. While we support stakeholder processes and the regionally-specific results of such processes, SPP is ultimately responsible for the stable operation of its market and must provide justification for its proposal to show that the market will operate reasonably and provide just and reasonable rates. With respect to the incorporation of details currently contained in the SPP's Draft Market Protocols, SPP's tariff must contain all of the provisions of the market that "significantly affect rates and services."<sup>19</sup> In other words, the tariff must provide enough information for market participants to determine the steps of all the processes that SPP will undertake, as well as the charges that apply to the imbalance market. For example, if SPP were inclined to include demand response as part of its proposal, the tariff provisions should be clear to allow market participants to determine the treatment of and billing for such resources. In another example, the tariff should include clear provisions on the settlement process, including details on the market participant input process for Settlement Locations and any limitations on establishing Settlement Locations.<sup>20</sup> When conflicts arise, SPP's tariff determines whether actions taken are consistent with the filed rate and, therefore, SPP's imbalance tariff provisions should include a greater level of detail than those submitted in the current filing.

26. SPP proposes a voluntary sellers' market and a mandatory buyers' market, but no way to bridge the gap if the offers are insufficient, short of implementing emergency procedures. SPP implies a requirement that each market participant supply energy, through self-dispatched resources or energy bids, to meet its load's needs, but does not include provisions in its tariff to specifically address the situation if this does not occur. The lack of clear tariff provisions that would set forth such a requirement raises concerns that there might not be adequate local generation, thus creating a situation in which market participants may lean on the system creating reliability concerns. Another concern raised by the voluntary bidder's market is that most generation will be self-

---

<sup>19</sup> See 16 U.S.C. § 824d (2000). See also, *ANL Funding I, LLC v. ISO New England, Inc.*, 110 FERC ¶ 61,040 at P 22-23 (2005) (finding that ISO New England's operating procedures "could significantly affect compensation" that generators receive by limiting their bidding options).

<sup>20</sup> We note that SPP should also clearly state the settlement interval in its next tariff submission.

dispatched resulting in insufficient energy bids in the market to allow SPP to resolve congestion through economic dispatch. In its revised proposal, SPP should clearly set forth its proposal and provide the tariff language setting forth the obligations. SPP's tariff and market protocols should provide for consistent obligations on the part of market participants.

27. With regard to tariff provisions that contribute to reliable and stable market operations, SPP should include in its tariff the process for evaluating the resource and ancillary services plans submitted in the day-ahead period and 30 minutes prior to the operating hour. Importantly, SPP should clarify how it will resolve conflicts when plans are deemed to fail the simultaneous feasibility tests in either of these time periods and detail market participants' obligations to follow SPP's instructions in this regard. Further, SPP should detail its plans for obtaining an approval from the North American Electric Reliability Council for changes to SPP's reliability plan as impacted by the new design and build consensus with the SPP Operating Reliability Working Group to resolve their reliability concerns.

28. Additionally, we disagree with Westar that under- and over-scheduling penalties are not needed, but share concern that the penalties as implemented will limit use of the imbalance market or create poor incentives for suppliers to offer energy into the market. We are concerned that SPP's proposed under- and over-scheduling penalties do not fully address the harms they are intended to address. SPP states that these penalties were developed to counteract incentives to under-schedule counterflow transactions and over-schedule in order to hoard transmission. However, under certain scenarios, these penalties might not be adequate to prevent incentives to over-schedule generation or under-schedule load.<sup>21</sup> SPP should address such scenarios when it files its next proposal. Moreover, SPP should be sure that these penalties will not discourage participation in the imbalance market or encourage the dispatch of non-economic resources due to actions taken to avoid penalties. SPP should also explain whether its scheduling provisions serve any function in addition to that of a tool used to calculate and settle imbalances. For

