

July 29, 2015

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

Re: *Southwest Power Pool, Inc.*, Docket No. ER15-____-000
Submission of Tariff Revisions to Clarify Ramp Sharing Provisions

Dear Secretary Bose:

Pursuant to section 205 of the Federal Power Act, 16 U.S.C. § 824d, and Part 35 of the Regulations of the Federal Energy Regulatory Commission (“Commission”), 18 C.F.R. Part 35, Southwest Power Pool, Inc. (“SPP”), as authorized by its Board of Directors, submits revisions to its Open Access Transmission Tariff¹ to include Regulation-Down Service among those Operating Reserve products capable of ramp sharing with Energy during clearing to ensure that any short-term ramping deficiencies from hour to hour in the Day-Ahead Market or across Dispatch Intervals in the Real-Time Balancing Market do not initiate unjustified Scarcity Pricing. SPP requests an effective date of September 28, 2015 for the revisions proposed in this filing.

I. BACKGROUND

A. SPP

SPP is a Commission-approved regional transmission organization (“RTO”). It is an Arkansas non-profit corporation with its principal place of business in Little Rock, Arkansas. SPP currently has 90 members serving more than 6 million households in a 370,000 square-mile area. Its members include 16 investor-owned utilities, 12 municipal systems, 17 generation and transmission cooperatives, 8 state agencies, 13 independent power producers, 12 power marketers, 11 independent transmission companies, and 1 federal agency. As an RTO, SPP administers open access transmission service over more than 48,000 miles of transmission lines covering portions of Arkansas, Kansas, Louisiana, Missouri, Nebraska, New Mexico, Oklahoma, and Texas.

¹ Southwest Power Pool Open Access Transmission Tariff, Sixth Revised Volume No. 1 (“Tariff”).

B. Integrated Marketplace

On February 29, 2012, SPP submitted to the Commission proposed revisions to its Tariff to transition from its Real-Time Energy Imbalance Service Market to the SPP Integrated Marketplace, which includes (among other things): Day-Ahead and Real-Time Energy and Operating Reserve Markets; Transmission Congestion Rights Markets; the formation of a consolidated SPP Balancing Authority Area; and a market power monitoring and mitigation plan based on conduct and impact thresholds. The Commission accepted the Integrated Marketplace proposal and subsequent compliance and amendatory filings in a series of orders issued October 18, 2012,² September 20, 2013,³ January 29, 2014,⁴ and June 19, 2014.⁵ SPP commenced operation of the Integrated Marketplace on March 1, 2014.

C. Stakeholder Process

The revisions proposed in this filing were developed through the SPP stakeholder process. The Market Working Group approved the proposed revisions on March 18, 2015, and the Regional Tariff Working Group approved them on March 25, 2015. On April 2, 2015, the Operations Reliability Working Group approved the revisions, determining that there was no reliability impact. The SPP Markets and Operations Policy Committee approved the revisions on April 15, 2015. On April 28, 2015, the SPP Members Committee voted to recommend approval of and the SPP Board of Directors approved the revisions proposed in this filing. SPP recognizes that stakeholder approval does not by itself cause a filing to be just and reasonable; however, SPP requests that the Commission extend appropriate deference to the wishes of its stakeholders regarding the revisions proposed in this filing, consistent with Commission precedent.⁶

² *Sw. Power Pool, Inc.*, 141 FERC ¶ 61,048, at P 2 (2012), *order on reh'g and clarification*, 142 FERC ¶ 61,205 (2013), *appeal dismissed*, No. 13-1181, 2014 U.S. App. LEXIS 10064 (D.C. Cir. Apr. 15, 2014).

³ *Sw. Power Pool, Inc.*, 144 FERC ¶ 61,224, at P 20 (2013).

⁴ *Sw. Power Pool, Inc.*, 146 FERC ¶ 61,050 (2014).

⁵ *Sw. Power Pool, Inc.*, 147 FERC ¶ 61,212, *order on clarification*, 149 FERC ¶ 61,253 (2014).

