

April 19, 2013

VIA ELECTRONIC FILING

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. ER12-1179-005
Compliance Filing of Southwest Power Pool, Inc.

Dear Secretary Bose:

Pursuant to the Federal Energy Regulatory Commission's ("Commission") "Order On Rehearing and Clarification," issued on March 21, 2013 in this docket,¹ Southwest Power Pool, Inc. ("SPP") submits revisions to its Open Access Transmission Tariff ("Tariff")² in compliance with the March 21 Order. SPP requests an effective date of March 1, 2014 for the Tariff revisions submitted with this filing.

I. BACKGROUND

On February 29, 2012,³ as amended on May 15, 2012,⁴ SPP submitted to the Commission proposed revisions to its Tariff to transition from its current Real-Time Energy Imbalance Service ("EIS") Market to the SPP Integrated Marketplace in March 2014. As proposed, the Integrated Marketplace includes Day-Ahead and Real-Time Energy and Operating Reserve Markets and a Transmission Congestion Rights ("TCR") Market aimed at maximizing the cost-effective utilization of energy Resources and the regional transmission system. In addition, SPP proposed formation of a new SPP Balancing Authority to consolidate and assume the responsibilities of the sixteen (16) separate Balancing Authority Areas currently

¹ *Sw. Power Pool, Inc.*, 142 FERC ¶ 61,205 (2013) ("March 21 Order").

² Southwest Power Pool, Inc., FERC Electric Tariff, Sixth Revised Volume No. 1.

³ Submission of Tariff Revisions to Implement SPP Integrated Marketplace of Southwest Power Pool, Inc., Docket No. ER12-1179-000 (Feb. 29, 2012) ("Integrated Marketplace Filing").

⁴ Amendatory Filing of Tariff Revisions to Implement SPP Integrated Marketplace of Southwest Power Pool, Inc., Docket No. ER12-1179-001 (May 15, 2012).

operating within the SPP footprint, and market monitoring and mitigation with an internal market monitor. SPP requested a March 1, 2014 effective date for the implementation of the Integrated Marketplace.

On October 18, 2012, the Commission issued its “Order Conditionally Accepting Tariff Revisions To Establish Energy Markets” which conditionally approved SPP’s Integrated Marketplace and related Tariff revisions, subject to modification of several market design components and directed SPP to submit numerous revisions to its Tariff to “ensure that a well-designed market will be in place at the proposed effective date [of March 1, 2014].”⁵ In addition, the October 18 Order established various negotiating, reporting, and post-market assessment requirements. Consistent with the Commission’s requirements in the October 18 Order, SPP submitted a compliance filing on February 15, 2013,⁶ which SPP supplemented on March 1, 2013.⁷

The Commission issued its “Order on Rehearing and Clarification” on March 21, 2013 to address all requests for clarification and/or rehearing of the October 18 Order.⁸ The March 21 Order clarified that the Commission’s directive in the October 18 Order requiring that the SPP Market Monitor report on any potential manipulative practices observed in the day-ahead market included the duty to monitor for, and report, excessive day-ahead pricing.⁹ The March 21 Order also recognized SPP’s ongoing effort to refine a comprehensive mitigation proposal for Integrated Marketplace’s Day-Ahead and Real-Time Balancing Markets requirements.¹⁰ To remove any ambiguity regarding the Commission’s expectations, the March 21 Order required SPP to submit a compliance filing to revise section 4.4 of Attachment AG of the Tariff to include additional language provided by the Commission.¹¹

⁵ See *Sw. Power Pool, Inc.*, 141 FERC ¶ 61,048 at P 2 (2012) (“October 18 Order”).

⁶ Submission of Tariff Revisions to Implement SPP Integrated Marketplace by Southwest Power Pool, Inc., Docket No. ER12-1179-003 (Feb. 15, 2013) (“February 15 Compliance Filing”).

⁷ Supplemental Representation in Compliance with Commission Order Concerning SPP Integrated Marketplace by Southwest Power Pool, Inc., Docket No. ER12-1179-003 (Mar. 1, 2013).

⁸ See March 21 Order at P 1.

⁹ See *id.* at P 15.

¹⁰ See *id.* at P 16.

¹¹ See *id.* at P 15.