---

<sup>21</sup> For example, if there is congestion on the transmission system between the market participant's generation and load, and if the price at the market participant's load node is higher than the price at the generation node, the market participant could benefit from over-scheduling without incurring an over-scheduling penalty. A market participant would not pay the proposed over-scheduling penalties if its actual generation does not deviate from its generation schedule. In that situation, a market participant taking network transmission service would use more transmission rights than its load required in that period and thereby potentially exclude non-firm transmission customers from using the congested transmission lines. Additionally, tying scheduling penalties to actual dispatch levels could provide incentives to strategically bid to ensure generation schedules are met in order to avoid the over-scheduling penalty.

instance, if SPP plans for schedules to serve as a tool for hedging congestion costs, SPP should fully explain how such a mechanism would work.

29. We further note that SPP has not sufficiently addressed the interaction between the imbalance market provisions, including SPP's dispatch instructions, and control area operations. For example, will control area operators that are also serving load be allowed to self-dispatch their generating units to provide their own imbalances and load-following, or must they purchase that service from SPP? SPP has also not clarified how it will resolve conflicts that arise between the SPP dispatch instructions and the reliability operations of the control areas. In this regard, SPP should clearly address the following issues: (1) the respective obligations of SPP and control areas; (2) liability of control area operators; (3) any cost shifting and compensation that might occur with implementation of the imbalance market; (4) potential adverse impacts on reliability resulting from the shift in responsibilities and new cost obligations, and corrective measures that can be taken; and (5) seams issues, if any, that result from changes in control area responsibilities. In a related matter, SPP should also include in its tariff provisions for maintaining inadvertent interchange accounts and administering inadvertent payback for all control areas. SPP should clarify the criteria for administering interchange accounts and joint operating agreements, and specify whether the possible profit or loss resulting from changes in energy imbalance prices will be considered in inadvertent payback decisions. SPP should also provide further explanation in its tariff of its calculation of net scheduled interchange and the planned procedures for implementing net scheduled interchange. Further, SPP must include in its tariff the process it will use to manage the interaction between reserve sharing events and dispatch instructions emanating from the imbalance market.

30. Finally, we encourage SPP to provide in its future filing a discussion of the steps it intends to take prior to implementation of the market, including any metrics that it might use to evaluate its readiness to implement the markets and its plans for addressing any reliability issues that may arise with implementation. In this regard, we recommend the adoption of a reversion plan to address the unlikely event of a failure of the market.<sup>22</sup> Because the provision of imbalances are key to the reliable and stable operation of any transmission grid management, we believe that a reversion plan is a wise insurance policy that should be adopted for implementation of any new market.

---

<sup>22</sup> See *Midwest Independent Transmission System Operator, Inc.*, 108 FERC ¶ 61,163 at P 58, *order on reh'g*, 109 FERC ¶ 61,157 (2004) (requiring the Midwest ISO to file a reversion plan, *i.e.*, a detailed plan, including demonstration of successful testing of the plan, for cutover to decentralized power system operations in the event of a serious failure of Day-2 operations).

## **Market Based Rates in the SPP Region**

### **Protests**

31. East Texas Cooperatives and Midwest Energy request Commission clarification that, once SPP begins to perform the energy imbalance function, applicants for market-based rates will be allowed to treat the market covered by the SPP tariff as the default relevant market for purposes of calculating the generation market power screens.

### **Discussion**

32. We do not have before us in this proceeding a specific request by an entity seeking market-based rates to use SPP as the relevant geographic market. Nevertheless, we will provide guidance on this issue. We have stated that market-based rate applicants located in RTOs “with sufficient market structure and a single energy market may consider the geographic region under the control of the ISO/RTO as the default relevant geographic market” for purposes of completing the market power analysis.<sup>23</sup> On the issue of whether SPP would qualify as a single geographic region, the Commission found that “[t]he ISO/RTO-wide geographic market delineation would not be appropriate for MISO or SPP at this time because neither performs functions such as a single central commitment and dispatch” and that SPP would be considered a single geographic region once it “files and obtains Commission approval of its compliance filing and begins to perform functions such as single central commitment and dispatch.”<sup>24</sup>

