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December 24, 2008

Ms. Patricia Van Gerpen, Executive Director South Dakota Public Utilities Commission State Capitol Building 500 East Capitol Avenue Pierre, South Dakota 57501-5070

> Re: Northern States Power Company Application for Fuel Clause Adjustment Recovery of MISO Ancillary Services Market Net Costs and Revenues

Dear Ms. Van Gerpen:

Northern States Power Company, a Minnesota corporation ("Xcel Energy" or the "Company") herewith requests the South Dakota Public Utilities Commission confirmation that the net costs and revenues associated with serving the Company's retail electric customers in South Dakota through participation in the Midwest ISO's wholesale ancillary services market (ASM) are appropriate for inclusion in the Company's fuel clause adjustment (FCA) as set forth in SDCL 49-34A-25. The Company also requests the Commission approve certain proposed revisions to the Company's electric tariff effective no later than March 1, 2008, the month when ASM costs would first be included in the Company's monthly fuel clause adjustment calculations.

To accomplish this a petition and seven attachments are enclosed. Please file the enclosures.

Let me know if you have any other questions or comments, please call me at 605-339-8350.

Sincerely,

Allilen

By: \_\_\_\_\_ James C. Wilcox Manager, Government & Regulatory Affairs

Enclosures

### STATE OF SOUTH DAKOTA BEFORE THE SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE PETITION OF NORTHERN STATES POWER COMPANY, A MINNESOTA CORPORATION

DOCKET NO. EL08-\_\_\_\_

PETITION

PETITION FOR APPROVAL OF FUEL CLAUSE RIDER TARIFF CHANGE AND PROPOSED ACCOUNTING TO RECOVER COSTS AND PASS-THROUGH REVENUES RELATED TO MISO ANCILLARY SERVICES MARKET

### INTRODUCTION

Pursuant to South Dakota Codified Laws ("SDCL") Chapter 49-34A, Northern States Power Company, a Minnesota corporation ("Xcel Energy", "NSP" or the "Company") hereby requests the South Dakota Public Utilities Commission ("Commission") approve proposed revisions to the Company's Fuel Clause Rider tariff ("Fuel Clause Rider") to allow pass-through of the costs and revenues associated with the Midwest Independent Transmission System Operator, Inc. ("MISO" or "Midwest ISO") Ancillary Services Market ("Ancillary Services Market" or "ASM"), scheduled to commence on January 6, 2009. Along with the revised Fuel Clause Rider tariff, the Company requests approval of corresponding revisions in the accounting to recover costs and pass through revenues (i.e., a credit offsets to the costs) incurred for South Dakota electric customers.

This petition is submitted pursuant to SDCL § 49-34A-12 (governing notice of tariff changes), § 49-34A-7 (governing utility accounting), and § 49-34A-25 (governing utility automatic adjustment provisions). The tariff revisions are proposed to be effective March 1, 2009, when the first ASM-related costs and revenues would be included in rates through the Fuel Clause Rider. The Company respectfully requests that the Commission: (i) allow the proposed tariff to be effective no later than March 1, 2009, without suspension or

hearing; (ii) and approve the proposed accounting for ASM expenses and revenues effective January 6, 2009, the planned start-up date for the ASM. This will allow the "rules of the road" to be understood before ASM charges and revenues are reflected in retail rates. Unless suspended by the Commission, the Company will place the proposed tariff changes into effect on March 1, 2009.

### SUMMARY

The Midwest ISO commenced operations of a "Day 2" Day Ahead and Real-Time regional wholesale energy market in April 2005. The Company's application for tariff changes and accounting treatment of Day 2 energy market charges and revenues was approved in Docket No. EL04-008, order dated April 7, 2005 ("Day 2 Order").

The Midwest ISO has now proposed to implement an Ancillary Services Market as the next step in the development of the regional wholesale electric markets. The Federal Energy Regulatory Commission ("FERC") approved the proposed ASM tariff in a series of orders issued December 18, 2008, allowing the start-up of the ASM on January 6, 2009.<sup>1</sup> The purpose of this petition is to seek Commission authorization regarding the accounting treatment of ASM costs and revenues in a manner that will be consistent with the treatment of the comparable Day 2 net energy charges and revenues effective with the start of the ASM, and to modify the Fuel Clause Rider tariff to allow inclusion of these energy costs and revenues in the Company's retail electric rates on a current basis.

Following is information specified in South Dakota Administrative Rule ("SDAR") 20:10:13:26 regarding the proposed new Fuel Clause Rider tariff:

## (1) Name and address of the public utility:

Northern States Power Company 500 West Russell Street Sioux Falls, South Dakota 57104 (605) 339-8350

<sup>&</sup>lt;sup>1</sup> See Midwest Indep. Transmission Sys. Operator, Inc., 125 FERC ¶ 61,318 (2008) (Order Authorizing Midwest ISO Ancillary Services Market Startup) *et al.* The citations to the various FERC orders are provided in Attachment 3.

## (2) Section and sheet number of tariff schedule:

Pursuant to SDCL § 49-34A-12 and § 49-34A-2, the Company is submitting the following:

Attachment 1: Sheet No. 5-64, 3<sup>rd</sup> Revision

Attachment 1 provides the changed FCR tariffs proposed to be effective March 1, 2009. Attachment 1 shows the rate changes in both "legislative" format, with new rates or tariff provisions underlined and deleted rate or provisions stricken; and "non-legislative" format to be inserted in the Company's South Dakota Electric Rate Book on file with the Commission.

## (3) Description of the change:

The proposed tariff revisions and accounting will provide for the following:

- Fuel Clause Rider recovery of all new MISO ASM net charges (costs less revenues);
- Fuel Clause Rider recovery of the MISO Day 2 charge types modified as a result of the ASM market;
- Fuel Clause Rider recovery of certain new MISO Day 2 charge types implemented since the Day 2 Order, including Schedule 24 and Auction Revenue Rights costs and revenues; and
- Recording the net ASM costs and revenues in FERC account 555 as a net energy cost, consistent with the Company's current accounting of costs and revenues associated with the MISO Day 2 energy market under the Day 2 Order.

## (4) Reason for the change:

## A. Summary Description of Ancillary Services and the MISO ASM

## 1. What Are Ancillary Services?

Ancillary Services -- a term coined by the FERC in its landmark Order No. 888 -- include the following services: (1) Regulation services; (2) Spinning reserves; (3) Supplemental reserves; (4) Voltage support; (5) Black start services; and (6) Energy Imbalance services. As discussed in more detail later in this application and in Attachment 2, ancillary services are not new. They are functions that have historically been an integral part of the operations of vertically integrated utilities that own generation and transmission, serve their own load, and operate an electrical control area (now known as a "balancing authority"). The Company currently operates a balancing authority, and must operate that balancing authority consistent with mandatory electric reliability standards established by the North American Electric Reliability Corporation ("NERC").<sup>2</sup>

Transmission and balancing authority operators like the Company currently either provide their own generation and/or use bilateral transactions to fulfill their respective ancillary services requirements. The Company has incurred costs and collected revenues associated with both self-generating and purchasing ancillary services and included those costs in retail electric rates virtually since the beginning of Commission rate regulation.

## 2. Ancillary Services in the MISO Day 2 Market

The MISO Day 2 energy market established a regional wholesale energy market that replaced (and also expanded) the former wholesale market that relied on self-generation and bilateral purchases (long term and short term economy energy) to serve regional loads on a day-ahead and real-time basis. The MISO Day 2 market already provides one of the ancillary services defined by FERC (Schedule 4 -- Energy Imbalance Service) on a regional basis. The Commission's Day 2 Order in Docket No. EL05-008 allowed the Company to recover the costs of the MISO Energy Imbalance ancillary service (and other Day 2 market expenses and revenues, including Schedule 16 and 17 administrative charges) through the Fuel Clause Rider mechanism, effective April 1, 2005.

However, the MISO Day 2 market did not fully optimize regional electric generation resources because while the Day 2 market managed the dispatch of generation for the energy market and managing transmission congestion, individual balancing authorities remained responsible for generation dispatch to provide most ancillary services. Today, the twenty-four (24) balancing authorities in the MISO region, including the Company's balancing authority function, set aside generation resources to meet the ancillary service requirements within their balancing authority on a least cost basis, and reflect these reservations in the residual resources available to bid into the Day 2

<sup>&</sup>lt;sup>2</sup> Historically, NERC electric reliability standards were subject to voluntary compliance. Effective June 18, 2007, approximately 83 NERC "Version 0" reliability standards became mandatory pursuant to the Energy Policy Act of 2005 and FERC Order No. 693. *Mandatory Reliability Standards for the Bulk-Power System*, 118 FERC ¶ 61,218, FERC Stats. & Regs. ¶ 31,242 (2007) (Order No. 693); *order on reh'g Mandatory Reliability Standards for the Bulk-Power System*, 120 FERC ¶ 61,053 (2000) (Order No. 693-A). As of the date of this filing, there are approximately 100 NERC reliability standards subject to mandatory compliance. More information about the NERC mandatory standards program is available at the NERC web site at www.nerc.com.

energy market. However, the generation reserved to provide ancillary services by the 24 separate balancing authorities may not be the optimum overall use of those resources from a regional perspective.

## 3. The MISO Ancillary Services Market Proposal

In late 2007, the Midwest ISO filed to modify its Open Access Transmission and Energy Markets Tariff ("TEMT"), a rate schedule on file with the FERC, to modify the Day 2 energy market tariffs to add ancillary services. The ASM proposal was the subject of extensive proceedings at FERC. The FERC proceedings are described in detail in Attachment 3. As noted previously, on December 18, 2008, FERC approved the tariff changes and allowed a January 6, 2009 implementation of the ASM.

The MISO ASM will expand the selection of resources from which ancillary services are provided to a regional basis in order to provide more efficient dispatch of generation and to maintain system reliability. This MISO ASM implementation will focus on regulation, spinning reserve and supplemental (non-spinning) reserve services.<sup>3</sup> These services provide flexible capacity and make energy available when needed by the Company to maintain secure operation of power system in the event of an unexpected loss of generation and/or an increase/change in load. The co-optimized energy market and ASM will provide improved regional optimization of the generation resources needed to meet both energy requirements and reliability requirements.

As a part of doing so, the generation and load diversity within the MISO ASM footprint will allow further efficiencies in providing spinning and supplemental reserves. The MISO ASM will administer market procurement for these services over the entire MISO footprint -- which will be divided into seven initial "reserve zones" to assure the resources are fully deliverable<sup>4</sup> -- and create a financial settlement for the efficient acquisition and pricing of the regulation and spinning and supplemental reserve services required to maintain transmission system security. We provide an expanded discussion of the ancillary services that will be provided under the MISO ASM, and how those services are provided under the current vertically integrated balancing authority model, in the next section of this Petition and in Attachment 2.

<sup>&</sup>lt;sup>3</sup> The remaining Ancillary Services (voltage support and black start service) are not part of the MISO ASM and will remain functions of the utility Local Balancing Authorities ("LBAs"), including the Company's LBA.

<sup>&</sup>lt;sup>4</sup> The number of reserve zones may change over time if MISO determines reliability needs necessitate changes to the number of configuration of zones.

## 4. Anticipated Impact of MISO ASM

The implementation of the MISO ASM will create a combined and simultaneously co-optimized energy market and ancillary services market that will enhance regional transmission reliability, reduce overall electric production costs, improve demand response participation opportunity in the regional wholesale market, and more efficiently price electricity during hours of scarcity.

For example, Xcel Energy currently uses the MISO energy market to purchase some of its short term energy needs (because the cost is less than the Company's available generation resources), but self-supplies the generation required to provide regulation service in its balancing authority needed to balance Area Control Error ("ACE") and to meet NERC balancing authority control performance criteria. This self-supplied generation responds to the moment-to-moment changes in loads and resources within the Company's balancing authority. Xcel Energy also uses a combination of reserved generating capacity and certified interruptible demand (e.g., through retail demand side management programs like SaversSwitch<sup>TM</sup>) to meet spinning and supplemental reserve requirements.

When the ASM is operational, Xcel Energy will no longer need to always selfsupply these ancillary services, and may instead be instructed by MISO to produce energy with generation that was traditionally held in reserve. This would occur if ancillary services can be provided more economically by generation units elsewhere in the MISO region. In essence, the Company will purchase the ancillary services under the MISO tariff (and incur a purchase expense) rather than incur the costs to self-provide the ancillary services, and the low cost energy resources previously held in reserve will be available to meet the energy needs of the Company's customers.