II. DESCRIPTION OF COMPLIANCE FILING

The Tariff's Attachment AG, Section 4 provides for market monitoring of the Integrated Marketplace and provides a mechanism to allow the SPP Market Monitor (as defined in the Integrated Marketplace Tariff) to monitor and report manipulative practices, amongst other locational and pricing issues, to the Commission's Office of Enforcement. Section 4.4 of Attachment AG deals specifically with monitoring for potential manipulation of the Integrated Marketplace. The additional language required by the Commission clarifies that actions resulting in excessive day-ahead clearing prices are considered actions or transactions that are without a legitimate business purpose and thereby prohibited under this section. Pursuant to the March 21 Order, SPP submits the following revisions (see underline) to Section 4.4 of Attachment AG in compliance:

4.4 Monitoring for Potential Integrated Marketplace Manipulation

The Market Monitor will monitor for potential instances of market manipulation in the Integrated Marketplace. Such actions or transactions that are without a legitimate business purpose and that are intended to or foreseeably could manipulate market prices (including actions resulting in excessive day-ahead clearing prices), market conditions, or market rules for electric energy or electric products are prohibited. As listed by the FERC, prohibited behavior includes (a) wash trades, (b) submission of false data, (c) actions to cause artificial congestion and (d) collusive acts. The Market Monitor will report any market manipulation in the Integrated Marketplace in a timely manner. (emphasis added)

III. EFFECTIVE DATE AND REQUEST FOR WAIVER

SPP requests an effective date of March 1, 2014 for the Tariff revisions proposed in this filing, consistent with the effective date granted by the Commission in the October 18 Order and requested by SPP in the February 15 Compliance Filing. To the extent necessary, SPP requests waiver of the Commission's notice requirements¹² to allow SPP to submit these Tariff revisions more than 120 days prior to the requested effective date.

IV. ADDITIONAL INFORMATION

A. Documents Submitted with this Filing:

In addition to this transmittal letter, the following documents are included with this filing:

Clean and Redline Integrated Marketplace Tariff revisions under the Sixth Revised Volume No. 1¹³

B. Service:

SPP has electronically served a copy of this filing on all its Members and Customers. A complete copy of this filing will be posted on the SPP web site, www.spp.org, and is also being served on all affected state commissions. SPP also has served a copy of this filing on all parties on the service list established by the Secretary of the Commission in this proceeding.

¹² 18 C.F.R. § 35.3 (2012).

¹³ The revisions to the Integrated Marketplace Tariff filed herein consist of language filed by SPP in the Integrated Marketplace Filing and the February 15 Compliance Filing. Italicized language contained in the materials for this filing, represent language filed in the February 15 Compliance Filing, which is before the Commission but not yet approved.

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V. CONCLUSION

SPP respectfully requests that the Commission accept the filing in compliance with requirements of the March 21 Order as detailed herein.

Respectfully submitted,

/s/ Matthew Harward

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cc: Penny Murrell
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Laura Vallance

CERTIFICATE OF SERVICE

I hereby certify that I have served this day copies of the foregoing on the official service list compiled by the Office of the Secretary in accordance with Rule 2010 of the Commission Rules of Practice and Procedure.

Dated at Little Rock this 19th day of April, 2013.

/s/ Matthew S. Harward
Matthew Harward

Attorney for
Southwest Power Pool, Inc.

4. Market Monitoring

4.1 Markets to be Monitored

The Market Monitor will monitor Markets and Services. The Market Monitor will not monitor bilateral energy, transmission or capacity markets and services not administered, coordinated or facilitated by SPP, except to assess the effect of these markets and services on Markets and Services, or the effects of Markets and Services on these unmonitored markets. Similarly, the Market Monitor will not monitor the energy, transmission or capacity markets and services in regions adjacent to the SPP Region except to assess the effect of these markets and services on Markets and Services, or the effects of Markets and Services on these adjacent markets.