⁶ The Commission previously has recognized that provisions approved through the stakeholder processes of RTOs are due deference. *See Sw. Power Pool, Inc.*, 127 FERC ¶ 61,283, at P 33 (2009) (noting that the Commission “accord[s] an appropriate degree of deference to RTO stakeholder processes”); *New England Power Pool*, 105 FERC ¶ 61,300, at P 34 (2003) (approving a transmission cost allocation proposal based upon an extensive and thorough stakeholder process);
(continued . . .)

II. DESCRIPTION OF AND JUSTIFICATION FOR PROPOSED TARIFF REVISIONS

A. Reason and Justification for Tariff Revisions

It was SPP's intention when developing the Integrated Marketplace to include Regulation-Down Service among those Operating Reserve products capable of ramp sharing with Energy during clearing to ensure that any short-term ramping deficiencies from hour to hour in the Day-Ahead Market or across Dispatch Intervals in the Real-Time Balancing Market do not initiate unjustified Scarcity Pricing. When SPP submitted the Integrated Marketplace filing,⁷ it provided in Section 5.1.2.1 of Attachment AE that "[t]o the extent that ramp sharing is implemented, it shall remain in effect in all hours of the Day-Ahead Market, in order to clear sufficient amounts of Energy, Regulation-Up and Spinning Reserve to meet the requirements."⁸ The omission of Regulation-Down Service among the Operating Reserve products capable of ramp sharing with Energy during clearing (i.e., Regulation-Up Service and Spinning Reserve) was inadvertent. SPP makes this filing now to correct that inadvertent omission and to reflect its original intention with respect to ramp sharing.

B. Description of Tariff Revisions

To correct the inadvertent omission discussed above, SPP proposes to revise Section 5.1.2.1 of Attachment AE to clarify that the Operating Reserve products capable of ramp sharing with Energy during clearing includes Regulation-Down Service. Specifically, SPP proposes to add "Regulation-Down Service" to the sentence from Section 5.1.2.1 quoted above so that it now reads "[t]o the extent that ramp sharing is implemented, it shall remain in effect in all hours of the Day-Ahead Market, in order to

(... continued)

Policy Statement Regarding Regional Transmission Groups, 1991-1996 FERC Stats. & Regs., Regs. Preambles ¶ 30,976, at 30,872 (1993) (explaining that the Commission will afford an appropriate degree of deference to the stakeholder approval process). The Commission's deference to RTO stakeholder processes has been upheld by the courts. *See Pub. Serv. Comm'n of Wis. v. FERC*, 545 F.3d 1058, 1062-63 (D.C. Cir. 2008) (citing *Am. Elec. Power Serv. Corp. v. Midwest Indep. Transmission Sys. Operator, Inc.*, 122 FERC ¶ 61,083, at P 172 (2008) (noting that the Commission often gives weight to RTO proposals that reflect the position of the majority of the RTO's stakeholders)).

⁷ Submission of Tariff Revisions to Implement SPP Integrated Marketplace of Southwest Power Pool, Inc., Docket No. ER12-1179-000 (Feb. 29, 2012).

⁸ *Id.*, Proposed Tariff at Attachment AE § 5.1.2.1.

clear sufficient amounts of Energy, Regulation-Up Service, Regulation-Down Service and Spinning Reserve to meet the requirements.”

III. ADDITIONAL INFORMATION

A. Information Required by the Commission’s Regulations

(1) Documents submitted with this filing:

In addition to this transmittal letter, SPP includes in this filing clean and redlined versions of the proposed revisions to the Tariff in electronic format.

(2) Effective date:

SPP requests that the Commission accept the proposed revisions to the Tariff effective September 28, 2015.

(3) Service:

SPP has served a copy of this filing on all SPP members and customers and all affected state commissions in the SPP Region. A complete copy of this filing will be posted on the SPP web site, www.spp.org.

(4) Requisite agreements:

There are none.