Upon implementation of the ASM, MISO will assume primary Balancing Authority responsibility for the entire MISO footprint, while the 24 traditional balancing authority operators (such as the Company) will continue to function as Local Balancing Areas ("LBAs"). Through Day Ahead and Real Time bidding to provide ancillary services co-optimized with the energy market, MISO will procure from Market Participants enough of all three ancillary service products (regulation, spinning reserves and supplemental reserves) necessary to meet the footprint requirements using the least-cost and mostreliable generation and load assets. MISO will ensure reliability is maintained during this procurement by monitoring the seven initial reserve zones established within the MISO footprint to ensure adequate regional diversity for the ancillary services. MISO will then pay generators that provided the services and allocate the costs of procurement to the entire load within MISO. If NSP System<sup>5</sup> generation resources provide ancillary services, the Company would collect revenue from MISO. The Company will also be billed for its share of the ancillary services provided by MISO under the new ASM-related charge types established by MISO under the TEMT. For example, the MISO ASM may select non-Company resources to provide ancillary services but use Company resources to provide more efficient energy supply when this would be the most efficient grid dispatch.

## 5. Impact of MISO ASM on Company Costs and Revenues

The MISO ASM is expected to provide significant benefits in terms of generation dispatch efficiency and system reliability. As with the Day 2 energy market, however, implementation of the ASM will also change how utilities perform and account for ancillary services, and make more transparent -- through various MISO TEMT charge types -- the costs and revenues associated with providing ancillary services, as compared to traditional "bundled" generation and balancing authority operations. The unbundling of these costs and revenues require clarification of the accounting treatment of new types of charges and revenues.

The proposed ASM revenues recovered from MISO are expected to offset the corresponding expenses billed to the Company by MISO. Given that ASM is a new regional wholesale market to be administered by MISO, the Company has not determined the net impact on Fuel Clause Rider costs or revenues. However, the ASM is expected to reduce total costs to ratepayers by providing for more efficient generation dispatch. The Company will now be able to purchase ancillary services from MISO rather than hold native generation resources in reserve to provide ancillary services when doing so would be more efficient.

The purpose of this Petition is to create the authority for the Company to account for and authority to recover the costs of this new wholesale ancillary services market and to properly credit revenues resulting from the implementation of the MISO ASM market. While ancillary service costs are not new, as indicated above, the costs and revenues associated with ancillary services will come through the new MISO ASM charge types. This Petition is

<sup>&</sup>lt;sup>5</sup> The NSP System refers to the integrated electric generation and transmission system of the Company and its affiliate Northern States Power Company, a Wisconsin corporation ("NSPW"). The Company manages system operations of the integrated system and allocates costs and revenues through the Interchange Agreement, a rate schedule on file with the FERC.

intended to establish the necessary accounting method as well as cost recovery and revenue crediting mechanisms.

## (5) PRESENT RATE:

## A. Description of Ancillary Services

Ancillary services have always been an embedded component of vertically integrated electric utility operations. Utilities have traditionally had individual responsibility to hold enough capacity to provide the regulation and "contingency reserve" energy needed to meet their load and provide for service reliability in order to comply with NERC reliability standards. The reliability requirements give rise to the ancillary services that are the subject of this petition. These ancillary services ensure that there is sufficient generation available to balance with load on the transmission system and thereby maintain service reliability. These capabilities are described in more detail in Attachment 2 and include:

- <u>Regulation service</u>: having generation operating and able to change the MW output (up or down) to respond to changes in load on a second by second basis;
- <u>Spinning Reserve service</u>: having generation on line (spinning), so that it can immediately provide replacement power in the event of an unscheduled outage at another generation unit;
- <u>Supplemental Reserve service</u>: having generation readily available off-line and capable of starting and generating within ten (10) minutes to respond to an unscheduled outage of another generation unit; and
- <u>Energy Imbalance service</u>: providing energy between entities, such as between a utility and a municipal load-serving entity, to account for the difference between the amount scheduled during a period (such as an hour) and the amount actually delivered (which may be more or less than the amount scheduled). Energy Imbalance service could be settled either by an "in kind" exchange of energy in a later period, or via financial transaction. Since the start of the MISO energy market on April 1, 2005, all Energy Imbalances have been settled by financial transactions.

### B. The Evolution of Ancillary Services and the ASM

As discussed in more detail in Attachment 3, FERC ordered the "unbundling" of wholesale energy sales services from wholesale transmission services in Order No. 888 in 1996. FERC ordered all FERC-jurisdictional utilities, including the Company, to provide ancillary services on an unbundled basis: i.e., separate from the associated transmission service the Company was required to provide under its Open Access Transmission Tariff ("OATT") on file with FERC. FERC required unbundling so wholesale customers could choose to self-supply ancillary service obligations, purchase them from the host utility, or purchase them from another provider. The ancillary service rates were based on a fixed cost necessary to provide these services, divided by total loads, with the exception of Energy Imbalance, which was settled in-kind or based on the imbalance energy value. The Company began providing ancillary services to wholesale customers within its control area on an unbundled basis in 1992 at rates on file with FERC.<sup>6</sup> Revenues from OATT Schedules 3, 5, and 6 were treated as a credit to base rates in the Company's retail general rate cases filed after 1996.

With the start of MISO regional transmission tariff operations in February 2002, the transmission service component of most wholesale OATT services on the Company's system transferred from service under the Xcel Energy OATT to service under the MISO regional OATT. However, since MISO did not yet provide ancillary services, wholesale loads connected to the Company's transmission system continued to purchase unbundled ancillary services from the Company at the ancillary service rates set forth in the Xcel Energy OATT. NSP System OATT Schedules 3 (Regulation), 5 (Spinning Reserve), and 6 (Supplemental Reserve) were charged to non-native network loads (such as municipal utilities) as a component of their MISO transmission service bill. MISO billed the wholesale customer based on the Company's OATT-stated ancillary service rates, and then MISO paid the Company for providing the service. In this way, non-native loads within the Company's balancing authority pay a share of the cost to provide ancillary services.

With the start of the MISO regional energy market on April 1, 2005, MISO began to provide one of the Order No. 888 mandated ancillary services --Energy Imbalance (OATT Schedule 4) -- on a regional basis through the Day

<sup>&</sup>lt;sup>6</sup> The NSP Companies filed an open access tariff, including both transmission and ancillary services rates, prior to Order No. 888. This tariff was modified to adopt the Order No. 888 *pro forma* OATT in 1996.

Ahead and Real Time market processes, with all energy imbalances settled financially.<sup>7</sup>

These changes in wholesale transactional practices had a limited effect on the ancillary services provided to retail native load customers, however. The Company largely self-supplied the ancillary service requirements of its retail native load customers from native load resources: either utility-owned generating plants or by means of bilateral power purchase agreements ("PPAs").

On a day-ahead basis, the Company identifies how resources in its balancing authority will be able to provide the required amounts of ancillary services. The balancing authority then self-provides the ancillary service requirements, which results in capacity on native generating resources being held back to provide regulation, spinning reserve and supplemental reserve. On a real-time basis, the Company's balancing authority dispatches NSP System resources as needed to meet system reliability requirements. If the Company is unable to meet the energy requirements needed to serve its load and provide the necessary ancillary services, it is required by NERC reliability standards to purchase additional energy and initiate emergency alert operating conditions.

The Company also entered into regional arrangements, such as the Mid-Continent Area Power Pool ("MAPP") Generation Reserve Sharing Pool ("GRSP"), to share Spinning Reserve and Supplemental Reserve obligations. The MAPP GRSP allowed MAPP member utilities to pool their generation resources to collectively respond to unscheduled generation outages on a GRSP member system. This pooling arrangement helped minimize the cost to ratepayers of individual utilities having all of the reserve generation capacity required by NERC reliability standards to respond to unscheduled outages on their own system.<sup>8</sup> The MAPP GRSP later joined the Midwest Contingency

<sup>&</sup>lt;sup>7</sup> In addition, the Company entered into a Balancing Authority Agreement with MISO whereby MISO began to provide certain coordination between Balancing Authorities in MISO to facilitate the regional energy market. *See Midwest Independent Transmission System Operator, Inc.* 110 FERC ¶ 61,177 (2005). The balancing authority arrangements are discussed in more detail in Attachment 4.

<sup>&</sup>lt;sup>8</sup> For example, the largest outage contingency in the MAPP GRSP was loss of the 500 kV transmission line from Manitoba to Forbes, which would disrupt delivery of hydropower from Canada. Without the MAPP GRSP, NERC reliability standards would require the Company to have approximately 1,200 MW of contingency reserves (spinning or supplemental) available on the NSP System to respond instantaneously to an outage of the 500 kV line. Other individual utilities would similarly need to have contingency reserves equal to the largest generator on their systems. By participating in the MAPP GRSP, the member utilities agreed to respond (i.e. increase their generation output) to an unplanned generation on any system within the MAPP GRSP. Though the MAPP GRSP, NSP's contingency reserve obligation was 376 MW instead of 1,200 MW.

Reserve Sharing Group ("Midwest CRSG") to provide further benefits regarding reserve sharing.<sup>9</sup>

## C. Current Ratemaking Treatment of Ancillary Services Costs

The native load customers of the Company have historically paid -- and continue to pay today -- for ancillary services as a part of the bundled retail rates. The ancillary services costs are bundled in both the "base rates" or are recovered through the Fuel Clause Rider No. 1. These costs are presently a portion of the overall cost of generation capacity and energy, and are not separately identified within base rates or the Fuel Clause Rider No. 1. The capital cost of additional generation and the operation and maintenance costs to operate the generation are simply a part of the total cost of generation included in base rates.

Similarly, the Fuel Clause Rider presently recovers the costs of fuel or purchased energy associated with providing ancillary services. For example, if 75 MW of the capacity of a low cost coal-fired generating unit is designated to carry the spinning reserve obligation for the Company's balancing authority area on a particular day, that 75 MWs of generation is spinning and interconnected to the grid and using fuel, but is not generating electricity for customers. The generation is being held in reserve in case the 75 MW of capacity (and related energy) is immediately needed to respond to an unplanned outage of another generating unit. To make up for the capacity held in reserve, the Company would either incur the fuel costs to generate 75 MWs at another plant, or purchase 75 MW of additional energy in the wholesale bilateral or MISO regional market. The costs of that additional fuel or purchased energy would be reflected in Fuel Clause Rider No. 1.

Some ancillary service costs and third party revenues have been explicitly reflected in retail rates, however. Energy revenues and costs from ancillary services provided to wholesale OATT customers have been reflected as a credit to the monthly Fuel Clause Rider for the Company, similar to the crediting of energy revenues and costs associated with inter-system wholesale sales in the period prior to the MISO Day 2 energy market.

<sup>&</sup>lt;sup>9</sup> The Company's reserve obligations were reduced by another 149 MW when the MAPP GRSP joined the Midwest CRSG in January 2007, and the contingency reserve obligations of the MAPP GRSP were shared with other utilities in eastern MISO. The 149 MW of resources freed-up by participation in the Midwest CRSG was then available to serve NSP System loads, thereby reducing costs to customers. The Company terminated its participation in the MAPP GRSP in June 2008, and now participates in the Midwest CRSG directly.

## D. The MISO ASM Proposal

As discussed in more detail in Attachment 3, on September 14, 2007, MISO filed proposed revisions to the TEMT proposing the market for energy, regulation service and spinning and supplemental reserves, reflecting input from a FERC order and stakeholder processes. MISO proposed that the ASM be effective June 1, 2008. On February 25, 2008, FERC issued an order conditionally approving the ASM tariff changes, but requiring certain additional information.<sup>10</sup> On March 13, 2008, MISO announced that the FERC conditions would not allow the ASM to be implemented on June 1, 2008, as proposed, but MISO would implement the ASM on September 9, 2008. MISO later announced that the start-up of the ASM would be delayed until late 2008; and in early October 2008, MISO announced the ASM would begin operations on January 6, 2009.<sup>11</sup> On December 18, 2008, FERC approved the pending filings necessary to allow the ASM to be implemented on January 6, 2009. The procedural history of the ASM proposal is discussed in detail in Attachment 3.