4.2 Market Monitoring Scope

The Market Monitor will implement the Plan. The markets will require continuous monitoring by the Market Monitor. The Market Monitor will monitor Markets and Services by reviewing and analyzing market data and information including, but not limited to:

- (a) Resource registration data;
- (b) Resource Offer data including non-price related offer parameters required for use in either the Day-Ahead Market, Reliability Unit Commitment process and/or Real-Time Balancing Market;
- (c) Demand Bids for the purchase of Energy in the Day-Ahead Market;
- (d) Virtual Energy Bids for the purchase of Energy in the Day-Ahead Market and Virtual Energy Offers for the sale of Energy in the Day-Ahead Energy Market;
- (e) Export Interchange Transaction Bids and Import Interchange Transaction Offers for the purchase and sale of Energy in the Day-Ahead Market and the Real-Time Balancing Market;

- (f) Actual commitment and dispatch of Resources, including but not limited to Resource MW capability and output, MVAR capability and output, status, and outages;
- (g) Locational Marginal Prices and zonal Market Clearing Prices at all Settlement Locations in or affecting any of Markets and Services;
- (h) SPP Balancing Authority Area data, including but not limited to demand, area control error, Net Scheduled Interchange, actual total net interchange, and forecasts of operating reserves and peak demand;
- (i) Conditions or events both inside and outside the SPP Balancing Authority Area affecting the supply and demand for, and the quantity and price of, products or services sold or to be sold in Markets and Services;
- (j) Information regarding transmission services and rights, including the estimating and posting of Available Transfer Capability (“ATC”) or Available Flowgate Capability (“AFC”), administration of this Tariff, the operation and maintenance of the transmission system, any auctions or other markets for transmission rights, and the reservation and scheduling of transmission service;
- (k) Information regarding the nature and extent of transmission congestion in the region and, to the extent practicable, transmission congestion on any other system that affects Markets and Services, including but not limited to causes of, costs of and charges for transmission congestion, transmission facility loading, MVA capability, line status and outages;
- (l) Settlement data for the Markets and Services;
- (m) Any information regarding collusive or other anticompetitive or inefficient behavior in or affecting any of Markets and Services; and
- (n) Generation resource operating cost data for estimating resource incremental cost, including fuel input costs, heat rates where applicable, start-up fuel requirements, environmental costs and variable operating and maintenance expenses.

- (o) *Logs of transmission service requests and Generation Interconnection Requests along with the disposition of each request and the explanation of any refused requests: and*
- (p) *Any additional Resource and transmission facility outage data not otherwise provided for in this Section 4.2.*

4.2.1 Additional Market Monitor Duties

- (a) In addition to the monitoring of market Data and Information, the Market Monitor may communicate with SPP Staff and Market Participants at any time for the purpose of monitoring and assessing market conditions.
- (b) The Market Monitor shall evaluate the effectiveness of Markets and Services in signaling the need for investment in new generation, transmission or demand response infrastructure and report on its findings at least annually.

4.3 Referrals to the Commission

- (a) The Market Monitor shall report suspected market violations, as defined in 18 CFR 35.28(b)(8), to FERC's Office of Enforcement (or its successor organization) staff in accordance with the FERC's reporting protocols for referrals by market monitors as specified in 18 C.F.R. § 35.28(g)(3)(iv) in a timely manner. Any such reports by the Market Monitor to FERC Staff shall be on a confidential basis, and all information and documents included in such reports will not be released to any other party except to the extent FERC directs or authorizes such release, unless such information and documents are already in the public domain.

4.4 Monitoring for Potential Integrated Marketplace Manipulation

The Market Monitor will monitor for potential instances of market manipulation in the Integrated Marketplace. Such actions or transactions that are without a legitimate business purpose and that are intended to or foreseeably could manipulate market prices (including actions resulting in excessive day-ahead clearing prices), market conditions, or market rules for electric energy or electric

products are prohibited. As listed by the FERC, prohibited behavior includes (a) wash trades, (b) submission of false data, (c) actions to cause artificial congestion and (d) collusive acts. The Market Monitor will report any market manipulation in the Integrated Marketplace in a timely manner.

4.5 Monitoring for Potential Transmission Market Power Activities

The Market Monitor shall monitor Markets and Services for *the exercise* transmission market power activities by reviewing and analyzing data and information related to the availability of transmission facilities that impact access to services under this Tariff. The Market Monitor will monitor for activities particularly with respect to the withholding of transmission facilities or transmission capacity, including activities such as but not limited to, the following:

- (a) Physical withholding by Transmission Owners by providing improper information related to the availability of transmission, such as information related to the capability or other modeling data used by SPP for use in system operations;
- (b) Economic withholding by Transmission Owners through the use of methods and data for estimating costs of interconnection and system upgrades that is not comparable for affiliates and non-affiliates;
- (c) Unavailability of transmission facilities through planned and unplanned maintenance outages that routinely exceed historical baselines; and
- (d) Withholding of transmission capacity through excess reservations that are not actually used.