33. SPP has proposed a market that will function without a central unit commitment process and with dispatch of only that portion of the generating resources that voluntarily bid into the imbalance market. Therefore, SPP has not proposed a single central commitment and dispatch that would qualify SPP as a single geographic region for all electricity products sold in the region. The Commission will address applications for market-based rate authorization which use SPP as the default relevant market on a case-by-case basis. Market participants may provide the Commission with evidence of why an alternative geographic market besides the default control area is appropriate to use for the screens, and if the applicant has market power, how its sales for all relevant products in SPP are adequately mitigated and monitored.<sup>25</sup>

34. We also recognize that if market-based rate applicants are denied market-based rates for the purpose of participating in SPP’s imbalance market, SPP might need to

---

<sup>23</sup> *AEP Power Marketing, Inc.*, 107 FERC ¶ 61,018 at P 187, *order on reh’g*, 108 FERC ¶ 61,026 (2004).

<sup>24</sup> *Id.* at P 188.

<sup>25</sup> *Id.* at 34-35.

develop a separate set of settlement procedures for payment of imbalances at market participants' cost-based caps. Such procedures would be required because market participants that self-dispatch more generation than their load consumes would necessarily be providing imbalance energy to the market, whether or not they voluntarily bid their energy into the market. Alternately, market participants without market-based rates might prefer to propose changes to their cost-of-service rates that would require bidding into the imbalance market at cost-of-service rates and payment at LIPs.

## **Monitoring and Mitigation**

### **Role of the Market Monitor**

#### **SPP's Proposal**

35. Pursuant to SPP's proposed market monitoring plan (Attachment AG), the market monitoring function is fulfilled by the MMU and external IMM<sup>26</sup> (collectively, the market monitor). While individual roles of the MMU and IMM are not specified,<sup>27</sup> together they are responsible for: (1) designing and implementing SPP's Commission-approved market mitigation and monitoring plans; (2) recommending updates to those plans; and (3) reviewing SPP's market design and protocols and recommending changes to the SPP tariff as necessary. The market monitor is also responsible for issuing periodic reports to the Board of Directors, the Commission, the regional state committee (RSC), and other appropriate state regulatory agencies. In performing these duties, the market monitor is to review data and information regarding: (1) resource and ancillary service plans; (2) actual commitment and dispatch of generating units; (3) locational imbalance prices; (4) control area data; (5) conditions or events inside or outside the SPP region affecting the supply and demand and the quantity and prices of products or services sold or to be sold in SPP's market; (6) transmission information including transmission congestion data; (7) settlement data; and (8) any information regarding collusive or other anticompetitive behavior. The market monitor must notify the Commission as soon as practicable in the event it identifies a significant market problem that might require further investigation, a tariff or market rules revision, or action by an interested government agency.

36. Also under proposed Attachment AG, the market monitor's enforcement power is limited to matters that are expressly set forth in the tariff, involve "objectively-identifiable" behavior, and do not subject the market participant to sanctions or other

---

<sup>26</sup> SPP's chosen IMM is Boston Pacific.

<sup>27</sup> After noting that the market monitor will be comprised of two units, the term "market monitor" is used throughout the rest of attachment AG (with the exception of section 3.3., where the term "external market monitor" is used).

consequences other than those expressly approved by the Commission and set forth in the tariff. The market monitor is to notify the appropriate SPP organizational group, SPP president, RSC, appropriate state authorities, and Commission staff of any weaknesses or failures in SPP's market design or market rules. It also must make recommendations to the SPP Board to correct weaknesses or failures in SPP's markets and services.

### **Protests**

37. Noting that Attachment AG refers to the MMU and IMM as a single unit (*i.e.*, market monitor), TDU Intervenors and East Texas Cooperatives argue that the division of responsibilities between the MMU and the IMM must be clarified.<sup>28</sup> Otherwise, TDU Intervenors express concern that the responsibility for specific tasks could be overlooked. In addition, East Texas Cooperatives state that it is unclear who will make a final determination in cases of conflict between the MMU and the IMM.