## (6) **PROPOSED RATE:**

## A. The MISO ASM Continues the Process of MISO Market Development

As with the initial start of the MISO regional energy market in April 2005, the ASM will modify the manner in which the Company dispatches its native generation resources. Similar to the initial regional energy market, the Company will be able to submit bids in a manner so that its native generation resources are "self-scheduled" to serve the Company's native load. However, the MISO ASM tariff will also provide the option to purchase ancillary services through a well-organized regional market operated by MISO rather than sole reliance upon self-supply the ancillary services. Doing so will help the Company minimize total energy costs to native load customers.

For example, based on the resources available through the MISO regional market, the Company may purchase 75 MW of spinning reserve services from the MISO ASM. This purchase may allow use of a lower-cost 75 MW block of owned capacity to serve the energy needs of native load customers. Today, because the only option for reserve resources is from within the local balancing authority, this type of replacement transaction is not feasible. One of the

<sup>&</sup>lt;sup>10</sup> Midwest Independent Transmission System Operator, Inc. 122 FERC ¶ 61,172 (2008).

<sup>&</sup>lt;sup>11</sup> The Company supports MISO's decisions to delay the start-up of the ASM to allow issues to be addressed through additional market trials and corrections to the MISO market models.

benefits available through the ASM comes in such hours where local resources can provide lower-cost energy supply to native load than was previously an option.

In addition, the MISO ASM will enhance the efficiency of regulation services by creating a much larger region over which regulation needs are balanced. Today, the Company must balance generation and loads within its balancing authority area. With the start of the ASM, MISO will manage regulation service needs over a much larger footprint, adding efficiency to the overall regulating requirement by capturing the benefits of local balancing area diversity. For example, if the load on the NSP System increases 100 MW over a two minute period, but the load on the Otter Tail Power Company system simultaneously drops 50 MWs, the NSP System would today start to increase generation 100 MW and Otter Tail balancing authority would simultaneously start to decrease generation 50 MW, for a total of 150 MW (100+50). However, with the MISO ASM, the net regulation need is 50 MW (100 - 50). This reduction results in an overall reduction in the regulating reserve resource requirement for the MISO region.

The ASM is the next step in the continuing development of the regional wholesale electric marketplace. The Company believes the ASM can provide significant benefits to its ratepayers in South Dakota. As with the initial MISO regional energy market, implementation of the ASM will make more transparent -- through new or revised MISO charge types -- the costs and revenues associated with providing ancillary services, as compared to existing "bundled" operations. Implementation of the ASM will also affect how the Company records and accounts for certain revenues and costs. It is thus important to set the "rules of the road" for these accounting and ratemaking practices up front, so costs and revenues are allocated appropriately.

## B. How the ASM Will Allocate Costs

Under the ASM, MISO will clear a regional market for ancillary services. MISO will extend the existing methods of tariff settlements to include payments to ancillary service providers (generators) and charges to users (load) for such services.

In a way similar to the current MISO regional energy market, the Company will be part of a must-offer requirement for generators. MISO will use the resource offer information to evaluate the most efficient use of the generator as either energy supply or ancillary service supply. This method of evaluating the resource for either potential use is termed "simultaneous co-optimization". Generators clearing the market to supply regulation and/or spinning or supplemental reserves will be compensated at the energy price for any energy provided or at a market clearing price for the ancillary service provided. MISO will procure enough regulation, spinning and supplemental reserves in the day-ahead market or the subsequent Reliability Assessment and Commitment ("RAC") process to meet the real-time needs of the power system in the MISO region. The MISO real-time ASM will optimize the dispatch and resource mix based on actual physical conditions as they occur. Regulation procurement costs will be recovered using an hourly dollar-per MW charge allocated to Load Serving Entities ("LSEs") on a load ratio share basis. Spinning and Supplemental Reserve procurement costs will be recovered using an hourly dollar-per MW charge allocated to Load Supplemental Reserve procurement costs will be recovered using an hourly dollar-per MWh charge allocated to both LSEs and energy exporters.

Today, as discussed above, transmission service customers on the NSP System under the MISO TEMT pay the ancillary service rates as established in the Xcel Energy OATT. There are no regional MISO rates established in the TEMT for ancillary services. Current OATT Schedules 3 (Regulation), 5 (Spinning Reserve), and 6 (Supplemental Reserve) are charged to non-native network load as a component of their MISO transmission service bill based on the NSP System rates.

Under MISO's ASM, the Company will cancel the Schedule 3, 5 and 6 rates set forth in the Xcel Energy OATT for the NSP System. NSP will no longer collect OATT Schedule 3, 5, and 6 revenue from transmission customers on the NSP System.<sup>12</sup> Instead, Schedules 3, 5, and 6 will be identified in the MISO TEMT as products that will be billed by MISO. The rates are determined by prices cleared in the Energy and Operating Reserve Market administered by MISO. To perform this settlement, the new ancillary market charge types have been added to the existing 38 MISO TEMT charge types.<sup>13</sup> These settlement charge types are used collect revenues and allocate costs related to ancillary service procurement for MISO's Schedules 3, 5, and 6.

<sup>&</sup>lt;sup>12</sup> The Company submitted the filing to terminate collection of the Company's OATT ancillary services rates on August 8, 2008 in FERC Docket No. ER08-1375-000 as part of a filing by several Midwest ISO Transmission Owners to conditionally terminate their Schedule 3, 5 and 6 rates upon commencement of the ASM. The filing is pending FERC action.

<sup>&</sup>lt;sup>13</sup> The 38 charge types are made up of the 32 original fuel clause adjustment charges approved for Fuel Clause Rider recovery by the Commission in Docket No. EL05-008, plus six additional MISO charges that went into effect after the MISO Day 2 market start and not specifically discussed in the Company's initial filing regarding MISO Day 2. The six additional charge types, and the Company's accounting for them to date, are discussed in detail in Attachment 7.

The Company will no longer directly provide ancillary services to non-native load; and MISO will dispatch ancillary services on an economic dispatch basis for the entire regional footprint. The Company's native load generation resources will be compensated for providing ancillary services to the MISO footprint under the MISO TEMT. If MISO procures ancillary services from the Company's native generation resources to satisfy the obligations of native or non-native load in the balancing area (or any other load in the market), then the generator (i.e., the Company) will receive revenue to recover the costs of providing such service. This revenue will provide an offset to the payments required of the Company to purchase its load ratio share of ancillary services from MISO. This offsetting of revenue and costs for ancillary services is analogous to the off-setting of Locational Marginal Price ("LMP") costs and revenues for energy in the current MISO market.

For example, if the Company is asked to provide additional energy from its native resources by MISO instead of ancillary services, the additional LMP revenue received for producing that energy will directly offset the Company's payments to purchase ancillary services. In either case, if producing energy or providing reserve, the total cost to the Company to provide energy and ancillary services to its customers will be equal to or lower than the cost it would have incurred absent the ASM.

## C. ASM Implementation Necessitates Proper Matching of Costs

While the process for ancillary service procurement is changing, the proper matching and cost recovery of new charges and credits in the markets proposed by the Company should ensure that native load costs are equal to or lower than today for three primary reasons:

- 1. Increased revenue to the Company's generators through either providing ancillary service products or additional energy output will offset charges from MISO for procuring regulation, spinning reserve and supplemental reserve from generators in the MISO region.
- 2. Costs traditionally recovered from the Company's wholesale customers through Xcel Energy OATT Schedules 3, 5, and 6 rates will be recovered through payments to the Company for ancillary services provided through the MISO ASM market charge types.
- 3. Overall costs to provide ancillary services should be reduced as a result of the MISO simultaneous co-optimization of energy and ancillary service market costs. The co-optimized energy market

and ASM will allow regional optimization of the generation needed to meet *both* energy requirements and reliability requirements. As a part of doing so, the generation and load diversity created by the MISO ASM will allow further efficiencies in providing regulating reserves. There will also be an operating reserves capacity reduction pursuant to the Midwest CRSG.<sup>14</sup>

The implementation of the ASM will result in several new MISO TEMT charge types. In addition, MISO is modifying certain existing energy market TEMT charge types previously considered by the Commission and approved for Fuel Clause Rider treatment in the Day 2 Order. The modifications will reflect the co-optimized energy and ancillary services markets. Attachment 2 and 5 provide a description of ASM products and new ASM charge types by category, respectively. Attachment 6 provides a description of the existing MISO charge types that will be modified or terminated concurrent with ASM implementation.

## D. Benefits of the MISO ASM

The Company understands the fundamental question for the Commission to consider in this case is the impact of the ASM on the rates to retail customers in South Dakota if the proposed FCR and other ratemaking treatment is approved. MISO has prepared an overview of anticipated costs of benefits associated with the ASM Market (see

<u>http://www.midwestiso.org/page/Value%20Proposition</u>). The Company believes the ASM will provide benefits to South Dakota ratepayers in terms of more efficient generation dispatch, which will result in lower total costs through the FCR. The ASM is designed so as to:

- Co-optimize energy and ancillary services product clearing.
- Reduce fuel and operation and maintenance costs associated with the provision of regulation and contingency (spinning and supplemental) reserves.

<sup>&</sup>lt;sup>14</sup> As noted earlier, the Company initially participated in the Midwest CRSG Agreement through the MAPP GRSP. However, earlier in 2008 the Company terminated its participation the MAPP GRSP and began participating in the Midwest CRSG directly. To implement the ASM, and reflect the fact MISO will be the balancing authority for its region, MISO filed on June 20, 2008 to terminate the 2006 Midwest CRSG Agreement with a Restated CRSG Agreement. The Restated CRSG Agreement defines the responsibilities of the MISO BA as well as the external balancing authorities that are not within the MISO region but participate in the Midwest CRSGA. FERC conditionally approved the Restated CRSG Agreement on December 18, 2008. *See Midwest Indep. Transmission Sys. Operator, Inc.*, 125 FERC ¶ 61,323 (2008).

- Facilitate the transfer of certain Balancing Authority functions jointly to MISO from current BA providers, including the Company.
- Provide for the efficient acquisition and pricing of regulation services and contingency reserves.
- Provide a platform for incorporating demand responsive resources into the efficient and reliable supply of wholesale power.
- Consolidate contingency reserves and regulating reserves under a single MISO balancing authority functional operation.
- Leverage the diversity of existing balancing authority load and generation variance to reduce the overall demand for regulation service.

The MISO ASM implementation is expected to reduce fuel and operation and maintenance costs in the MISO region as a whole while meeting regional reserve requirements with lowest cost generation, as opposed to meeting 24 separate balancing authority reserve requirements using the lowest cost generation under the control of each balancing authority, as occurs today.

In addition, by consolidating regulating reserves under a single MISO Balancing Authority, the regulating reserves required to meet NERC Area Control Error ("ACE") requirements can be reduced. The diversity benefit based on consolidation into a single, regional ACE requirement helps reduce fuel and O&M costs. Reducing regulating reserve requirements means that additional generation resources of individual utilities can be used to generate energy to serve load when economic rather be held back to maintain compliance with NERC reliability standards.

## E. Cost/Revenue Recovery Proposal

1. Statutory Authority

South Dakota Statutes govern the Company's fuel clause process and tariffs. SDCL 49-34A-25 provides that:

The commission shall permit a public utility to file rate schedules containing provisions for the automatic adjustment of charges for public utility service in

direct relation to changes in wholesale rates for energy delivered, the delivered costs of fuel used in generation of electricity, the delivered cost of gas, ad valorem taxes paid, or commission approved fuel incentives.

This statute requires the Commission to allow the Company to file rate schedules (such as the Fuel Clause Rider) allowing recovery of "wholesale rates for energy delivered." MISO ASM charges and revenues to the Company will be billed (or paid) pursuant to MISO's wholesale TEMT rates on file with FERC. We respectfully request that the Commission affirm that this statute allows for recovery and pass through of TEMT ASM costs and credits from MISO to reflect the actual costs of providing fuel and purchased energy on behalf of retail customers. Because the various components of the ASM are in aggregate comparable to many of our current activities and costs incurred that are recoverable under the fuel clause statute and the Company's Fuel Clause Rider tariff, the Company believes that the Commission should affirm the appropriateness of their recovery.

Essentially the FERC has approved a fundamental modification of the wholesale electric energy marketplace for the Midwest ISO region. The Company believes that SDCL 49-34A-25 provides the flexibility to respond to market changes. This petition attempts to demonstrate that there is good cause to make these changes at this time. After the MISO ASM is implemented, the Commission can determine if or how the fuel clause process may need to change to reflect this evolution in the broader wholesale market as authorized by FERC.