The Market Monitor shall refer *any perceived market design flaws and recommended Tariff language changes and any instance(s) of the suspected exercise of transmission market power* directly to *the Commission's Office of Enforcement (or its successor organization)* utilizing the protocols for referrals to the Commission for suspected *instances of the exercise of market power that may be part of a suspected market violation, such as manipulation, in accordance with* 18 C.F.R. § 35.28(g)(3)(iv). Where appropriate, the Market Monitor shall also

provide the FERC with an estimate of damages equal to (i) the effect on prices multiplied by (ii) the affected energy produced by the Transmission/Generation Owner. The Market Monitor may also request the FERC to impose additional sanctions and penalties, which may consist of a fixed dollar amount based on each instance, or an amount up to (i) the effect on prices multiplied by (ii) the affected energy produced by Market Participants other than the Transmission/Generation Owner. All such referrals by the Market Monitor to FERC will be on a confidential basis, and all information and documents included in such reports will not be released to any other party except to the extent FERC directs or authorizes such release.

4.6 Monitoring for Market Participant Behavior Possibly Warranting Mitigation

The Market Monitor shall monitor Markets and Services for potential abuse associated with the following categories of Market Participant behavior: (1) economic withholding; (2) uneconomic production; (3) physical withholding; and (4) uneconomic Virtual Bids and Virtual Offers. The mitigation measures for each of these behaviors are described in Attachment AF. When the Market Monitor determines that there is sufficient credible information about a specific abusive practice, the issue will be referred to *the Commission's Office of Enforcement (or its successor organization)*. *Nothing in this section shall limit the Market Monitor's obligation to refer other suspected market violations to the Commission's Office of Enforcement, even where suspected behavior does not fall explicitly within the abovementioned categories or descriptions.*

4.6.1 Uneconomic Production

The Market Monitor will monitor for cases where uneconomic production by a Resource causes congestion on transmission facilities or price separation between Reserve Zones that is not justified by reliability concerns. The specific steps are as follows:

- (a) Determine the MW impacts of Resource output on the transmission constraint or Reserve Zone from the following sources:
 - 1. Self committed Resources with uneconomic output (Resource incremental cost exceeds Resource LMP); and
 - 2. Transmission Provider committed Resources generating outside of their Operating Tolerance.
- (b) Determine that the MW impact from uneconomic production is exacerbating the transmission congestion or binding a Reserve Zone; and
- (c) Determine that the uneconomic production is not obviously justified by reliability or other operational concerns.

The Market Monitor will conduct evaluations as specified above and other related assessments to determine if there is sufficient credible information to justify referral to the Commission.

4.6.2 Monitoring for Virtual Energy Bids and Virtual Energy Offers

The Market Monitor will monitor the level of divergence between the Day-Ahead Market LMPs and the Real-Time Balancing Market LMPs. Section 4.6.3 defines the monitoring metric and thresholds to be used in determining the existence of excessive LMP divergence. In the case that there is excessive LMP divergence, the Market Monitor will determine if the LMP divergence is attributable to the Virtual Energy Bid and Virtual Energy Offer behavior of one or more Market Participants. If the Market Monitor identifies one or more Market Participants as having caused the excessive LMP divergence through Virtual Energy Bid and Virtual Energy Offer behavior, then the Transmission Provider shall impose mitigation measures described in Section 4.0 of Attachment AF.

4.6.3 Metric and Threshold Specifications

The Market Monitor will compute the hourly LMP deviation between the Day-Ahead Market and Real-Time Balancing Market using the following formula: $[(LMP_{RTBM} / LMP_{DA\ Market}) - 1] * 100$. The average hourly LMP deviation is computed over a rolling four (4) week period or any other period that the Market Monitor determines is appropriate. If the four (4) week rolling average is below negative ten percent (-10%) or in excess of ten percent (10%), then the divergence is considered excessive and additional analysis is required.