(5) Estimate of transactions and revenues:

Not applicable to this filing.

(6) Basis of rates:

The basis for the proposed revisions is explained above.

(7) Comparison to rates for similar services:

Not applicable to this filing.

(8) Specifically assignable facilities installed or modified:

There are none.

B. Communications

Correspondence and communications with respect to this filing should be sent to, and SPP requests that the Commission include on the official service list for this proceeding, the following individuals:

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IV. CONCLUSION

For all of the foregoing reasons, SPP respectfully requests that the Commission accept the Tariff revisions proposed in this filing as just and reasonable, effective as discussed above.

Respectfully submitted,

/s/ Matthew J. Binette

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5.1.2 Day-Ahead Market Execution

The Transmission Provider will employ a simultaneous co-optimization methodology to perform the following tasks in order to clear the Day-Ahead Market for each hour of the upcoming Operating Day:

- (1) Commit Offered Resources, Import Interchange Transaction Offers and Virtual Energy Offers using the SCUC algorithm to meet the Demand Bids, Virtual Energy Bids, Export Interchange Transactions Bids, Head-room requirements, Floor-room requirements, and Operating Reserve requirements on a least cost basis for each hour of the upcoming Operating Day.
 - (a) The Day-Ahead Market SCUC algorithm will initially consider commitment of Resources not specified for reliability only use as described in Section 4.1(10)(c) of this Attachment AE, including Resources committed in the Multi-Day Reliability Assessment, up to the Resources' Maximum Economic Capacity Operating Limit or Maximum Regulation Capacity Operating Limit if selected for Regulation-Up Service and/or Regulation-Down Service, and down to the Resources' Minimum Economic Capacity Operating Limit or Minimum Regulation Capacity Operating Limit if selected for Regulation-Down Service and/or Regulation-Up Service.
 - (i) If this capacity is not sufficient to meet the fixed Demand Bids and fixed Export Interchange Transaction Bids, Head-room requirements, and Operating Reserve requirements on a system-wide basis, the Day-Ahead Market SCUC algorithm will, in priority order: (1) curtail non-firm fixed Export Interchange Transaction Bids until the capacity shortage is eliminated; and (2) incorporate capacity up to Resources' Maximum Emergency Capacity Operating Limits and/or commit Resources designated as reliability only use, as described in Section 4.1(10)(c) of this Attachment AE, on an economic basis until the capacity shortage is eliminated while attempting to maintain the Regulation-Up requirement to the extent possible .

- (ii) If there is a capacity surplus on a system-wide basis calculated as the sum of self-committed capacity at minimum output, fixed Import Interchange Transaction Offers, Floor-room requirement, and the Regulation-Down requirement that is in excess of the sum of fixed Demand Bids and fixed Export Interchange Transaction Bids, the Day-Ahead Market SCUC algorithm will, in priority order: (1) curtail non-firm fixed Import Interchange Transaction Offers until the capacity surplus is eliminated; and (2) incorporate capacity down to Resources' Minimum Emergency Capacity Operating Limits until the capacity surplus is eliminated while attempting to maintain the Regulation-Down requirement.
- (b) To the extent that a particular *security constraint impacting only the Transmission System* cannot be directly addressed within the Day-Ahead Market SCUC algorithm *and is not a Local Reliability Issue*, the Transmission Provider may manually commit Resources *and/or decommit Resources, including self-committed Resources to alleviate such a Transmission System security constraint in accordance with its authority as Reliability Coordinator. Such manual commitments shall be selected by the Transmission Provider in a non-discriminatory manner, which will be verified by the Market Monitor through the process described under Section 6.1.2.1 of this Attachment AE. Additionally, such manual commitments shall be selected by the Transmission Provider to ensure that commitment costs are minimized while adhering to Transmission System security constraints and the Resource operating parameter constraints submitted as part of the Day-Ahead Market Offers. The recovery of the compensation paid by the Transmission Provider for such committed Resources under Section 8.5.9 of this Attachment AE shall be collected by the Transmission Provider regionally as described under Section 8.5.10 of this Attachment AE.*
- (c) *A Local Reliability Issue or Local Emergency Condition may need to be addressed during the Day-Ahead Market process. Local Reliability*