Treatment of the ASM costs and revenues as a "wholesale rate for energy delivered" would be consistent with the ratemaking treatment approved or proposed in other states. The Company is aware that Interstate Power & Light Company is recording the ASM costs and revenues as an energy cost similar to MISO Day 2 costs, and the Public Service Commission of Wisconsin has approved energy cost treatment of ASM costs and revenues for purpose of the Wisconsin fuel and energy cost recovery rules. The Company is proposing fuel clause treatment of ASM costs and revenues in Minnesota and North Dakota, but those state commissions have not acted yet.<sup>15</sup>

<sup>&</sup>lt;sup>15</sup> In Minnesota, MISO market administrative charges (Schedules 16, 17 and 24) are reflected in base rates as a result of the order in the Company's 2005 Minnesota general rate case, so the Company is proposing fuel clause treatment of all ASM charges other than administrative charges. In South Dakota, the commission previously approved fuel clause treatment of all MISO Day 2 charges, including MISO administrative charges, so the Company is proposing fuel clause treatment of all ASM charges and revenues. The Company's petition to the North Dakota Public Service Commission was filed contemporaneously with this Petition.

## 2. ASM Costs and Cost Recovery

Similar to the existing regional energy market, MISO will not own generation or serve loads. Instead, MISO will operate as a market-clearing agent to match available generation to the loads that need ancillary services on a day-ahead and real-time basis. Thus most costs incurred (payments to generators) and revenues received (collected from loads) by MISO simply pass-through MISO. The Company proposes that ASM charges from MISO and the revenues received from MISO be treated in a manner similar to the treatment of initial energy market charges and revenues as determined by the Commission order in Docket No. EL05-008. The total cost to the Company to provide energy and ancillary services to its customers is expected to be equal to or lower than the cost it would have incurred absent the ASM. Thus Fuel Clause Rider treatment of both the ASM charges and associated revenues will provide a timely matching of costs and revenues, and total bills to South Dakota customers should be reduced though Fuel Clause Rider treatment.

## 3. Recovery of Additional MISO Regional Energy Market Charges

In addition to proposing the appropriate ratemaking treatment for the new MISO charge types being implemented with the ASM, the Company requests Commission authority to account for costs and revenues flowing from those existing MISO regional market charge types that are new since the initial start of the energy market.

The specific new and modified MISO charge types are discussed in more detail in Attachments 6 and 7, respectively. Since these charge types are associated with the MISO Day 2 market, the Company believes the charges should be treated in a manner similar to the charge types specifically defined in the Commission's Day 2 Order.

## (7) Proposed effective date of modified rate; Waiver requested:

## A. Proposed Effective Date

The ASM is presently scheduled to commence operations on January 6, 2009, and the Company would reflect the initial ASM charges and revenues in the South Dakota Fuel Clause Rider with bills issued on or after March 1, 2009. The Company thus respectfully requests that the Commission issue an order approving the attached proposed tariff sheets to be effective no later than March 1, 2009, when the initial ASM expenses and revenues will begin to be

reflected in rates. The Company requests Commission approval to account for ASM costs and revenues effective January 6, 2009, the ASM start date.

Pursuant to SDCL § 49-34A-12, the Company believes this Petition and attachments thereto fully satisfy the requirements for a notice of rate change effective March 1, 2009, subject to the Commission's authority to thereafter prospectively change such rates and tariffs through a final order under SDCL 49-34A-21 if the Commission formally investigates the change.

If the Commission, on its own initiative decides to suspend the proposed tariff changes and conducts a hearing pursuant to SDCL §§ 49-34A-14 and 13, the Company respectfully requests the hearing be conducted as expeditiously as possible, so the proposed rates may be placed into effect no later than March 1, 2009. The Company would be interested in working with Commission Staff to promptly resolve the proceeding through an information and settlement process

## B. Waivers Requested

While the Company believes its proposal for treating ASM costs and revenues is consistent with the purpose of the fuel clause statute (SDCL § 49-34A-25) should be affirmed and our Fuel Clause Rider tariff (as amended) should be approved, we recognize that the currently effective Fuel Clause Tariff did not anticipate all of the charges provided by the MISO TEMT or provide for the pass-through of associated ASM credits/revenues. Moreover, the Company is filing the proposed tariff change less than thirty (30) days before the proposed start-up of the MISO ASM.

Consequently, to allow fuel clause treatment of the TEMT costs and revenues on the January 6, 2006 effective date of the MISO ASM, the Company respectfully requests that the Commission waive the 30 day notice requirement of ARSD 20:10:13:20 pursuant to the discretionary waiver authority provided in SDCL 49-34A-12, so the revised proposed accounting for the Fuel Clause Rider may be effective on January 6, 2009, as proposed, with the Fuel Clause Rider tariff changes and the rate impacts of the ASM effective March 1, 2009, when the first costs and revenues would affect rates to customers. We also respectfully request any waivers that are deemed necessary to implement Fuel Clause Rider treatment of the MISO ASM expenses and revenues pending approval of the proposed tariff

## (8) Approximation of annual amount of increase in revenue:

We believe that under the new MISO ASM, the overall cost for energy included in electric rates will be comparable to the costs contemplated to be recovered by the fuel clause statute (SDCL 49-34A-25) and the Fuel Clause Rider in our South Dakota Electric Rate Book. However, the exact impact of the ASM on the Company's total energy costs and thus the Fuel Clause Rider is not known. Our proposal would reflect all of the different costs and credits to expense that will compose the cost of energy delivered to our customers under the TEMT. In implementing this approach, the Company will continue to use the same principles for allocating native and intersystem wholesale costs assuring that native load has first call on least cost generation resources.

## (9) Points affected:

The proposed tariff would be applicable to all areas served by the Company in the State of South Dakota.

# (10) Estimation of the number of customers whose cost of service will be affected and annual amounts of either increases or decreases, or both, in cost of service to those customers:

This Fuel Clause Rider tariff is proposed to be applied to all customers throughout all customer classes as described within this filing. Xcel Energy presently serves just over 79,000 customers in 36 communities in eastern South Dakota.

## (11) Statement of facts, expert opinions, documents, and exhibits to support the proposed changes:

The required information is provided in this Petition and the following attachments:

- Attachment 1– Revised Fuel Clause Rider Tariff page
- Attachment 2 Descriptions of ASM Market Products
- Attachment 3 History's of MISO's ASM Proposal
- Attachment 3A -- Copy of FERC Press Release Announcing Approval of ASM Effective January 6, 2009
- Attachment 4 Balancing Authority Consolidation
- Attachment 5 Description of new ASM Charge types by category

- Attachment 6 Existing MISO Charge Types Modified/Terminated by ASM Implementation
- Attachment 7 Additional MISO Day 2 Charge Types Implemented Since Day 2 Order

Since the Company is submitting this Notice of Rate Change under SDCL § 49-34A-12, the Company is not submitting expert pre-filed direct testimony in support of the proposed Fuel Clause Rider tariff changes and ASM accounting. If this Petition is set for an investigation or evidentiary hearing, the Company would submit expert direct testimony in support of its Petition as determined by the procedural schedule established by the Hearing Officer assigned to the proceeding.

## (12) Other Filing Information

## A. Planned Customer Notice

Pursuant to ARSD 20.10.13.18, the Company plans to provide notice to customers by posting a notice of the proposed change to the Fuel Clause Rider at the Company's offices at Sioux Falls, South Dakota. A copy of this filing will be available for public inspection at the Company's offices at Sioux Falls. To the extent applicable pursuant to SDCL 49-34A-12, a customer has the right to join with twenty-four (24) other customers and file a written objection to the proposed rate change and accounting and that the may request the Commission to suspend the rate change and to hold a public hearing to determine if such rate change should be allowed.

## B. Appearance of Counsel/Service List

The Company will be represented in this proceeding by the following counsel upon whom all pleadings, documents and other filings should be served:

David A. Gerdes	James P. Johnson <sup>16</sup>
May, Adam, Gerdes & Thompson	Assistant General Counsel
503 South Pierre Street	Xcel Energy Services Inc.
P.O. Box 160	414 Nicollet Mall - 5th Floor
Pierre, South Dakota 57501-0160	Minneapolis, MN 55401
Telephone: (605) 224-8803	Telephone: (612) 215-4592

<sup>&</sup>lt;sup>16</sup> Not licensed to practice in the State of South Dakota.

Telefax: (605) 224-6289 Email: dag@magt.com

In addition, please place the following person on the official service list for this proceeding:

SaGonna Thompson	James C. Wilcox	
Records Analyst	Manager, Govt & Regulatory Affairs	
Xcel Energy Services Inc.	Northern States Power Company	
414 Nicollet Mall, 7th Floor	500 West Russell Street	
Minneapolis, MN 55401	Sioux Falls, South Dakota 57104	
Email: SaGonna.Thompson@xcelenergy.com		
Email: james.c.wilcox@xcelenergy.com		

### CONCLUSION

Xcel Energy respectfully requests the Commission approve the Company's Petition with an effective date for the revised tariff sheets of no later than March 1, 2009, with approval of the proposed accounting for ASM costs and revenues effective January 6, 2009, the start date of the ASM.

Dated: December 24, 2008

Northern States Power Company a Minnesota corporation

Actulaç

By:

JAMES C. WILCOX Manager, Government & Regulatory Affairs

## Redline

### PROPOSED

### Northern States Power Company<u>, a Minnesota corporation</u> Minneapolis, Minnesota 55401 SOUTH DAKOTA ELECTRIC RATE BOOK - SDPUC NO. 2

### FUEL CLAUSE RIDER

Section No. 5

2nd-3rd Revised Sheet No. 64

Cancelling 1st-2nd Revised Sheet No. 64

There shall be added to or deducted from the net monthly bill \$0.00001 per kilowatt-hour for each \$0.00001 increase above or decrease below \$0.01092 in the fuel cost per kilowatt-hour sales.

The fuel cost shall be the sum of the following for the most recent two month period plus unrecovered (or less over recovered) prior cumulative energy costs:

- 1. The fossil and nuclear fuel consumed in the Company's generating stations as recorded in Accounts 151 and 518.
- 2. The net energy cost of energy purchases as recorded in Account 555 exclusive of capacity or demand charges, when such energy is purchased on an economic dispatch basis. Account 555 includes hedging program gains, losses and transaction costs related to system supply, pursuant to Docket No. EL99-021.
- 3. The actual identifiable fossil and nuclear fuel costs associated with energy purchased for reasons other than identified in (2) above, less
- 4. The fuel related costs recovered through intersystem sales.
- 5. Net costs or revenues recorded in Accounts 456, 501 and 555 (and other appropriate accounts as determined by the Commission) linked to the Company's load serving obligation, associated with participation in wholesale electric energy <u>and ancillary service</u> markets operated by Regional Transmission Organizations, Independent System Operators or similar entities that have received Federal Energy Regulatory Commission approval to operate the energy markets.

The kilowatt-hour sales shall be all kilowatt-hours sold excluding intersystem sales for the same period.

A carrying charge or credit will be included in the determination of monthly fuel adjustment factors. Said charge or credit will be determined by applying one-twelfth of the overall rate of return granted by the South Dakota Public Utilities Commission in the most recent rate decision to the recorded balance of deferred fuel cost as of the end of the month immediately preceding the fuel adjustment factor determination.

Date Filed:	<del>03-11-05</del>	By: Kent T. LarsonDavid M. Sparby	Effective Date:	<del>04-01-05</del>	
Vice President of Jurisdictional RelationsPresident and CEO of Northern States Power Company, a Minnesota					
corporation					
Docket No.	EL <del>05-008<u>08-</u></del>		Order Date:	<del>04-07-05</del>	

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## Clean

#### PROPOSED

### Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401 SOUTH DAKOTA ELECTRIC RATE BOOK - SDPUC NO. 2

### FUEL CLAUSE RIDER

Section No. 5

3rd Revised Sheet No. 64

Cancelling 2nd Revised Sheet No. 64

There shall be added to or deducted from the net monthly bill \$0.00001 per kilowatt-hour for each \$0.00001 increase above or decrease below \$0.01092 in the fuel cost per kilowatt-hour sales.