4.6.4 Physical Withholding

The Market Monitor will monitor *for physical withholding of capacity from the Energy and Operating Reserve Markets, and unavailability of facilities. Physical withholding and unavailability of facilities may include:*

- (a) *Declaring that a Resource has been derated, forced out of service or otherwise been made unavailable for technical reasons that are untrue or that cannot be verified;*
- (b) *Refusing to provide offers or schedules for a Resource when it would otherwise have been in the economic interest to do so without market power;*
- (c) *Operating a Resource in real-time to produce an output level that is less than the dispatch instruction;*
- (d) *Derating a transmission facility for technical reasons that are not true or verifiable;*
- (e) *Operating a transmission facility in a manner that is not economic and that causes a binding transmission constraint or binding reserve zone or local reliability issue; and*
- (f) *Declaring that the capability of Resources to provide Energy or Operating Reserves is reduced for reasons that are not true or verifiable.*

Market Participants will not be deemed to be physically withholding if they are following the directions of the SPP Balancing Authority, Reliability Coordinator, or applicable reliability standards. In addition, Market Participants will not be determined to have physically withheld if they are selling into another market at a higher price.

4.6.4.1 Thresholds for Identifying Physical Withholding of Resource Capacity

4.6.4.1.1 A Market Participant is deemed to be physically withholding capacity in a Frequently Constrained Area if all of the following conditions exist:

- (a) One or more of the transmission constraints or Reserve Zone constraints that define the Frequently Constrained Area are binding;*
- (b) The Market Participant controls or owns a Resource located in the Frequently Constrained Area that satisfies condition 4.6.4(a), 4.6.4 (b), 4.6.4(c), or 4.6.4(f) of this Attachment AG; and*
- (c) The Market Monitor determines that the withheld capacity has impacts on prices or make whole payments that exceed the Market Impact Test thresholds in Attachment AF, Section 3.7 of this Tariff.*

4.6.4.1.2 A Market Participant is deemed to be physically withholding capacity in an area not designated as a Frequently Constrained Area if all of the following conditions exist:

- (a) One or more transmission constraints are binding or a Reserve Zone is binding;*
- (b) The Market Participant owns or controls one or more Resources that has local market power as defined in Attachment AF, Section 3.1 of this Tariff;*

- (c) *The Resource(s) identified in Section 4.6.4.1.2(b) of this Attachment AG meets either of the following criteria (1) or (2);*
 - (1) *Such Resource(s) satisfy one of the conditions in Sections 4.6.4(a), 4.6.4(b), or 4.6.4(f) of this Attachment AG and the total withheld capacity exceeds the lower of 5 percent of the total capability owned or controlled by the Market Participant or 200 MW; or*
 - (2) *Where the real-time output of each such Resource is less than the Resource's Operating Tolerance defined in Attachment AE, Section 6.4.1 of this Tariff and the Resource is not exempt from Uninstructed Resource Deviation under Attachment AE, Section 6.4.1.1 of this Tariff; and*
- (d) *The Market Monitor determines that the withheld capacity has impacts on prices or make whole payments that exceed the Market Impact Test thresholds in Attachment AF, Section 3.7 of this Tariff.*

4.6.4.2 Thresholds for Screening of Potential Physical Withholding of Transmission Facilities

A transmission facility fails the physical withholding screen if all of the following conditions are met:

- (a) *One or more transmission constraints are binding, a Reserve Zone is binding, or a Local Reliability Issue is active;*
- (b) *The transmission facility satisfies a condition in Section 4.6.4(d) or 4.6.4(e) of this Attachment AG*

and has been determined to have contributed to the constraints, congestion or Local Reliability Issues as described in Section 4.6.4.2(a) of this Attachment AG;

- (c) One or more Resources owned or controlled by a Market Participant that is affiliated with the Transmission Owner satisfies the local market power test as specified in Attachment AF, Section 3.1 of this Tariff; and*
- (d) The Market Monitor determines that the operation of the transmission facility as identified per Sections 4.6.4(d) or 4.6.4(e) of this Attachment AG has an impact on prices or make whole payments that exceed the Market Impact Test thresholds in Attachment AF, Section 3.7 of this Tariff.*

4.6.4.3 Sanctions

The Market Monitor will record instances where Market Participants have failed the screens in Sections 4.6.4.1 and 4.6.4.2 of this Attachment AG and notify the Commission's Office of Enforcement, or successor organization, of such behavior. In the event the Market Monitor determines there is credible evidence of a market violation, the Market Monitor shall make a referral to the Commission as described in Section 4.3 of this Attachment AG.