### **Discussion**

38. While SPP filed its IMM Services Agreement pursuant to prior Commission orders,<sup>29</sup> neither the agreement, nor SPP's tariff, provide sufficient detail regarding the respective roles of the MMU and the IMM. As such we are concerned that responsibilities for both monitoring and mitigation will not be fully met. We agree with protestors that SPP must clarify the division of responsibilities between the MMU and the IMM, in order to provide for accountability and to ensure that monitoring and mitigation obligations are satisfied. To the extent that any responsibilities overlap, SPP should provide for a means of resolution in cases of conflict between the MMU and IMM. We further emphasize that ultimately the Commission, not the market monitor (whether internal or external) has oversight and enforcement authority.<sup>30</sup> Accordingly, SPP should ensure that any proposed tariff revisions do not describe the market monitor as having "enforcement power."

---

<sup>28</sup> For example, if the MMU is to do all monitoring except for special reports or specific calculations of offer caps, the specifics should be evident in the tariff.

<sup>29</sup> See *Southwest Power Pool, Inc.*, 109 FERC ¶ 61,009 at P 71-86 (2004).

<sup>30</sup> See *Southwest Power Pool, Inc.*, 110 FERC ¶ 61,137 at P 24 (2005).

## **Mitigation Measures**

### **SPP's Proposal**

39. SPP's proposed market mitigation plan (Attachment AF) primarily addresses economic withholding of generation from the imbalance market, and economic and physical withholding of transmission.

40. For economic withholding in SPP's imbalance market, mitigation will be applied only during transmission constraints, and there will not be mitigation below the long-run marginal cost of new investment. There is no safety net bid cap or must-offer requirement for generation. When a transmission constraint is active, as determined by the TLR congestion management process, an offer cap shall apply to certain resources within electrical proximity to a constrained flowgate. Such resources will be determined for each flowgate through the use of generator-to-load distribution factors.<sup>31</sup> Resources that are located on the importing side of a constrained flowgate that have generator-to-load distribution factors greater than or equal to 5 percent shall be subject to an offer cap. SPP shall electronically post a list of all resources subject to the offer cap for each flowgate. Resources with a smaller impact on the flowgate will not be mitigated. The market monitor is to reassess the status of the resources subject to offer caps on an annual basis and when transmission and generation facility additions, outages, changes, or changes in ownership occur that may reasonably cause the resources' offer capped status to change.

41. The IMM states that mitigation should not cap prices at levels below those needed to justify new investment. Thus, it proposes that the offer cap be tied to the cost of new investment as follows: Offer caps will be determined for capped resources in each constrained area and will be equal to the sum of: (1) the higher of (a) \$100/MWh; or (b) the estimated annual fixed cost (AFC) of a new, natural-gas fired, combustion turbine peaking generation facility in \$/MW-year divided by the annual hours of constraint (AHC); (2) an adder equal to the estimated non-fuel variable operation and maintenance costs of a new, natural gas-fired, combustion turbine peaking generation facility in \$/MWh; and (3) the fuel cost of the peaking facility in \$/megawatt hour calculated as the

---

<sup>31</sup> We note that SPP uses the terms "generator-to-load distribution factor" and "generator shift factor" interchangeably in its filing. We suggest the use of a single term to reduce confusion.

heat rate multiplied by the natural gas price index, which will be updated daily. The formula is constructed such that the greater the annual hours of constraint for a resource, the lower the cap that will be applied there.<sup>32</sup>

42. Attachment AF provides that opportunities for economic withholding of transmission exist where transmission and generation owners (market participants controlling or owning both transmission and generation assets in the SPP region) have a significant ability to adversely influence the cost of transmission access. Under a conduct test, economic withholding may occur when transmission and generation owners provide improper information regarding the estimation of transmission access costs. Improper information is defined as data and methods for determining transmission access that is not comparable to that used for affiliates. Under an impact test, economic withholding may occur when a transmission and generation owner forecloses a new or existing competitor in the SPP region in part or in whole. When a transmission and generation owner fails the conduct and impact tests, the market monitor shall refer the instance of economic withholding to the Commission with a refund or penalty equal to a percent of the overestimate of transmission access costs. The more severe the improper conduct, the higher the percent penalty that should be requested.