The fuel cost shall be the sum of the following for the most recent two month period plus unrecovered (or less over recovered) prior cumulative energy costs:

- 1. The fossil and nuclear fuel consumed in the Company's generating stations as recorded in Accounts 151 and 518.
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- 3. The actual identifiable fossil and nuclear fuel costs associated with energy purchased for reasons other than identified in (2) above, less
- 4. The fuel related costs recovered through intersystem sales.
- 5. Net costs or revenues recorded in Accounts 456, 501 and 555 (and other appropriate accounts as determined by the Commission) linked to the Company's load serving obligation, associated with participation in wholesale electric energy and ancillary service markets operated by Regional Transmission Organizations, Independent System Operators or similar entities that have received Federal Energy Regulatory Commission approval to operate the energy markets.

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 Date Filed:
 By:
 David M. Sparby
 Effective Date:

 President and CEO of Northern States Power Company, a Minnesota corporation

 Docket No.
 EL08 Order Date:

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### **ATTACHMENT 2**

### **DESCRIPTION OF ASM MARKET PRODUCTS**

### 1. Background

Ancillary Services as defined by FERC Order No. 888 include regulation, spinning reserve, supplemental reserve, voltage support, black start, scheduling and energy imbalance services. The MISO ASM implementation will focus on regulation, spinning reserve and supplemental reserve services.<sup>1</sup> These services provide flexible generation capacity available when needed by each utility to maintain secure and reliable operation of power system due to loss or increase of load or the loss or increase of generation resources. Ancillary services are necessary to support capacity and the transmission of energy from generating resources to loads while maintaining reliable operation of the transmission system. The MISO ASM will administer market procurement for these services over the entire MISO footprint as they are needed, and create a financial settlement for the efficient acquisition and pricing of contingency reserves and regulation services required to maintain transmission system security. The MISO ASM is the next iteration in the continuing evolution of the operation of wholesale energy markets.

The MISO ASM is designed to reconcile operating practices with market incentives so that MISO Market Participants are compensated for providing system reliability. The ASM will price ancillary services products that are most beneficial to the system based on current or expected system conditions on a 10-minute basis, as well as provide clear identification of ancillary services products that will allow Market Participants to compete to provide ancillary services, thereby achieving price and cost benefits to ratepayers.

The co-optimized energy and ancillary service products to be provided by MISO include energy, regulation (also known as regulating reserve), spinning reserve and

<sup>&</sup>lt;sup>1</sup> As discussed below, spinning reserves and supplemental reserves are also sometimes referred to as "operating reserves" or "contingency reserves", to distinguish them from "capacity reserves" or "planning reserves".

supplemental reserve (The latter two ancillary services are sometimes returned to as contingency services). Below are descriptions of products that generators or demand response resources can sell in the co-optimized energy and ancillary service market:

**Energy** – Energy is electricity being generated and consumed by load or system losses. Generators selected to provide energy in the MISO market are paid the locational marginal price ("LMP") at their commercial pricing ("CP") node. The price cap for energy offers is \$1,000 per MWh. MISO already provides Day Ahead and Real Time energy services through the Day 2 regional energy market operational since April 1, 2005, and the Company has reflected the costs and revenues related to the MISO energy market in its monthly adjustments under Fuel Clause Rider pursuant to the Commission's Order dated March 29, 2005 in Docket No. EL05-008.

**Energy Imbalance** (previously OATT Schedule 4) -- Although it is an ancillary service, MISO has provided Energy Imbalance service on a regional basis through the settlement of the Day Ahead and Real Time energy markets since the start of the Day 2 market on April 1, 2005, and the Company has reflected the costs and revenues related to this ancillary service in its monthly adjustments under Fuel Clause Rider pursuant to the Commission's Order dated April 7, 2005 in Docket No. EL05-008.

**Regulation** (currently OATT Schedule 3) – Regulation is generating capacity that is capable of operating on automatic generation control ("AGC") and is used by the Balancing Authority to physically balance supply and demand on a real-time, moment-to-moment basis. The two main criteria for generators to qualify to supply regulation into the market are the ability to automatically supply governor response to frequency deviations and being able to receive and respond to 4-second dispatch signals. Since the Company presently operates the Balancing Authority for the NSP System, transmission service users taking service over the Company's system are presently billed the NSP System OATT Schedule 3 rate for transmission services under the MISO TEMT.

With the start of the ASM, MISO will operate the Balancing Authority (and the Company will operate a Local Balancing Authority). However, Regulation service will continue to be physically provided by generators in the MISO region, since MISO does not directly own any generation. Generators will submit bids to provide Regulation service to MISO. Generators will be paid the regulation market-clearing price ("MCP") when selected to provide regulation service. The MCP includes the price per MWh plus the opportunity cost lost versus selling energy to the Day 2 energy market. The offer price cap for regulation service is \$500 per MW.

**Contingency reserves** – Contingency reserves can be either spinning reserve or supplemental reserves and are required by NERC mandatory reliability standards to maintain reliability when unforeseen events occur on the power system. These reserves are used to meet demand on the system in the event of a sudden and unexpected loss of a generation or transmission resource. Since the Company presently operates the Balancing Authority for the NSP System, the Company is obligated to maintain sufficient contingency reserves for the generation and loads on its system. The Company meets this obligation through its participation in the Midwest CRSG.

In addition, OATT transmission service users taking service over the Company's system are presently billed for contingency reserve services associated with the transmission services taken under the MISO TEMT at the contingency reserve service rates (Schedule 5 and 6) set forth in the NSP System OATT.

**Spinning Reserve** (currently OATT Schedule 5) – Resources qualified to supply spinning reserve must be capable of responding to frequency deviations with governor action and must fully deploy within the maximum deployment time.

**Supplemental Reserves** (currently OATT Schedule 6) – Supplemental reserves are unloaded resources set aside to supply an abnormal electric system supply deficiency event. Supplemental reserves must be fully deployable within the maximum reserve deployment time (e.g., 10 minutes), but are not required to provide frequency response.

With the start of the ASM, MISO will operate the Balancing Authority (and the Company will operate a Local Balancing Authority). In its order date December 18, 2008 approving revisions to the Midwest CRSG Contingency Reserve Sharing Groupagreement related to the start of the ASM, MISO must carry its portion of contingency reserves to cover 150% of the largest single group-wide contingency, which is normally loss of the MHEB/US 500 kV interconnection.<sup>1</sup> 150 % of the loss of the MHEB line is 2250 MW, and the MISO BA's portion will be 1606 MW. A minimum 40% of the total reserve requirement needs to be spinning reserve; the remaining 60% can be a combination of spinning reserve, off line quick start resources, or demand response resources. Note that MISO is currently evaluating if demand response resources can act as spinning reserve. Also, MISO will clear more than 1606 MW of contingency reserve at any given moment so that they have at least 1606 MW of reserves that are deployable at that point in time. The offer cap for spinning and supplemental reserves is \$100 per MW per hour. When selected to provide contingency reserves to the market, generators are paid the Market Clearing Price (MCP) for the reserves they supply. The MCP includes a price per MWh plus opportunity costs in lieu of selling energy in the energy market.

### 2. Impact on MISO Charge Types

The three historic OATT ancillary service rate schedules established by the Company under the NSP System OATT to provide Regulation, Spinning Reserve and Supplemental Reserves under the FERC Order No. 888 OATT will be cancelled and replaced by 14new MISO charge types under the TEMT. These charge types will be added to the existing 38 MISO energy market charge types upon ASM implementation. The fourteen new charge types are grouped into categories (procurement charges, resource energy charges, cost distribution charges and penalty charge types) in

1

Midwest Independent Transmission System Operator, Inc., 125 FERC § 61,323 (2008).

Attachment 5. Five (5) existing MISO charge types will be modified, and one existing charge type will be terminated (as explained in Attachment 6). The MISO Schedule 17 charge type will continue to recover MISO's operational costs to administer the day-ahead and real-time energy market. The Schedule 17 fees will be adjusted (increased) to account for the increased operational cost of the ASM.

### **ATTACHMENT 3**

### HISTORY OF MISO'S ASM PROPOSAL

### 1. FERC Order No. 888

FERC Order No. 888 (1996) required utilities to provide several standard ancillary services as part of their Open Access Transmission Tariffs ("OATTs"), which FERC ordered each jurisdictional public utility to file as a compliance filing to Order No. 888.<sup>1</sup> These ancillary services were included in the Company's rate schedules filed in compliance with the Order 888 *pro forma* tariff.<sup>2</sup> Since most of the load on utility systems is native load, however, the ancillary services for native load were part of the "bundled" retail service, since FERC did not require utilities to use OATT service to serve their own native loads. The Order No. 888 ancillary services provided to third-party customers (e.g., municipal utilities or municipal power agencies) taking transmission service under the Company's OATT, and were treated as a revenue credit in general rate cases.

### 2. Ancillary Services Under MISO Day 1 Operations

Beginning on February 1, 2002, MISO began providing regional transmission service under an OATT that followed the FERC Order No. 888 *pro forma* tariff. Most transmission services under the NSP System OATT were assigned to MISO, and the customers began taking transmission service under the TEMT.<sup>3</sup> The transmission services were provided under MISO Attachment O – Transmission Rates. Since MISO

<sup>&</sup>lt;sup>1</sup> See Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities and Transmitting Utilities, Order No. 888, F.E.R.C. Stats. & Regs. 31,036, (1996) ("Order No. 888"), order on reh'g, Order No. 888-A, F.E.R.C. Stats. & Regs. 31,048 (1997), order on reh'g, Order No. 888-B, 81 F.E.R.C. ¶ 61,248 (1997) ("Order No. 888-B"), order on reh'g, Order No. 888-C, 82 F.E.R.C. ¶61,046 (1998), aff'd New York, et al. v. FERC, 122 S.Ct. 1012 (2002).

<sup>&</sup>lt;sup>2</sup> The Company's current Schedule 3, 5 and 6 ancillary service charges were established in it 1998 FERC transmission rate case (Docket No. OA97-25-000). See *Northern States Power Company*, 89 FERC ¶ 61,300 (1999).

<sup>&</sup>lt;sup>3</sup> Certain transmission services under pre-Order No. 888 transmission service agreements and certain network transmission services under the NSP System OATT were treated as "grandfathered agreements" ("GFAs"), and the customer continued to take service under the GFA with the NSP Companies. All NSP System OATT transmission service agreements have now been assigned to MISO or terminated.

Page 2 of 10 did not own or operate any generation with which to provide ancillary services, however, MISO did not file regional ancillary service rates. Instead, MISO provided ancillary services at the rates stated in the individual member utilities' pre-MISO OATT (such as the NSP System OATT). Although MISO collected the revenue under the MISO Tariff, the service was provided by the utility's generation, and MISO paid all ancillary service revenue collected (Schedules 3, 5 and 6) to the host transmission utility.

However, in its 2001 order approving MISO to commence operations as an RTO,<sup>4</sup> FERC expressed concern about the number of control areas (currently 24) in the MISO footprint and urged MISO to develop a consolidation process of these reliability and tariff operations.<sup>5</sup>

### 3. Ancillary Services Under the MISO Day 2 TEMT

On March 31, 2004, the Midwest ISO filed a proposed Open Access Transmission and Energy Markets Tariff ("TEMT" or "Energy Markets Tariff") with the FERC in Docket No. ER04-691-000. The Midwest ISO's proposed Energy Markets Tariff set forth rates, charges, terms and conditions for the implementation of a regional securityconstrained economic dispatch platform supported by a day-ahead and real-time energy market design, including locational marginal pricing ("LMP") and financial transmission rights ("FTRs") within the Midwest ISO region. On May 26, 2004, the FERC directed the Midwest ISO to implement energy markets (also known as the "Day 2 energy market") in the Midwest ISO region on March 1, 2005.<sup>6</sup> (The start date was later delayed one month.) Beginning with the MISO Day 2 energy market launch on April 1, 2005, regional day-ahead and real-time wholesale energy markets expanded the short-term bilateral purchases of energy and created a centralized dispatch for all load in the MISO footprint.

<sup>&</sup>lt;sup>4</sup> *Midwest Independent Transmission System Operator, Inc.,* Opinion No. 453, 97 FERC ¶ 61,033 (2001); order on reh 'g, Order No. 453-A, 98 FERC ¶61,141 (2002).

<sup>&</sup>lt;sup>5</sup> By comparison, prior to the expansion of the PJM Interconnection, Inc. ("PJM") RTO to include American Electric Power Company and Commonwealth Edison, the PJM region RTO operated as a single control area.