4. Market Monitoring

4.1 Markets to be Monitored

The Market Monitor will monitor Markets and Services. The Market Monitor will not monitor bilateral energy, transmission or capacity markets and services not administered, coordinated or facilitated by SPP, except to assess the effect of these markets and services on Markets and Services, or the effects of Markets and Services on these unmonitored markets. Similarly, the Market Monitor will not monitor the energy, transmission or capacity markets and services in regions adjacent to the SPP Region except to assess the effect of these markets and services on Markets and Services, or the effects of Markets and Services on these adjacent markets.

4.2 Market Monitoring Scope

The Market Monitor will implement the Plan. The markets will require continuous monitoring by the Market Monitor. The Market Monitor will monitor Markets and Services by reviewing and analyzing market data and information including, but not limited to:

- (a) Resource registration data;
- (b) Resource Offer data including non-price related offer parameters required for use in either the Day-Ahead Market, Reliability Unit Commitment process and/or Real-Time Balancing Market;
- (c) Demand Bids for the purchase of Energy in the Day-Ahead Market;
- (d) Virtual Energy Bids for the purchase of Energy in the Day-Ahead Market and Virtual Energy Offers for the sale of Energy in the Day-Ahead Energy Market;
- (e) Export Interchange Transaction Bids and Import Interchange Transaction Offers for the purchase and sale of Energy in the Day-Ahead Market and the Real-Time Balancing Market;

- (f) Actual commitment and dispatch of Resources, including but not limited to Resource MW capability and output, MVAR capability and output, status, and outages;
- (g) Locational Marginal Prices and zonal Market Clearing Prices at all Settlement Locations in or affecting any of Markets and Services;
- (h) SPP Balancing Authority Area data, including but not limited to demand, area control error, Net Scheduled Interchange, actual total net interchange, and forecasts of operating reserves and peak demand;
- (i) Conditions or events both inside and outside the SPP Balancing Authority Area affecting the supply and demand for, and the quantity and price of, products or services sold or to be sold in Markets and Services;
- (j) Information regarding transmission services and rights, including the estimating and posting of Available Transfer Capability (“ATC”) or Available Flowgate Capability (“AFC”), administration of this Tariff, the operation and maintenance of the transmission system, any auctions or other markets for transmission rights, and the reservation and scheduling of transmission service;
- (k) Information regarding the nature and extent of transmission congestion in the region and, to the extent practicable, transmission congestion on any other system that affects Markets and Services, including but not limited to causes of, costs of and charges for transmission congestion, transmission facility loading, MVA capability, line status and outages;
- (l) Settlement data for the Markets and Services;
- (m) Any information regarding collusive or other anticompetitive or inefficient behavior in or affecting any of Markets and Services; and
- (n) Generation resource operating cost data for estimating resource incremental cost, including fuel input costs, heat rates where applicable, start-up fuel requirements, environmental costs and variable operating and maintenance expenses.

- (o) *Logs of transmission service requests and Generation Interconnection Requests along with the disposition of each request and the explanation of any refused requests: and*
- (p) *Any additional Resource and transmission facility outage data not otherwise provided for in this Section 4.2.*

4.2.1 Additional Market Monitor Duties

- (a) In addition to the monitoring of market Data and Information, the Market Monitor may communicate with SPP Staff and Market Participants at any time for the purpose of monitoring and assessing market conditions.
- (b) The Market Monitor shall evaluate the effectiveness of Markets and Services in signaling the need for investment in new generation, transmission or demand response infrastructure and report on its findings at least annually.

4.3 Referrals to the Commission

- (a) The Market Monitor shall report suspected market violations, as defined in 18 CFR 35.28(b)(8), to FERC's Office of Enforcement (or its successor organization) staff in accordance with the FERC's reporting protocols for referrals by market monitors as specified in 18 C.F.R. § 35.28(g)(3)(iv) in a timely manner. Any such reports by the Market Monitor to FERC Staff shall be on a confidential basis, and all information and documents included in such reports will not be released to any other party except to the extent FERC directs or authorizes such release, unless such information and documents are already in the public domain.

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The Market Monitor will monitor for potential instances of market manipulation in the Integrated Marketplace. Such actions or transactions that are without a legitimate business purpose and that are intended to or foreseeably could manipulate market prices (including actions resulting in excessive day-ahead clearing prices), market conditions, or market rules for electric energy or electric

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- (a) Physical withholding by Transmission Owners by providing improper information related to the availability of transmission, such as information related to the capability or other modeling data used by SPP for use in system operations;
- (b) Economic withholding by Transmission Owners through the use of methods and data for estimating costs of interconnection and system upgrades that is not comparable for affiliates and non-affiliates;
- (c) Unavailability of transmission facilities through planned and unplanned maintenance outages that routinely exceed historical baselines; and
- (d) Withholding of transmission capacity through excess reservations that are not actually used.