43. Attachment AF provides that opportunities for physical withholding of transmission exist where transmission owners that also own generation have a significant ability to determine the availability of transmission capability and cause transmission constraints to occur in the imbalance market. Under a conduct test, physical withholding of transmission may occur when transmission and generation owners provide improper information on transmission availability that causes one or more binding transmission constraints in the imbalance market.<sup>33</sup> Under an impact test, physical withholding may occur in the imbalance market when transmission and generation owners fail the conduct test with conduct that causes relevant wholesale prices to increase by 5 percent or more as compared to prices absent physical withholding conduct. Section 5.1 states that no mitigation is necessary or warranted for physical withholding of generation in the imbalance market, since participation in the market is voluntary, but further provides that

---

<sup>32</sup> Offer caps may vary for resources affecting the same constraint, as different resources may have significant impacts upon different combinations of flowgates. For example, if flowgate A is constrained 100 hours and flowgate B 50 hours, a resource that affects only A would have 100 hours of constraint used in the calculation of its offer cap, while a resource affecting both A and B would have 150 hours used in the calculation of its offer cap (assuming that they are not overlapping hours of constraint).

<sup>33</sup> For example, SPP states that it will monitor transmission owners' modeling inputs to the processes used to determine Available Flowgate Capacity and used to make TLR calls.

the market monitor will monitor participation to determine whether decisions to participate in the imbalance market have a significant adverse impact on market outcomes.

44. When a transmission owner that also owns generation fails the conduct and impact tests, the market monitor shall refer the instance of physical withholding to the Commission with an estimate of damages equal to the effect on prices multiplied by the affected energy produced by the transmission and generation owner. The market monitor may also request that the Commission impose additional sanctions and penalties that may consist of a fixed dollar amount based on each instance of physical withholding or an amount up to the effect on prices multiplied by the affected energy produced by market participants other than the transmission and generation owner.

### **Protests**

45. TDU Intervenors argue that the mitigation measures should have a provision for monitoring and mitigating resources on the exporting side of a constraint. They contend that sellers can exercise market power on the exporting side by increasing generation on one side to cause the constraint to bind, giving the seller the ability to exercise market power on the other side of the constraint.<sup>34</sup>

46. Certain protestors believe that the proposed mitigation for economic withholding of generation will be insufficient to protect market participants. TDU Intervenors and Golden Spread advocate the adoption of a safety net bid cap. TDU Intervenors believe that the offer caps should be limited to short-run marginal costs plus 10 percent, pointing to the Commission's finding that a similar cap in PJM does not interfere with efficient pricing there.<sup>35</sup> TDU Intervenors argue that, if SPP's offer cap design is retained, the FPA would require adjustments to prevent over-recovery of costs beyond those that provide incentives for entry. East Texas Cooperatives and TDU Intervenors argue that the proposed \$100/MWh price floor AFC/AHC component (*i.e.*, the estimated AFC of a new, natural-gas fired, combustion turbine peaking generation facility in \$/MW-year divided by the AHC) for offer capped resources is unjust and unreasonable, stating that the offer cap at frequently constrained locations would be considerably lower if there were no floor.

---

<sup>34</sup> *Citing* Midwest Independent System Operator, Inc., 108 FERC ¶ 61,163 at P 321, 327 (2004).

<sup>35</sup> TDU Intervenors at 41 (*citing* PJM Interconnection, LLC, 107 FERC ¶ 61,112 at P 36-7 (2004)).