<sup>&</sup>lt;sup>6</sup> *Midwest Independent Transmission System Operator, Inc.*, 108 FERC ¶ 61,163, order on reh'g, 109 FERC ¶ 61,157 (2004), order on reh'g, 111 FERC ¶ 61,043 (2005), reh'g denied, 112 FERC ¶ 61,086 (2005).

In addition, the tariff changes to implement the MISO Day 2 energy market also replaced the NSP System OATT ancillary service Schedule 4 – Energy and Imbalance Service, with a similar service under the TEMT. Starting April 1, 2005, MISO provided that ancillary service on a regional basis via the Day Ahead and Real Time Market operations and settlement processes. The Company continued to provide other Order No. 888 ancillary services (e.g., OATT Schedules 3, 5 and 6) for loads in its pricing zone, with MISO provided the revenue collection from customers and distribution to the Company. The Company also continued to provide control area (now known as Balancing Authority) functions, although MISO began to provide some Balancing Authority coordination under a Balancing Authority Agreement approved by FERC as part of Day 2 market implementation.<sup>7</sup> In the orders approving the Day 2 energy market, FERC again encouraged MISO to move toward consolidation of the numerous control areas in the MISO region.

### 4. The ASM Stakeholder Process/Midwest CRSG

After the start of the Day 2 market, MISO began a stakeholder process to consider expanding the TEMT to include the provision of ancillary services beyond Schedule 4 - Energy Imbalance Service. The Company actively participated in the MISO stakeholder processes.

In addition, in July 2006, MISO filed an agreement where by MISO would be the administrator of the Midwest CRSG. FERC approved the Midwest CRSG Agreement on October 24, 2006,<sup>8</sup> and the Midwest CRSG was implemented January 1, 2007. As a result, the Midwest ISO began administering the provision of Contingency Reserve ancillary services (spinning and supplemental services) in the MISO footprint (and beyond) through the Midwest CRSG, although it did not yet directly provide Contingency Reserve ancillary services under the TEMT. As such, transmission service customers taking transmission service over the NSP System continued to procure Schedule 5 and Schedule 6 ancillary services at the rates set forth in the NSP System

<sup>&</sup>lt;sup>7</sup> *Midwest Indep. Transmission Sys. Operator, Inc.*, 110 FERC ¶ 61, 177 (2005); *order on reh'g* 111 FERC ¶ 61,367 (2005)

Midwest Indep. Transmission Sys. Operator, Inc., 117 FERC ¶ 61,092 (2006).
OATT, and MISO provided the revenue collection from customers and revenue distribution to the Company.

The Company initially participated in the Midwest CRSG through the MAPP Generation Reserve Sharing Pool ("MAPP GRSP"), which joined the Midwest CRSG on a pool basis. In June 2008, the Company terminated its membership in the MAPP GRSP and began direct participation in the Midwest CRSG. As discussed in the Petition, the formation of the Midwest CRSG reduced the NSP System contingency reserve obligation by 149 MW, allowing these generation resources to serve loads rather than be held in reserve.

#### 5. The Initial MISO ASM FERC Filing Docket

On February 15, 2007, the Midwest ISO filed revisions to its TEMT proposing to establish a co-optimized, competitive market for energy and operating reserves through a regional Ancillary Services Market, or "ASM". This tariff filing was the next step in the evolution of MISO and would add three regional market-based ancillary services (Regulation, Spinning Reserves, Supplemental Reserves) to the MISO TEMT. The Company participated in the FERC proceeding, filing written comments suggesting needed enhancements to the ASM as proposed by MISO. On June 22, 2007, the FERC issued its Order on the initial Midwest ISO ASM filing. In its Order, the FERC rejected the filing because it lacked the necessary market power analysis and a readiness plan. However, FERC also provided guidance on certain design issues, choosing not to address certain other issues raised by interveners.<sup>9</sup>

In response to the Guidance Order, MISO began a second round of stakeholder input meetings to consider ASM design and implementation issues to respond the concerns expressed by FERC and intervenors in the initial ASM docket. The stakeholder process involved many meetings between June 2007 and September 2007. The Company continued to actively participate in this stakeholder process.

<sup>&</sup>lt;sup>9</sup> Midwest Independent Transmission System Operator, Inc., 119 FERC ¶ 61,311 (2007), reh'g denied 120 FERC ¶ 61,202 (2007) ("Guidance Order").

### 6. The Revised MISO ASM Proposal is Approved by FERC

On September 14, 2007, the Midwest ISO filed its revised ASM proposal in FERC Docket No. ER07-1372-000, including modifications or additional information responding to the June 27, 2007 FERC Guidance Order. Several parties, including the Company, filed Motions to Intervene and objections to (or comments on) the Midwest ISO's revised ASM proposal. On November 19, 2007, the FERC issued an Order to convene a technical conference on December 6, 2007 to explore the issues raised by the Midwest ISO's market power analysis and proposed mitigation plan.

On February 25, 2008, FERC issued its *Order on Ancillary Services Filing* ("Second ASM Order").<sup>10</sup> In this Order, FERC found that previous deficiencies identified in the Guidance Order had been addressed and the proposed ASM tariffs were therefore accepted, as modified by FERC. FERC also accepted MISO's plan for Balancing Authority consolidation, its readiness plan and reversion procedures in the event that the ASM terminated. Finally, FERC conditionally accepted the ASM start-up for June 1, 2008, subject to MISO filing its reversion plan, an executed copy of the revised Balancing Authority Agreement (which modifies the Balancing Authority Agreement approved by FERC as part of the Day 2 energy market implementation), and market-readiness certification as provided within the text of the February 25<sup>th</sup> Order.

On March 13, 2008, MISO issued a press release announcing that it would delay the implementation date for the ASM from June 1 to September 9, 2008. In its announcement, MISO identified that it is currently determining the estimated cost to complete the ASM project, including finalizing complete testing schedules and adding further parallel operation tests and system operation tests necessary to ensure readiness and full tariff compliance. In addition, the delay would allow MISO to complete the NERC certification process allowing MISO to function as a Balancing Authority for the MISO region.

In the March 13<sup>th</sup> press release, MISO identified that the ASM was expected to increase the efficiency of the existing MISO day-ahead and real-time energy markets by a net annual benefits estimated to be between \$115 million and \$205 million. Further,

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Midwest Independent Transmission System Operator, Inc. 122 FERC ¶ 61,172 (2008).

MISO identified that the ASM will provide an excellent platform for enhanced demand response resource participation within the overall MISO footprint.

On April 18, 2008, MISO announced that NERC and the Regional Entities in the MISO region had certified MISO as a Balancing Authority. Attachment 4 includes a copy of the MISO news release announcing the NERC certification. This certification means NERC has determined that MISO can succeed to the participating utilities as the NERC certified Balancing Authority for their respective systems, with the utilities continuing to function as Local Balancing Areas pursuant to the revised Balancing Authority Agreement approved by FERC in the Second ASM Order.

On June 23, 2008, FERC granted in part and denied in part the requests for rehearing of a Second ASM Order. FERC clarified that sellers in the Midwest ISO with authority to sell energy at market-based rates will be authorized to sell ancillary services at market-based rates in the ASM upon inclusion in their market-based rate tariffs of the standard ancillary services provision. FERC also directed the Midwest ISO to make a compliance filing, within 30 days of the date of the order.<sup>11</sup>

On June 23, 2008, FERC also issued an order conditionally accepting a compliance filing by Midwest ISO regarding its ASM and ordered a further compliance filing to be due July 23, 2008. The Commission accepted the Midwest ISO's request to delay implementation of its ASM until September 9, 2008. The Midwest ISO requested to delay implementation in order to engage in further system operations and parallel operations tests to ensure market readiness and tariff compliance.<sup>12</sup>

Various parties filed requests for rehearing of the June 23, 2008 orders. On July 25, 2008, MISO filed its Readiness Certification, stating MISO is or will be ready to launch the ASM on September 9th. On August 15, 2008, Xcel Energy (and several other parties) filed comments challenging MISO's actual readiness, and urging FERC to delay the ASM launch until at least October 1, 2008. At the MISO Board of Directors meeting on August 21, 2008, MISO management announced the ASM start date would be delayed

<sup>&</sup>lt;sup>11</sup> *Midwest Indep. Transmission Sys. Operator, Inc.*, 123 FERC ¶ 61,297 (2008).

<sup>&</sup>lt;sup>12</sup> *Midwest Indep. Transmission Sys. Operator, Inc.*, 124 FERC ¶ 61,296 (2008).

beyond September 9, 2008 due to the appearance of artificial scarcity. On August 26, 2008, MISO announced the ASM would be delayed until approximately December 9, 2008, to allow additional market trials. On October 1, 2008, the Midwest ISO announced the start-up of the ASM would be delayed to January 6, 2009.

On October 2, 2008, the Midwest ISO filed changes to the TEMT designed to limit the amount artificial scarcity observed in ASM market trials and the impact of regulation reserve scarcity. Other changes to the tariff were aimed at decreasing penalties to encourage more ramp to be offered into the ASM market. Another change included decreasing the administratively set regulation reserve scarcity price by setting it equal to a peaker proxy price. Xcel Energy commented on this filing. The Midwest ISO submitted a second ASM readiness certification filing on November 21, 2008.

On December 18, 2008, FERC issued a series of orders acting on all pending MISO compliance filings and requests for rehearing in the ASM dockets, including the proposed revisions to the Midwest CRSG Agreement necessitated by the start of the ASM and the balancing authority consolidation. FERC approved the various filings so as to allow the start of the ASM on January 6, 2008, as proposed by MISO.<sup>13</sup>

#### 7. The MISO Readiness Advisor Process and Readiness Benchmarks

In order to ensure that the implementation of the MISO ASM goes as smoothly as possible, an independent Readiness Advisor was engaged to work with MISO and its stakeholders. The Readiness Advisor and MISO Stakeholders developed a set of highlevel Benchmarks designed to measure the readiness of the Midwest ISO to launch the ASM and to assume the Balancing Authority function. Operation of the ASM requires significant enhancements to information systems to process and manage the information shared between Market Participants (such as the Company), Local Balancing Authorities and the Midwest ISO. The Benchmarks focus upon major areas that are vital to the success of ASM operations, such as Markets, Operations and Implementation. The

<sup>&</sup>lt;sup>13</sup> See Midwest Indep. Transmission Sys. Operator, Inc., 125 FERC ¶ 61,318 (2008) (Order Authorizing Midwest ISO Ancillary Services Market Startup); Midwest Indep. Transmission Sys. Operator, Inc., 125 FERC ¶ 61,319 (2008) (Order on Compliance); Midwest Indep. Transmission Sys. Operator, Inc., 125 FERC ¶ 61,322 (2008) (Order Denying Rehearing); and Midwest Indep. Transmission Sys. Operator, Inc., 125 FERC ¶ 61,323 (2008) (order accepting revised Midwest CRSG Agreement). See also Midwest Indep. Transmission Sys. Operator, Inc., 125 FERC ¶ 61,320 (2008) and 125 FERC ¶ 61,321 (2008).

Midwest ISO will use these results as an input into its certification to the FERC of the reliability and readiness of its revised Energy market and ASM systems.<sup>14</sup>

A brief definition of each readiness benchmark is listed below.

## **Benchmark Definition - ASM Infrastructure**

This benchmark verifies the ability of the servers and associated technology to maintain mission critical processes of Automatic Generation Control (AGC) and Real-Time (RT) Dispatch, when deployed from either the conventional Control Center or the Backup Control Center (BCC).

## **Benchmark Definition - ASM/BA Systems**

This benchmark verifies the integrity of Ancillary Services Market (ASM)/Balancing Authority (BA) Day-Ahead (DA) and Real-Time (RT) Operating Reserve Systems and the resulting Market Clearing Prices and Settlement Verification. It also addresses the resolution of critical system defects and the exit criteria of the Business Process and Operational Test phases.

## **Benchmark Definition - BPM**

This benchmark verifies that the Business Practice Manuals (BPM) posted to the Midwest ISO website are reviewed by the Midwest ISO and Midwest ISO Stakeholders and updated to reflect the current version of the approved Open Access Transmission and Energy and Operating Reserve Markets Tariff required for the ASM launch.