The Market Monitor shall refer *any perceived market design flaws and recommended Tariff language changes and any instance(s) of the suspected exercise of transmission market power* directly to *the Commission's Office of Enforcement (or its successor organization)* utilizing the protocols for referrals to the Commission for suspected *instances of the exercise of market power that may be part of a suspected market violation, such as manipulation, in accordance with* 18 C.F.R. § 35.28(g)(3)(iv). Where appropriate, the Market Monitor shall also

provide the FERC with an estimate of damages equal to (i) the effect on prices multiplied by (ii) the affected energy produced by the Transmission/Generation Owner. The Market Monitor may also request the FERC to impose additional sanctions and penalties, which may consist of a fixed dollar amount based on each instance, or an amount up to (i) the effect on prices multiplied by (ii) the affected energy produced by Market Participants other than the Transmission/Generation Owner. All such referrals by the Market Monitor to FERC will be on a confidential basis, and all information and documents included in such reports will not be released to any other party except to the extent FERC directs or authorizes such release.

4.6 Monitoring for Market Participant Behavior Possibly Warranting Mitigation

The Market Monitor shall monitor Markets and Services for potential abuse associated with the following categories of Market Participant behavior: (1) economic withholding; (2) uneconomic production; (3) physical withholding; and (4) uneconomic Virtual Bids and Virtual Offers. The mitigation measures for each of these behaviors are described in Attachment AF. When the Market Monitor determines that there is sufficient credible information about a specific abusive practice, the issue will be referred to *the Commission's Office of Enforcement (or its successor organization)*. *Nothing in this section shall limit the Market Monitor's obligation to refer other suspected market violations to the Commission's Office of Enforcement, even where suspected behavior does not fall explicitly within the abovementioned categories or descriptions.*

4.6.1 Uneconomic Production

The Market Monitor will monitor for cases where uneconomic production by a Resource causes congestion on transmission facilities or price separation between Reserve Zones that is not justified by reliability concerns. The specific steps are as follows:

- (a) Determine the MW impacts of Resource output on the transmission constraint or Reserve Zone from the following sources:
 - 1. Self committed Resources with uneconomic output (Resource incremental cost exceeds Resource LMP); and
 - 2. Transmission Provider committed Resources generating outside of their Operating Tolerance.
- (b) Determine that the MW impact from uneconomic production is exacerbating the transmission congestion or binding a Reserve Zone; and
- (c) Determine that the uneconomic production is not obviously justified by reliability or other operational concerns.

The Market Monitor will conduct evaluations as specified above and other related assessments to determine if there is sufficient credible information to justify referral to the Commission.

4.6.2 Monitoring for Virtual Energy Bids and Virtual Energy Offers

The Market Monitor will monitor the level of divergence between the Day-Ahead Market LMPs and the Real-Time Balancing Market LMPs. Section 4.6.3 defines the monitoring metric and thresholds to be used in determining the existence of excessive LMP divergence. In the case that there is excessive LMP divergence, the Market Monitor will determine if the LMP divergence is attributable to the Virtual Energy Bid and Virtual Energy Offer behavior of one or more Market Participants. If the Market Monitor identifies one or more Market Participants as having caused the excessive LMP divergence through Virtual Energy Bid and Virtual Energy Offer behavior, then the Transmission Provider shall impose mitigation measures described in Section 4.0 of Attachment AF.

4.6.3 Metric and Threshold Specifications

The Market Monitor will compute the hourly LMP deviation between the Day-Ahead Market and Real-Time Balancing Market using the following formula: $[(LMP_{RTBM} / LMP_{DA\ Market}) - 1] * 100$. The average hourly LMP deviation is computed over a rolling four (4) week period or any other period that the Market Monitor determines is appropriate. If the four (4) week rolling average is below negative ten percent (-10%) or in excess of ten percent (10%), then the divergence is considered excessive and additional analysis is required.