Issues, either initially recognized directly as part of the Day-Ahead Market process or previously recognized and committed as part of any Reliability Unit Commitment process, may require out of merit commitment or decommitment to one or more Resources in the Day-Ahead Market to recognize or continue to recognize the Local Reliability Issue. A Local Emergency Condition previously recognized and committed as part of any Reliability Unit Commitment process may require out of merit commitment or decommitment to one or more Resources in the Day-Ahead Market to continue to recognize the Local Emergency Condition. In the case where a Local Reliability Issue Commitment is initiated directly as part of the Day-Ahead Market process, the Transmission Provider shall issue or the local transmission operator shall request the Transmission Provider to issue such instructions and any commitment by the Transmission Provider shall be selected by the Transmission Provider in a non-discriminatory manner, which will be verified by the Market Monitor through the process described under Section 6.1.2.1 of this Attachment AE. To the extent that the Transmission Provider, at the request of a local transmission operator, initially issues or continues to issue instructions to a Resource to address a Local Reliability Issue or continues to issue instructions to a Resource to address a Local Emergency Condition, such Resource shall be eligible for compensation in the same manner as any other Resource. The recovery of the compensation paid by the Transmission Provider for such committed Resources under Section 8.5.9 of this Attachment AE shall be collected by the Transmission Provider locally as described under Section 8.6.7(B) of this Attachment AE.

- (d) The Transmission Provider, local transmission operator, and Resource owners shall develop operating guides to be applied to manual commitments made by the Transmission Provider, including such commitments made at the request of the local transmission operator to relieve known and recurring Local Reliability Issues in the Day-Ahead Market. Such Resources will be compensated in the same manner as any*

other Resource. The recovery of such compensation paid by the Transmission Provider for such committed Resources under Section 8.5.9 of this Attachment AE shall be collected by the Transmission Provider locally as described under Section 8.6.7(B) of this Attachment AE.

(e) The Transmission Provider will re-run the Day-Ahead SCUC algorithm after any manual commitments, time permitting, if such manual commitments were not included in the initial run and will notify the Market Participants that units were manually committed.

(2) Using the Resource commitment results from the SCUC, clear Resource Offers, Virtual Energy Offers and Import Interchange Transaction Offers to meet Demand Bids, Virtual Energy Bids, Export Interchange Transaction Bids and Operating Reserve requirements on a least cost basis for each hour of the upcoming Operating Day using the SCED algorithm.

(a) The SCED algorithm includes marginal loss sensitivity factors that approximate the change in marginal system losses for a change in Energy dispatch.

(b) In certain situations, enforcing constraints may result in a solution that is not feasible at a Shadow Price less than an appropriately priced VRL. In such cases, the Transmission Provider must apply VRLs in SCED as described in Section 8.3.2 of this Attachment AE.

(c) The SCED algorithm will include product substitution logic as follows to clear Operating Reserve Offers:

(i) Any Regulation-Up Offers remaining once the Regulation-Up Requirement is satisfied may be used to meet Contingency Reserve requirements if Regulation-Up Offer is more economic or is required to meet the overall Operating Reserve requirement;

(ii) Any Spinning Reserve Offers remaining once the Spinning Reserve Requirement is satisfied may be used to meet Supplemental Reserve requirements if Spinning Reserve Offer is more economic or is required to meet the overall Operating Reserve requirement; and

- (iii) The product substitution logic ensures that the MCP for Regulation-Up is always greater than or equal to the Spinning Reserve MCP and that the Spinning Reserve MCP is always greater than or equal to the Supplemental Reserve MCP.
- (d) Use of co-optimization logic will provide, through the Shadow Price calculation, MCPs for Operating Reserve that include any lost opportunity costs incurred as a result of Operating Reserve clearing.