# **Benchmark Definition - Certification**

This benchmark verifies that the Midwest ISO has attained NERC Balancing Authority (BA) Certification and as such can carry out the duties and responsibilities of the BA for the footprint of the Midwest ISO.

# **Benchmark Definition - Compliance**

This benchmark acknowledges that a FERC Order has accepted the ASM Tariff, the Midwest ISO has filed in compliance with that order, if required, a Reversion Plan has been developed, the Independent Market Monitor (IMM)-Balancing Authority Agreement (BAA) is executed, and Settlement Objectives for SAS 70 Type II have been documented and reviewed by appropriate Stakeholders. This benchmark further recognizes the efforts of the Organization of MISO States and has a milestone criterion tracking its continuing efforts in following the Ancillary Services Market (ASM) to launch.

<sup>&</sup>lt;sup>14</sup> See *Midwest Independent Transmission System Operator, Inc.*, 119 FERC ¶ 61,311 (2007) at P. 46 through 49.

## **Benchmark Definition- Data Exchange**

This benchmark verifies that the ASM Communications paths and messaging has been tested for ASM Market Participant (MP), Operating Reserve Provider (ORP), and Local Balancing Authority (LBA) operations, that digital certificates are available for testing and production and that the Market Portal can be used effectively.

## **Benchmark Definition - Market Monitoring**

This benchmark verifies that the Independent Market Monitor (IMM) has certified that it has the ability to perform monitoring and intervention activities for the Midwest ISO Energy and ASM 90 days prior to market launch. This benchmark further verifies that the Market Power Study was completed.

## **Benchmark Definition - Operating Procedures**

This benchmark verifies that the Operating Procedures, Abnormal Operating Procedures, and Emergency Operating Procedures have been updated in support of the ASM/Balancing Authority initiative and reviewed for adequacy by the Reliability Subcommittee.

## **Benchmark Definition - Registration**

This benchmark verifies that Market Participants (MPs) have the ability to update asset registration information for the ASM/ Balancing Authority initiative. This registration activity includes appropriate network/commercial model mapping and physical asset parameter updates.

## **Benchmark Definition - Staffing**

This benchmark verifies that the appropriate Midwest ISO staff is authorized and organizational alignment has occurred to operate the ASM.

## **Benchmark Definition - Training**

This Benchmark verifies that Midwest ISO, Local Balancing Authority (LBA), Operating Reserve Provider (ORP), and Market Participant (MP) training has been engaged in support of implementing the ASM and Balancing Authority functional alignment responsibilities.

The Company supports the Readiness Advisor process as a means for an independent review to ensure that MISO and affected Market Participants and Balancing Authorities are ready and capable to implement the ASM as proposed. In November 2008, the Readiness Advisor certified to FERC that MISO is prepared to implement the ASM. In the December 18, 2008 orders, FERC found MISO met the readiness certification requirements of the Second ASM Order.

## FERC PRESS REALEASE ANNOUNCING ASM APPROVAL



#### FERC Authorizes Midwest ISO Ancillary Services Market for January 2009 Startup

The Federal Energy Regulatory Commission (FERC) today issued a series of orders that authorize the start-up of the Midwest Independent Transmission System Operator's (Midwest ISO) ancillary services market (ASM) on Jan. 6, 2009, and conditionally accept revisions to its Open Access Transmission and Energy Markets Tariff to implement the Midwest ISO ASM.

In February 2008, FERC conditionally accepted the Midwest ISO's ASM proposal, praising its approach to minimize overall production costs in the Midwest ISO markets by coordinating the market-based procurement of energy and operating reserves. FERC noted that the Midwest ISO's ASM proposal incorporated the best design features that have worked successfully in other regional transmission organizations and independent system organizations (ISO), such as the New York ISO, the PJM Interconnection and ISO New England. At that time, the Midwest ISO was directed to make further compliance filings, which the Commission acted on today.

"The Midwest ISO continues to show steady improvements in their market rules, and today's actions represent continued progress towards more perfect competition," FERC Chairman Joseph T. Kelliher said.

Among today's actions:

- FERC found the Readiness Certification and Reversion Plan provided by the Midwest ISO, the certification of its Chief Operating Officer, and the North American Electric Reliability Corp. certification of the Midwest ISO as the Balancing Authority for the Midwest ISO region to be in compliance with its requirements for the start of the ASM. (ER07-1372-002, ER07-1372-011, ER07-1372-013)
- FERC accepted the Midwest ISO's plan to limit the applicability of scarcity pricing to situations of true scarcity. Specifically, the Commission accepted the Midwest ISO proposal to share ramp capability among energy and operating reserve products, similar to procedures used by other ISOs, and to cap the regulating reserve price at the cost of a peak generator during periods of short-term, or transitory, scarcity. (ER09-24-000)
- FERC accepted the Midwest ISO's proposal to use stored energy resources for contingency reserves as well as regulating reserves. To the extent that stored energy resources meet the eligibility requirements for regulating reserves, they should meet the requirements for providing contingency reserves, FERC said. (ER07-1372-007)
- FERC directed the Midwest ISO to make an informational filing within 180 days of the implementation date for stored energy resources (June 1, 2009) discussing any reliability issues that arise from their use. (ER07-1372-007)
- · FERC conditionally accepted revisions to the Midwest ISO's tariff that modify its method of

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determining five-minute *ex post* locational market prices and market clearing prices effective on the start-up date of the ASM. The Midwest ISO's proposal to use short-term forecasts of system demand would result in nearly identical *ex ante* and *ex post* prices. After the ASM launch date, the Midwest ISO must complete compliance filings on this operation. (ER08-1256-001)

- FERC conditionally accepted the Midwest ISO's proposed tariff, replacing its current tariff. The revised tariff converges existing tariff provisions with those that have been amended as part of the ASM proceeding. (ER09-15-000)
- FERC denied rehearing of a June 23, 2008, order in which FERC conditionally accepted the Midwest ISO's compliance filing relating to the February 2008 ASM order. (ER07-1372-009 and ER07-1372-010)

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## **ATTACHMENT 4**

## **BALANCING AUTHORITY CONSOLIDATION**

Before the MISO ASM can be launched, certain functions and responsibilities currently residing with 24 separate Balancing Authorities (BAs) in the MISO region are being consolidated and becoming the responsibility of MISO. The MISO ASM filing calls for the formation of a single regional balancing area called the MISO Balancing Area ("MBA"). The MBA will take on many balancing authority responsibilities currently the responsibility of the 24 separate Balancing Authorities (including the balancing authority operated by the Company), and the historic BAs will become Local Balancing Areas ("LBAs") within the larger MBA. The LBAs will be responsible for the remaining balancing authority responsibilities – which are mandated by NERC mandatory electric reliability standards -- not performed by the MBA.

As part of the implementation of the MISO Day 2 energy market, the Midwest ISO and the Company (and the other 23 BAs) executed a Balancing Authority Agreement (BA Agreement) in 2004. Under the 2004 BA Agreement, MISO provides certain coordination services on a regional level, while the BAs continued to perform most BA functions. The BA Agreement was approved by FERC in 2005.<sup>1</sup>

The consolidation of these BA functions at MISO under the ASM will require the existing BA Agreement to be amended. In addition, the MISO ASM had to be designed to meet all NERC mandatory Reliability Standards for a balancing authority. Each of the 24 individual balancing authorities will execute a revised balancing authority Agreement with MISO that assigns MISO joint responsibility for compliance with NERC balancing authority Reliability Standards. However, by signing the primary functional control of balancing authority responsibilities to MISO, the efficiency of the ASM is optimized by centralizing the function within MISO's control.

<sup>&</sup>lt;sup>1</sup> *Midwest Indep. Transmission Sys. Operator, Inc.*, 110 FERC ¶ 61177 (2005); *order on reh'g* 111 FERC ¶ 61,367 (2005.

On April 18, 2008, NERC certified MISO as a Balancing Authority, completing one of the Readiness Benchmarks for implementation of the MISO ASM. Attachment 4, page 3 is a copy of the MISO press release.



## NERC APPROVES MIDWEST ISO AS BALANCING AUTHORITY

Certification an important step toward launch of Ancillary Services Market

FOR IMMEDIATE RELEASE April 18, 2008 MEDIA CONTACT Carl Dombek 1-888-MISO-NEWS (647-6639)

News Release

CARMEL, Ind. – The North American Electric Reliability Corporation (NERC) has certified the Midwest Independent Transmission System Operator, Inc. (Midwest ISO) as a Joint Registered Balancing Authority. The certification is a critical step in progress toward implementation of the Midwest ISO Ancillary Services Market, which is scheduled for September 9, 2008.

"We are very pleased that NERC confirmed we are ready to become the region's overall balancing authority," said Roger Harszy, the Midwest ISO's Vice President of Real Time Operations. "We have a long history with our existing balancing authorities and have benefited from close coordination over the years. We will continue that close coordination once they become Local Balancing Authorities under the NERC certification."

A review team consisting of representatives from NERC, SERC, Reliability *First* Corporation, Midwest Reliability Organization, as well as a number of industry experts examined the Midwest ISO's operations to determine whether the RTO has the necessary tools, processes, and procedures to operate reliably as a Balancing Authority. After careful review of the results of this evaluation, it was determined that the Midwest ISO had provided reasonable assurance that it and its Local Control Centers with designated compliance responsibilities can reliably operate as a Balancing Authority.

The certification was contingent upon the review team certifying the readiness of one new local balancing authority in the western portion of the Midwest ISO footprint. This local balancing authority certification has been completed and per NERC, the Midwest ISO has met the requirements specified to begin BA operations. The date Midwest ISO will assume the functions of Balancing Authority will be coincident with the start of the Ancillary Services Market.

#### About the Midwest ISO

The Midwest ISO ensures reliable operation of, and equal access to, 93,600 miles of interconnected, high-voltage power lines in 15 U.S. states and the Canadian province of Manitoba. The Midwest ISO manages one of the world's largest energy markets, clearing nearly \$3 billion in energy transactions monthly. The Midwest ISO was approved as the nation's first regional transmission organization (RTO) in 2001. The non-profit 501(C)(4) organization is governed by an independent Board of Directors, and is headquartered in Carmel, Indiana with operations centers in Carmel and St. Paul, Minnesota. Membership in the organization is voluntary. For more information, visit, <u>www.midwestmarket.org</u>.

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# ATTACHMENT 5

# DESCRIPTION OF NEW ASM CHARGE TYPES BY CATEGORY

The start-up of the MISO ASM will result in fourteen (14) new MISO "charge types" under the TEMT, in addition to the existing 38 charge types associated with the Day 2 energy market. The new charge types are summarized in the table below.

## ANCILLARY SERVICES MARKET CHARGE TYPES BY CATEGORIES

MISO ANCILLARY SERVICES MARKET (ASM)
Procurement Charges
1 Day-Ahead Regulation
2 Day-Ahead Spinning Regulation
3 Day-Ahead Supplemental Reserve
4 Real-Time Regulation
5 Real-Time Spinning Reserve
6 Real-Time Supplemental Reserve
Resource Energy Charges
7 Non-Excessive Energy
8 Excess Energy
9 Net Regulation Adjustment
Cost Distribution Charges
10 Regulation
11 Spinning Reserve
12 Supplemental Reserve
Penalty Charges
13 Regulation Penalty Amount
14 Contingency Reserve Development Failure Penalty

The following is a summary description of the 14 new MISO charge types to be implemented with the start of the ASM.

## **Ancillary Supply Charges:**

<u>Day-Ahead Regulation</u> represents an Asset Owner's<sup>1</sup> compensation for the assigned responsibility to hold a portion of its regulation-capable assets available to provide regulation and frequency response service when instructed by MISO.

<u>Day-Ahead Spinning Reserve</u> represents an Asset Owner's compensation for the assigned responsibility to hold a portion of its generation or demand response resources total capability to provide increased generation or load reduction for spinning reserve service when instructed by MISO.

<u>Day-Ahead Supplemental Reserve</u> represents an Asset Owner's compensation for the assigned responsibility to hold a portion of its generation or demand response resources total capability to provide increased generation or load reduction for supplemental reserve service when instructed by MISO.

<u>Real-Time Regulation</u> represents an Asset Owner's compensation for any additional responsibility assigned for supplying regulation reserves in the real-time market or the charge for a reduction from the pre-determined Day Ahead responsibility for an asset due to co-optimization in the Real Time.