4.6.4 Physical Withholding

The Market Monitor will monitor *for physical withholding of capacity from the Energy and Operating Reserve Markets, and unavailability of facilities. Physical withholding and unavailability of facilities may include:*

- (a) *Declaring that a Resource has been derated, forced out of service or otherwise been made unavailable for technical reasons that are untrue or that cannot be verified;*
- (b) *Refusing to provide offers or schedules for a Resource when it would otherwise have been in the economic interest to do so without market power;*
- (c) *Operating a Resource in real-time to produce an output level that is less than the dispatch instruction;*
- (d) *Derating a transmission facility for technical reasons that are not true or verifiable;*
- (e) *Operating a transmission facility in a manner that is not economic and that causes a binding transmission constraint or binding reserve zone or local reliability issue; and*
- (f) *Declaring that the capability of Resources to provide Energy or Operating Reserves is reduced for reasons that are not true or verifiable.*

Market Participants will not be deemed to be physically withholding if they are following the directions of the SPP Balancing Authority, Reliability Coordinator, or applicable reliability standards. In addition, Market Participants will not be determined to have physically withheld if they are selling into another market at a higher price.

4.6.4.1 Thresholds for Identifying Physical Withholding of Resource Capacity

4.6.4.1.1 A Market Participant is deemed to be physically withholding capacity in a Frequently Constrained Area if all of the following conditions exist:

- (a) One or more of the transmission constraints or Reserve Zone constraints that define the Frequently Constrained Area are binding;*
- (b) The Market Participant controls or owns a Resource located in the Frequently Constrained Area that satisfies condition 4.6.4(a), 4.6.4 (b), 4.6.4(c), or 4.6.4(f) of this Attachment AG; and*
- (c) The Market Monitor determines that the withheld capacity has impacts on prices or make whole payments that exceed the Market Impact Test thresholds in Attachment AF, Section 3.7 of this Tariff.*

4.6.4.1.2 A Market Participant is deemed to be physically withholding capacity in an area not designated as a Frequently Constrained Area if all of the following conditions exist:

- (a) One or more transmission constraints are binding or a Reserve Zone is binding;*
- (b) The Market Participant owns or controls one or more Resources that has local market power as defined in Attachment AF, Section 3.1 of this Tariff;*

- (c) *The Resource(s) identified in Section 4.6.4.1.2(b) of this Attachment AG meets either of the following criteria (1) or (2);*
 - (1) *Such Resource(s) satisfy one of the conditions in Sections 4.6.4(a), 4.6.4(b), or 4.6.4(f) of this Attachment AG and the total withheld capacity exceeds the lower of 5 percent of the total capability owned or controlled by the Market Participant or 200 MW; or*
 - (2) *Where the real-time output of each such Resource is less than the Resource's Operating Tolerance defined in Attachment AE, Section 6.4.1 of this Tariff and the Resource is not exempt from Uninstructed Resource Deviation under Attachment AE, Section 6.4.1.1 of this Tariff; and*
- (d) *The Market Monitor determines that the withheld capacity has impacts on prices or make whole payments that exceed the Market Impact Test thresholds in Attachment AF, Section 3.7 of this Tariff.*

4.6.4.2 Thresholds for Screening of Potential Physical Withholding of Transmission Facilities

A transmission facility fails the physical withholding screen if all of the following conditions are met:

- (a) *One or more transmission constraints are binding, a Reserve Zone is binding, or a Local Reliability Issue is active;*
- (b) *The transmission facility satisfies a condition in Section 4.6.4(d) or 4.6.4(e) of this Attachment AG*

and has been determined to have contributed to the constraints, congestion or Local Reliability Issues as described in Section 4.6.4.2(a) of this Attachment AG;

- (c) One or more Resources owned or controlled by a Market Participant that is affiliated with the Transmission Owner satisfies the local market power test as specified in Attachment AF, Section 3.1 of this Tariff; and*
- (d) The Market Monitor determines that the operation of the transmission facility as identified per Sections 4.6.4(d) or 4.6.4(e) of this Attachment AG has an impact on prices or make whole payments that exceed the Market Impact Test thresholds in Attachment AF, Section 3.7 of this Tariff.*

4.6.4.3 Sanctions

The Market Monitor will record instances where Market Participants have failed the screens in Sections 4.6.4.1 and 4.6.4.2 of this Attachment AG and notify the Commission's Office of Enforcement, or successor organization, of such behavior. In the event the Market Monitor determines there is credible evidence of a market violation, the Market Monitor shall make a referral to the Commission as described in Section 4.3 of this Attachment AG.