5.1.2.1 Clearing During Capacity Shortage

- (1) In the event of an Operating Reserve shortage in any hour that is not due to ramp limitations, Scarcity Pricing shall be implemented.
- (2) In the event of a capacity shortage to meet the fixed Demand Bids and fixed firm Export Interchange Transactions in any hour, the fixed Demand Bids and fixed firm Export Interchange Transactions will be reduced on a pro-rata reduction basis based on the fixed MW amounts to match the available capacity and Scarcity Pricing shall be implemented.
- (3) The Transmission Provider may implement sharing of ramping capability between Energy and Operating Reserve product clearing to ensure, to the extent possible, that short-term ramping deficiencies from hour to hour do not initiate Scarcity Pricing as described in Section 8.3.4.2(2) of this Attachment AE. To the extent that ramp sharing is implemented, it shall remain in effect in all hours of the Day-Ahead Market, in order to clear sufficient amounts of Energy, Regulation-Up Service, Regulation-Down Service and Spinning Reserve to meet the requirements. The Transmission Provider will not implement ramp sharing that will result in the inability to meet applicable NERC reliability standards and control performance requirements.
- (4) If a transmission constraint cannot be relieved due to a shortage of capacity in any hour, the SCED algorithm will clear the bid-in demands on a pro-rata basis based upon the impact on relieving the constraint.

5.1.2.2 Clearing During Excess Generation Conditions

In the event the sum of the Minimum Emergency Capacity Operating Limits on self-committed Resources plus the Regulation-Down requirement is in excess of the cleared bid-in demands in any hour, the SCED algorithm will reduce Resources on a pro-rata reduction basis such that the resulting sum of minimum limits matches the bid-in demand. LMPs will be set by the Offer prices associated with Energy down to the Minimum Emergency Capacity Operating Limit to the extent that the Regulation-Down requirement can be maintained. If the actions under Section 5.1.2(1)(a)(ii) above create a Regulation-Down Service shortage during any hour either on a system-wide basis or Reserve Zone basis, the MCPs for Regulation-Down Service will reflect Scarcity Prices and LMPs will reflect negative Scarcity Prices as set by the Regulation-Down Service Demand Curve price described under Section 8.3.4.2 of this Attachment AE.

5.1.2 Day-Ahead Market Execution

The Transmission Provider will employ a simultaneous co-optimization methodology to perform the following tasks in order to clear the Day-Ahead Market for each hour of the upcoming Operating Day:

- (1) Commit Offered Resources, Import Interchange Transaction Offers and Virtual Energy Offers using the SCUC algorithm to meet the Demand Bids, Virtual Energy Bids, Export Interchange Transactions Bids, Head-room requirements, Floor-room requirements, and Operating Reserve requirements on a least cost basis for each hour of the upcoming Operating Day.
 - (a) The Day-Ahead Market SCUC algorithm will initially consider commitment of Resources not specified for reliability only use as described in Section 4.1(10)(c) of this Attachment AE, including Resources committed in the Multi-Day Reliability Assessment, up to the Resources' Maximum Economic Capacity Operating Limit or Maximum Regulation Capacity Operating Limit if selected for Regulation-Up Service and/or Regulation-Down Service, and down to the Resources' Minimum Economic Capacity Operating Limit or Minimum Regulation Capacity Operating Limit if selected for Regulation-Down Service and/or Regulation-Up Service.
 - (i) If this capacity is not sufficient to meet the fixed Demand Bids and fixed Export Interchange Transaction Bids, Head-room requirements, and Operating Reserve requirements on a system-wide basis, the Day-Ahead Market SCUC algorithm will, in priority order: (1) curtail non-firm fixed Export Interchange Transaction Bids until the capacity shortage is eliminated; and (2) incorporate capacity up to Resources' Maximum Emergency Capacity Operating Limits and/or commit Resources designated as reliability only use, as described in Section 4.1(10)(c) of this Attachment AE, on an economic basis until the capacity shortage is eliminated while attempting to maintain the Regulation-Up requirement to the extent possible .