<u>Real-Time Spinning Reserve</u> represents an Asset Owner's compensation for any additional responsibility assigned for supplying spinning reserves in the real-time market or the charge for a reduction from the pre-determined Day Ahead responsibility for an asset due to co-optimization in the Real Time.

<u>Real-Time Supplemental Reserve</u> represents an Asset Owner's compensation for any additional responsibility assigned for supplying supplemental reserves in the real-time

<sup>&</sup>lt;sup>1</sup> An Asset Owner is an owner of any combination of assets (Generation Resource, Load Zone, and/or Demand Response Resource) and/or Financial Transmission Rights across any number of Control Areas. An Asset Owner must be represented by a single Market Participant to participate in the Midwest ISO Market. The Company is an Asset Owner under the TEMT.

market or the charge for a reduction from the pre-determined Day Ahead responsibility for an asset due to co-optimization in the Real Time.

## **Resource Energy Charges:**

<u>Non-Excessive Energy</u> represents an Asset Owner's credit or charge for net changes, within excessive energy thresholds, from the day ahead cleared energy for the generation and demand response resources owned by the Asset Owner.

<u>Excessive Energy</u> represents an Asset Owner's credit or charge for energy produced above excessive energy thresholds, for the generation and demand response resources owned by the Asset Owner.<sup>2</sup>

<u>Net Regulation Adjustment</u> compensates resources providing regulation service for energy output at levels where the LMP at the generator's pricing node does not cover the offer price. Both regulation-up and regulation-down deployments are considered under this charge type.

## **Ancillary Procurement Charges:**

<u>Regulation</u> represents the assignment of an Asset Owners share of the system procurement cost for all day-ahead and real-time regulation.

<u>Spinning Reserve</u> represents the assignment of an Asset Owners share of the system procurement cost for all day-ahead and real-time spinning reserve.

<sup>&</sup>lt;sup>2</sup> Non-Excessive and Excessive Energy replaces Real Time Asset Energy, a Day 2 energy market charge type, at generators. Real Time Asset Energy no longer contains generation deviations from Day Ahead to Real Time. MISO Day 2 recovery required net accounting of Real Time Asset energy amounts at the generation and load CP nodes to ensure proper fuel clause cost accounting. The creation of Non-Excessive and Excessive Energy requires the same approval to ensure generation costs are accounted for properly. Non-excessive energy is similar to real time asset energy in that it is the amount of energy produced that was requested by MISO and is paid LMP. Excessive energy is energy produced in excess of what was requested and is paid lower than the LMP. If one market participant is producing excessive energy, then another market participant must be "regulating down" to compensate for the excessive energy produced. In the most efficient operation of the market/grid, generators would produce exactly what is requested at that time.

<u>Supplemental Reserve</u> represents the assignment of an Asset Owners share of the system procurement cost for all day-ahead and real-time supplemental reserve.

# **Penalty Charge Types:**

<u>Regulation Penalty Amount</u> represents the charge to an Asset Owner that cleared regulation in the day-ahead or real-time market which did not follow instructions during regulation service deployment.

<u>Contingency Reserve Deployment Failure Penalty</u> represents the charge incurred by generation or demand response resources that fail to deploy contingency reserves at or above the contingency reserve deployment instruction.

## **ATTACHMENT 6**

# EXISTING MISO CHARGE TYPES MODIFIED/TERMINATED BY ASM IMPLEMENTATION

The implementation of the ASM Market will cause the replacement or modification of certain existing MISO Day 2 charge types that have been included in the Company's calculations under Fuel Clause Rider No. 1 and the Commission's April 7, 2005 Day 2 Order since April 2005. These modifications are outlined below.

<u>Real Time RSG First Pass Distribution Amount</u>: The Over Generation and Under Generation intermediate calculations have been replaced in the Energy and Ancillary Services market with a Net Excessive Energy and Net Deficient Energy volumes respectively. Where the Deficient Energy Amount is defined as an Asset Owner's credit or charge for energy produced below the deficient energy thresholds, for the generation and demand response resources owned by the Asset Owner.

<u>Price Volatility Make Whole Payment (PVMWP)</u>: This charge type compensates resources for costs associated to Day Ahead Margin Assurance Payment (DAMAP) and Offer Revenue Sufficiency Guarantee Payment (ORSGP). The PVMWP is the result of the adding the DAMAP (which compensates resources for eroded Day Ahead market margin based on following Midwest ISO directives) and the ORSGP (which is a bid cost guarantee above the Day Ahead market clearing price).

<u>Real-Time Revenue Sufficiency Make Whole Payment Amount</u>: This charge type has been expanded to include the Operational Reserve Availability cost for an asset owner such that the Asset Owner is guaranteed the production offer price for being selected during an hourly Reliability Assessment Commitment process.

## Day-Ahead Revenue Sufficiency Make Whole Payment Amount:

This charge type has been expanded to include the Operational Reserve Availability cost for an asset owner such that the Asset Owner is guaranteed the production cost for its Day Ahead unit commitment.

<u>Real-Time Revenue Neutrality Uplift Amount</u>: This is set up as a revenue distribution balancing mechanism for charges and credits that have no other distribution method to market participants. On an hourly basis, all charges and credits that have no other distribution method are summed, and the subsequent total charge or credit for the hour is distributed to market participants based on their Load Ratio Share. The net total amount corresponding on the following charges and/or credits are distributed through this charge type:

- Uninstructed Deviation Charge Distribution Uplift
- Revenue Inadequacy Uplift
- Joint Operating Agreement Uplift
- GFAOB FBT Congestion Rebate Distribution Amount Uplift
- Carve-Out GFA Congestion Rebate Distribution Amount Uplift
- Real-Time RSG MWPs Second Pass Distribution Uplift
- Real Time Contingency Reserve Deployment Failure Penalty Uplift Amount
- Regulation Penalty Uplift
- Real Time Price Volatility Make-Whole Payment Uplift

(Note that the last three components will be added with the MISO ASM implementation.)

<u>Real Time Asset Energy Amount</u>: This charge type has been contracted to only represent the deviation of load from the Day Ahead cleared volume to the Real Time metered actual value. This charge type no longer contains generation deviations from Day Ahead to Real Time as they are now captured in the Excessive and Non-Excessive charge types. <u>Real Time Uninstructed Deviation Amount</u>: This charge type will be discontinued at the start of the Energy and Ancillary Services market.

In addition to these changes in charge types under the MISO TEMT, the definition of Excessive Energy Thresholds has been modified to be a positive and negative 4% of the sum of a resource average dispatch target for energy and the resources average net regulation deployment instruction.

## **ATTACHMENT 7**

# ADDITIONAL MISO DAY 2 CHARGE TYPES IMPLEMENTED SINCE DAY 2 ORDER

The Commission approved Fuel Clause Rider No. 1 recovery of the various charge types originally comprising the MISO Day 2 energy market operations on an interim basis in the April 6, 2005 Interim Order. Since the advent of MISO Day 2 market start, MISO has implemented six additional charge types to refines the allocation of costs and revenues under the Day 2 market. The Company has recovered certain Day 2 market charge types through Fuel Clause Rider No. 1 pursuant to the Interim Order. However, certain other MISO Day 2 market charge types (and associated revenues) have not been reflected in Fuel Clause Rider. If the Commission grants the proposed accounting treatment of MISO ASM costs and revenues, the Company would also reflect certain MISO charge types and revenues in the Fuel Clause Rider effective March 1, 2009 or in base rates, as described below.

#### **Financial Transmission Rights:**

There are 3 new MISO charge types associated with the Day 2 market starting with the operating day of January 1, 2008. These are:

#### Financial Transmission Rights Full Funding Guarantee Amount:

The Financial Transmission Rights Full Funding Guarantee Amount consists of three components – Hourly, Monthly and Yearly. The Hourly component is the compliment to the actual value of the FTRs determined in the hourly process (FTR hourly allocation) to bring the total to the target value (100% funding). The monthly and yearly components are true-up adjustments to keep the asset owner at 100% funding.

## Financial Transmission Guarantee Uplift Amount:

The Financial Transmission Guarantee Uplift Amount distributes the cost of the Full Funding Guarantee to asset owners on a pro rata basis by their total credit target FTR value for the period. On an hourly basis this results in a charge equal and opposite to the Full Funding Guarantee credit the asset owner received. On a monthly and yearly basis the uplift is adjusted such that the amount paid by an asset owner is proportional to its total FTR credit target allocation for the period. Since this is a difference basis than the monthly and yearly FTR funding true-ups, this may result in an asset owner bearing a larger portion of the cost than it received in the funding guarantee itself from the period.

## Financial Transmission Rights Monthly Transaction Amount:

The Financial Transmission Rights Monthly Transaction Amount is used to settle and invoice FTR purchases and sales from each monthly auction. It appears that the FTR monthly transaction amount charge type will be replacing the FTR transaction amount charge type. It appears that potentially the new FTR monthly transaction amount might be replaced with the ARR – FTR auction transaction charge type. Unless the purpose of the FTR monthly transaction amount is for the purchase and sale of FTR's between market participants outside of the auction process.

Since the new FTR charge types are similar to the FTR charge types allowed to be included in Fuel Clause Rider No. 1 under the Day 2 Order, the Company has included these FTR charge types in Fuel Clause Rider since January 1, 2008.

### **Auction Revenue Rights:**

In addition to FTRs, MISO has now modified the Day 2 energy market to establish Auction Revenue Rights ("ARRs"). ARRs are allocated to market participants (such as the Company) based on firm historical usage of the transmission system. They entitle the holder to a share of the FTR auction revenue in the form of revenues or charges based on the clearing price of the ARR path. ARRs are financial instruments, not physical rights.

ARRs will provide a market participant with the dollar amount required to purchase those FTRs in the FTR auction needed to hedge against congestion in the Day-Ahead market. ARRs are acquired through the ARR allocation. The FTR Transaction charge type will remain to cover purchase and sale transactions made related to regular FTRs during non-yearly auctions.

Four new MISO charges types related to ARRs began on June 1, 2008:

<u>ARR – FTR Auction Transactions</u>: Proceeds/costs of self-scheduled and purchased/sold FTRs in the yearly FTR auction.

<u>Monthly ARR Revenue</u>: This will allow for the distribution of ARR revenue that could be a charge or credit.

*Infeasible ARR Uplift*: Uplift of infeasible ARRs to Long Term Transmission Right holders.

<u>ARR Stage 2 Distribution</u>: Distribution of excess revenue that is present after funding the feasible ARRs that goes to fund stage 2 ARRs (when applicable).

Since the ARR charge types were implemented in June 1, 2008, the Company has been a net recipient of ARR revenues. Since the ARR charge types were not discussed in the Company's Petition in Docket No. EL05-008, the Company has not reflected ARR revenues in Fuel Clause Rider to date. The Company proposes Fuel Clause Rider treatment of ARR costs and revenues effective March 1, 2009.

## Schedule 24 charges:

On June 1, 2006, after the MISO Day 2 market start, MISO implemented three additional charges related to Schedule 24. Balancing Authorities (including the Company) were allowed to recover labor and material costs incurred as a result of implementing and

operating in the Day 2 market. Charges are assessed to market participants based on their activity in the day-ahead and real-time markets. From June 2006 through February 2008, the market wide rate averaged \$0.0115 per MWh, with a maximum of \$0.0135 and a minimum of \$0.0093).

<u>Day-Ahead Schedule 24 Allocation Amount</u> – is the amount charged to the market participant based on their Day Ahead injections and extractions from the market Cleared Load and Generation Volume.

<u>Real-Time Schedule 24 Allocation Amount</u> – is the amount charged to the market participant based on their Real Time Admin Volume.

<u>Real-Time Schedule 24 Distribution Amount</u> – is the amount refunded to the market participant based on the amount collected from all market participants. The amount refunded based on the individual market participants expenses relative to total market participants' expenses.

Since Schedule 24 was implemented in June 2006, the Company has been a net recipient of Schedule 24 revenues (e.g., Schedule 24 revenues paid to the Company's Balancing Authority function exceed the Schedule 24 charges paid by the Company for its market activities). Since the Schedule 24 charge types were not discussed in the Company's Petition in Docket EL05-008, the Company has not reflected Schedule 24 revenues or expenses in Fuel Clause Rider to date. The Company proposes Fuel Clause Rider treatment of Schedule 24 costs and revenues effective March 1, 2009.