## **Discussion**

47. We believe that limiting mitigation for economic withholding to units that have a significant impact upon a constraint, when the constraint is active, is appropriate. However, we also believe that further refinement and explanation of SPP's proposed mitigation measures is appropriate.

48. With respect to mitigation of economic withholding, it is not clear that the tariff addresses the ability of generators that are owned or operated by the same entity to exercise market power in concert. The ability of such related generators to coordinate in order to exercise market power must be addressed in the tariff. In other words, SPP needs to address market power resulting from a portfolio of resources owned or controlled by the same entity, as well as market power that can be exercised by an individual resource.

49. In addition, as we stated above, the market monitor may not have "enforcement powers"; such authority is left to the Commission. Accordingly, the market monitor's role concerning penalty charges is as a part of SPP's tariff administration, rather than as a part of an enforcement duty.

50. Finally, with regard to SPP's proposed conduct and impact tests for withholding of transmission, we note that these tests are unlike conduct and impact tests we have approved for assessing withholding of generation in other RTOs.<sup>36</sup> In its next energy imbalance market filing or similar proposal, SPP should provide justification for its proposed tests, and how they will ensure adequate mitigation of transmission market power.

## **Level of Monitoring**

### **Protests**

51. Xcel argues that, while SPP's market monitoring plan is patterned after that of the Midwest ISO, the scope of the plan is too wide, because SPP is proposing a limited energy imbalance market. It believes the plan should match the limited market design. Alternatively, it believes SPP should be ordered to provide details that have been left for the future, so that market participants have sufficient time to prepare for market operations.

---

<sup>36</sup> No other RTO has conduct and impact tests for economic withholding of transmission.

## **Discussion**

52. We do not believe that the monitoring plan is excessive given the potential scope of the market. SPP proposed that, as long as load-serving entities provide sufficient resources through their resource plans, parties may procure all of their real-time energy needs when imbalance prices are lower than their own resources' costs. As such, it is important for the market monitor to watch the ability of market participants to exercise market power directly through withholding of generation and indirectly through withholding of transmission, determine their compliance with market rules, and look for changes to the design and implementation of SPP's markets and services to improve the operation of markets. It is also important for the market monitor to be aware of events and circumstances in related and adjacent markets to assess the impacts on the SPP's markets and services.

## **Discretion of the Market Monitor**

### **Protests**

53. Several protestors argue that SPP's proposed market mitigation plan vests the market monitor with too much discretion to determine whether economic or physical withholding has occurred and whether to report such exercises of market power to the Commission. For example, they note that Attachment AF provides that economic or physical withholding "may occur" when certain conditions are met, rather than providing that economic or physical withholding definitively has occurred.<sup>37</sup> East Texas Cooperatives argue that SPP's proposal leaves uncertain what will happen once the market monitor finds withholding or unavailability of facilities. They note that SPP's IMM states in its testimony that if a market participant fails both the conduct and impact tests, the MMU or IMM "may take the case to FERC with an estimate of damages."<sup>38</sup> According to East Texas Cooperatives, this conflicts with Attachment AF's requirement that the market monitor refer instances of economic and physical withholding to the Commission.

54. TDU Intervenors note that the tariff provides that market participants with offer capped resources may justify an offer curve priced above an offer cap for a resource upon a demonstration that their opportunity cost, risk, or facility operating cost exceeds the

---

<sup>37</sup> For example, under the conduct test (section 4.2), "Economic Withholding may occur when Transmission/Generator Owners provide improper information regarding the estimation of . . . transmission access costs." Under the impact test (section 4.3), "Economic Withholding may occur when a Transmission/Generation Owner forecloses a new or existing competitor in the SPP Region in part or in whole."

<sup>38</sup> Roach testimony at 25.

applicable offer cap. TDU Intervenors believe that initially set offer caps and exceptions thereto should be subject to Commission approval. They argue, for example, that the Commission should review the market monitor's choice of the type of peaking unit used to determine the cap, because different types have substantially different costs. TDU Intervenors maintain that there should be standards for judging exceptions to the offer cap and Commission review of requests for exceptions.