- (ii) If there is a capacity surplus on a system-wide basis calculated as the sum of self-committed capacity at minimum output, fixed Import Interchange Transaction Offers, Floor-room requirement, and the Regulation-Down requirement that is in excess of the sum of fixed Demand Bids and fixed Export Interchange Transaction Bids, the Day-Ahead Market SCUC algorithm will, in priority order: (1) curtail non-firm fixed Import Interchange Transaction Offers until the capacity surplus is eliminated; and (2) incorporate capacity down to Resources' Minimum Emergency Capacity Operating Limits until the capacity surplus is eliminated while attempting to maintain the Regulation-Down requirement.
- (b) To the extent that a particular *security constraint impacting only the Transmission System* cannot be directly addressed within the Day-Ahead Market SCUC algorithm *and is not a Local Reliability Issue*, the Transmission Provider may manually commit Resources *and/or decommit Resources, including self-committed Resources to alleviate such a Transmission System security constraint in accordance with its authority as Reliability Coordinator. Such manual commitments shall be selected by the Transmission Provider in a non-discriminatory manner, which will be verified by the Market Monitor through the process described under Section 6.1.2.1 of this Attachment AE. Additionally, such manual commitments shall be selected by the Transmission Provider to ensure that commitment costs are minimized while adhering to Transmission System security constraints and the Resource operating parameter constraints submitted as part of the Day-Ahead Market Offers. The recovery of the compensation paid by the Transmission Provider for such committed Resources under Section 8.5.9 of this Attachment AE shall be collected by the Transmission Provider regionally as described under Section 8.5.10 of this Attachment AE.*
- (c) *A Local Reliability Issue or Local Emergency Condition may need to be addressed during the Day-Ahead Market process. Local Reliability*

Issues, either initially recognized directly as part of the Day-Ahead Market process or previously recognized and committed as part of any Reliability Unit Commitment process, may require out of merit commitment or decommitment to one or more Resources in the Day-Ahead Market to recognize or continue to recognize the Local Reliability Issue. A Local Emergency Condition previously recognized and committed as part of any Reliability Unit Commitment process may require out of merit commitment or decommitment to one or more Resources in the Day-Ahead Market to continue to recognize the Local Emergency Condition. In the case where a Local Reliability Issue Commitment is initiated directly as part of the Day-Ahead Market process, the Transmission Provider shall issue or the local transmission operator shall request the Transmission Provider to issue such instructions and any commitment by the Transmission Provider shall be selected by the Transmission Provider in a non-discriminatory manner, which will be verified by the Market Monitor through the process described under Section 6.1.2.1 of this Attachment AE. To the extent that the Transmission Provider, at the request of a local transmission operator, initially issues or continues to issue instructions to a Resource to address a Local Reliability Issue or continues to issue instructions to a Resource to address a Local Emergency Condition, such Resource shall be eligible for compensation in the same manner as any other Resource. The recovery of the compensation paid by the Transmission Provider for such committed Resources under Section 8.5.9 of this Attachment AE shall be collected by the Transmission Provider locally as described under Section 8.6.7(B) of this Attachment AE.

- (d) The Transmission Provider, local transmission operator, and Resource owners shall develop operating guides to be applied to manual commitments made by the Transmission Provider, including such commitments made at the request of the local transmission operator to relieve known and recurring Local Reliability Issues in the Day-Ahead Market. Such Resources will be compensated in the same manner as any*

other Resource. The recovery of such compensation paid by the Transmission Provider for such committed Resources under Section 8.5.9 of this Attachment AE shall be collected by the Transmission Provider locally as described under Section 8.6.7(B) of this Attachment AE.

(e) The Transmission Provider will re-run the Day-Ahead SCUC algorithm after any manual commitments, time permitting, if such manual commitments were not included in the initial run and will notify the Market Participants that units were manually committed.