### **Discussion**

55. The Commission shares concerns about the market monitor's discretion in interpreting and applying the market mitigation measures. The tariff must be clear in establishing when an entity fails the conduct or impact tests, and the language "may occur" in the definitions of conduct and impact tests does not meet this standard. The tariff also must make clear the circumstances under which mitigation will or will not be applied (such as detailed specifications of the standards for exemption from mitigation) when a party fails both the conduct and impact tests for economic withholding of transmission. While there may be circumstances when it would be inappropriate to impose mitigation when a party has failed the conduct and impact test, the tariff must make clear and detail the circumstances under which SPP will not refer failures of the conduct and impact tests for other types of withholding to the Commission.<sup>39</sup>

56. Similarly, while there may be a need for exemptions to the offer cap, SPP must provide more detail regarding the standards for granting exemptions. For example, it must state how risk, facility cost, and opportunity costs (such as for energy limited units) are to be calculated, when a generator asks for an exemption from the offer cap. Further, we agree that any exemptions granted should be subject to Commission review.

### **Compliance with the Market Monitoring Policy Statement**

#### **Protests**

57. Several protestors argue that SPP's filing must comport with the Commission's MMU Policy Statement,<sup>40</sup> and, indeed, SPP acknowledges in its filing that it has not evaluated its proposal for compliance with that statement.

---

<sup>39</sup> For example, the tariff could say that a party fails the impact test under specified circumstances. It could go on to say that if the party fails both the conduct and impact test, specific mitigation will be applied (or a referral will be made to the Commission for mitigation) except under circumstances laid out in the tariff.

<sup>40</sup> *Policy Statement on Market Monitoring Units*, 111 FERC ¶ 61,267 (2005).

### **Discussion**

58. SPP must ensure that any market monitoring and mitigation plan is consistent with the Commission's MMU Policy Statement. As discussed in that statement, MMUs are to identify ineffective market rules, recommend needed rule and tariff changes, and support the RTO in administration of Commission-approved tariff provisions (that is, compliance with objectively-identifiable behavior for which there are specific, Commission-approved tariff sanctions). If, in the course of monitoring market participant behavior, the MMU finds conduct that may require investigation and evaluation, the MMU is to refer such behavior to the Commission as specified in the MMU Policy Statement referral protocols. To conform Attachment AF (Market Power Mitigation Plan) and Attachment AG (Market Monitoring Plan) to the Commission's guidance on the appropriate role of the MMU, SPP should: (1) delete references to the MMU conducting investigations, including section 6 of Attachment AG; (2) change references to the MMU's activity to "administering" rather than "enforcing" tariff compliance; (3) include instructions to the MMU to refer potential tariff violations that require investigation to the Commission confidentially and in accordance with the MMU Policy Statement protocols; (4) change section 3 of Attachment AF to set out the standards for mitigation exceptions and identify the documentation to be provided to the MMU; and (5) include the Commission's Market Behavior Rules verbatim in section 7 of Attachment AF. Further, as discussed above, SPP should clearly define the individual roles of its internal and external market monitors, and, in doing so, make clear that only SPP may collect penalty charges.

### **Other Issues**

#### **Grandfathered Contracts and Bundled Retail Load**

59. SPP's filing does not provide an explanation of its proposed integration of grandfathered agreements into the imbalance market. For a transmission owner that is providing transmission service for bundled retail load or pursuant to a grandfathered agreement but is not taking point-to-point or network integration transmission service for that load, SPP proposes to charge the transmission owner "the hourly non-firm point-to-point transmission service rate . . . multiplied by the actual amount of imbalance energy transmitted in excess of 4 percent of the sum of such transmission owner's bundled retail load and load under Grandfathered Agreements in each hour."<sup>41</sup>

---

<sup>41</sup> Southwest Power Pool FERC Electric Tariff Fourth Revised Volume No. 1, Schedule 4, Original Sheet No. 99A.