(2) Using the Resource commitment results from the SCUC, clear Resource Offers, Virtual Energy Offers and Import Interchange Transaction Offers to meet Demand Bids, Virtual Energy Bids, Export Interchange Transaction Bids and Operating Reserve requirements on a least cost basis for each hour of the upcoming Operating Day using the SCED algorithm.

(a) The SCED algorithm includes marginal loss sensitivity factors that approximate the change in marginal system losses for a change in Energy dispatch.

(b) In certain situations, enforcing constraints may result in a solution that is not feasible at a Shadow Price less than an appropriately priced VRL. In such cases, the Transmission Provider must apply VRLs in SCED as described in Section 8.3.2 of this Attachment AE.

(c) The SCED algorithm will include product substitution logic as follows to clear Operating Reserve Offers:

(i) Any Regulation-Up Offers remaining once the Regulation-Up Requirement is satisfied may be used to meet Contingency Reserve requirements if Regulation-Up Offer is more economic or is required to meet the overall Operating Reserve requirement;

(ii) Any Spinning Reserve Offers remaining once the Spinning Reserve Requirement is satisfied may be used to meet Supplemental Reserve requirements if Spinning Reserve Offer is more economic or is required to meet the overall Operating Reserve requirement; and

- (iii) The product substitution logic ensures that the MCP for Regulation-Up is always greater than or equal to the Spinning Reserve MCP and that the Spinning Reserve MCP is always greater than or equal to the Supplemental Reserve MCP.
- (d) Use of co-optimization logic will provide, through the Shadow Price calculation, MCPs for Operating Reserve that include any lost opportunity costs incurred as a result of Operating Reserve clearing.

5.1.2.1 Clearing During Capacity Shortage

- (1) In the event of an Operating Reserve shortage in any hour that is not due to ramp limitations, Scarcity Pricing shall be implemented.
- (2) In the event of a capacity shortage to meet the fixed Demand Bids and fixed firm Export Interchange Transactions in any hour, the fixed Demand Bids and fixed firm Export Interchange Transactions will be reduced on a pro-rata reduction basis based on the fixed MW amounts to match the available capacity and Scarcity Pricing shall be implemented.
- (3) The Transmission Provider may implement sharing of ramping capability between Energy and Operating Reserve product clearing to ensure, to the extent possible, that short-term ramping deficiencies from hour to hour do not initiate Scarcity Pricing as described in Section 8.3.4.2(2) of this Attachment AE. To the extent that ramp sharing is implemented, it shall remain in effect in all hours of the Day-Ahead Market, in order to clear sufficient amounts of Energy, Regulation-Up Service, Regulation-Down Service and Spinning Reserve to meet the requirements. The Transmission Provider will not implement ramp sharing that will result in the inability to meet applicable NERC reliability standards and control performance requirements.
- (4) If a transmission constraint cannot be relieved due to a shortage of capacity in any hour, the SCED algorithm will clear the bid-in demands on a pro-rata basis based upon the impact on relieving the constraint.

5.1.2.2 Clearing During Excess Generation Conditions

In the event the sum of the Minimum Emergency Capacity Operating Limits on self-committed Resources plus the Regulation-Down requirement is in excess of the cleared bid-in demands in any hour, the SCED algorithm will reduce Resources on a pro-rata reduction basis such that the resulting sum of minimum limits matches the bid-in demand. LMPs will be set by the Offer prices associated with Energy down to the Minimum Emergency Capacity Operating Limit to the extent that the Regulation-Down requirement can be maintained. If the actions under Section 5.1.2(1)(a)(ii) above create a Regulation-Down Service shortage during any hour either on a system-wide basis or Reserve Zone basis, the MCPs for Regulation-Down Service will reflect Scarcity Prices and LMPs will reflect negative Scarcity Prices as set by the Regulation-Down Service Demand Curve price described under Section 8.3.4.2 of this Attachment AE.