### **Discussion**

60. In response to SPP's proposal in its RTO application to maintain 417 grandfathered contracts, we recognized that treatment of grandfathered contracts impacts an RTO's ability to administer its tariff and operate markets. We therefore required that transmission owners, on behalf of their entire load including grandfathered wholesale and bundled retail loads, take service under the non-rate terms and conditions in the SPP open access transmission tariff (OATT).<sup>42</sup> The Commission encouraged transmission customers with grandfathered contracts to convert to direct service under the SPP OATT, but neither required such conversion nor opted to modify the contracts.<sup>43</sup> Further, the Commission accepted SPP's commitment to hold technical workshops on the grandfathered contract issues and directed SPP to follow the example of the Midwest ISO by "develop[ing] a mechanism to convert [grandfathered contracts] to the SPP OATT to ensure efficient, non-discriminatory market operations."<sup>44</sup> In its next filing to implement the imbalance market, SPP should explain whether all of the grandfathered agreements in its region have been converted to the SPP tariff.<sup>45</sup> The filing should also address the treatment of bundled retail loads, in a manner consistent with the Commission's prior directives on this issue.

### **Loss Compensation Procedure**

61. SPP proposes to allow transmission loss obligations associated with transactions into or within the SPP transmission system to be met through self-supply or purchase of imbalance energy. For transactions out or through the SPP transmission system, customers may continue to meet their loss obligation through self-supply or financially through the existing annual purchase of loss energy procedure. SPP states that "energy delivered and payments made in the settlement of losses will be reconciled with each Zone and directly allocated to each Zone by SPP."<sup>46</sup>

### **Protest**

62. Xcel protests the use of different loss compensation procedures for transactions sinking in SPP's transmission system versus transactions sinking outside of the SPP region.

---

<sup>42</sup> *Southwest Power Pool, Inc.*, 106 FERC ¶ 61,110 at P 107.

<sup>43</sup> *Id.* at P 108.

<sup>44</sup> *Southwest Power Pool, Inc.*, 109 FERC at 61,032, 61,034.

<sup>45</sup> Also, SPP should clarify its transmission charges for imbalances by indicating whether imbalances could ever be in excess of an entity's actual load.

<sup>46</sup> SPP transmittal at 16.

### **Discussion**

63. We encourage SPP to explain its loss compensation procedure in more detail, including the revenue distribution for the loss revenue. Since SPP proposes to charge for losses that are not self-supplied, through the purchase of energy from the imbalance energy market, SPP should explain why it will settle the energy delivered and payments made for losses by reconciling with each zone and directly allocating to each zone. Further, SPP should explain the rationale for settling losses based on the sink nodal price instead of the source nodal price, and demonstrate that no over- or under-recovery will occur by using the sink nodal price. Finally, we encourage SPP to submit illustrative examples to demonstrate how SPP's loss compensation procedures function and to address Xcel's concerns on losses.

### **Miscellaneous**

64. SPP has proposed transmission charges for certain transmission customers when imbalances exceed reserved transmission capacity by a stated threshold. SPP should explain the application of these transmission charges and justify the different treatment proposed for network integration transmission service customers, point-to-point customers and bundled load customers.

65. Also, SPP should amend section 8.1 to clarify that the market monitor will provide periodic reports at least annually and other reports on an as needed or as requested basis.

66. In its future filing, SPP should submit a progress report on its efforts to renegotiate its Joint Operating Agreement with Midwest ISO and detail the potential methods for resolving any outstanding MISO-SPP seams issues that still exist at the time of SPP's filing. SPP should also explain its efforts to resolve seams issues with other neighboring control areas.

### **The Commission orders:**

SPP's filing is hereby rejected, as discussed in the body of this order.

By the Commission.

( S E A L )

Magalie R. Salas,  
Secretary.