UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Suedeen G. Kelly, Marc Spitzer,
and Jon Wellinghoff.

Midwest Independent Transmission System Operator, Inc.	Docket Nos. ER04-691-075 EL04-104-067 ER04-691-071 EL04-104-065

ORDER ON COMPLIANCE FILINGS

(Issued November 1, 2006)

1. On March 27, 2006, as supplemented on June 8, 2006, the Midwest Independent Transmission System Operator, Inc. (Midwest ISO) submitted a filing to update the Commission on its analysis of marginal loss surplus data.[1] The Midwest ISO states that it is unable to provide the data and perform the analyses requested on marginal loss surplus refunds for certain market participants since its data and systems are unable to match specific buyers with specific sellers, or estimate losses on this basis, and it does not allocate marginal losses or average losses by market participant.

2. This order accepts Midwest ISO's filings and directs Midwest ISO to submit a further filing analyzing the method proposed by intervenors for determining refunds of over-collected marginal losses.

I. Background

3. On August 6, 2004, the Commission approved Midwest ISO's Open Access Transmission and Energy Markets Tariff (TEMT or tariff), that was designed to initiate

[1] Marginal loss surplus, also referred to as over-collected marginal losses, is the difference between marginal losses and average losses that is refunded to load.

Day 2 operations in Midwest ISO's 15-state region.[2] Midwest ISO's Day 2 operations include, among other things, a refund to load of the difference between marginal losses and average losses, *i.e.*, a refund of the excess or surplus of marginal losses over average losses, during a five-year transition period.

4. Specifically, the TEMT II Order, among other things, directed Midwest ISO to file a transitional marginal loss surplus refund method within 60 days,[3] and, after consultation with stakeholders, file a revised marginal loss surplus refund method within 270 days from market start based on experience with the energy markets during that period.[4]

5. On October 5, 2004, Midwest ISO made a compliance filing (October 5 Filing) in response to the TEMT II Order's various 60-day requirements, including those relating to the marginal loss surplus refund method. In that October 5 Filing, Midwest ISO proposed a marginal loss surplus refund method based on Balancing Authority Areas[5] rather than through previously proposed "loss pools."[6] On December 20, 2004, the Commission issued an order conditionally accepting Midwest ISO's October 5 Filing. The Commission found that refunds of marginal loss surplus on a Balancing Authority Area basis have greater granularity than the previous "loss pools" approach. The Commission determined that Midwest ISO's proposal was consistent with the goal of

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[2] *Midwest Independent Transmission System Operator, Inc.*, 108 FERC ¶ 61,163 (TEMT II Order), *order on reh'g*, 109 FERC ¶ 61,157 (2004) (TEMT II Rehearing Order), *order on reh'g*, 111 FERC ¶ 61,043 (2005) (Compliance Order III). The TEMT defines "Transmission Provider" as Midwest ISO or any successor organization. *See* Module A, section 1.320, Original Sheet No. 133. For clarity, we will refer to Midwest ISO wherever the TEMT refers to the Transmission Provider.

[3] TEMT II Order at P 73-74.

[4] TEMT II Order at P 79, 239, 649.

[5] Sections 1.17 and 1.18 of the TEMT define the phrase "Balancing Authority Areas" to mean a collection of resources, transmission systems and loads within the metered boundaries of a Balancing Authority. A Balancing Authority maintains resource to load interchange balance within a Balancing Authority Area and supports interconnection and frequency in real-time. Midwest ISO FERC Electric Tariff, Third Revised Volume No. 1, Fifth Revised Sheet No. 51.

[6] October 5 Filing at 6-8.

protecting participants from charges in excess of their average actual losses, had stakeholder support, and could be implemented. The Commission, however, expressed concern about market participants with remote generation outside the territory of the Balancing Authority Area may not be eligible for a sufficient refund share based on a load ratio share calculation and directed Midwest ISO to explain its method for determining the marginal loss surplus for such entities.[7]

6. On January 21, 2005, Midwest ISO made a compliance filing to address the additional requirements of Compliance Order I. On April 15, 2005, the Commission issued an order that addressed rehearing requests of Compliance Order I and Midwest ISO's January 21, 2005 compliance filing.[8] The April 15 Order reiterated the requirement that Midwest ISO had to submit within 270 days from market start a filing that provides data on losses among market participants within Balancing Authority Areas based on the first six months of market experience. In addition, the Midwest ISO was directed to include tariff revisions designed to redress any identified cross-subsidies.

7. On December 27, 2005, Midwest ISO submitted a filing (December 27 Filing) in order to comply with the 270-day filing requirements of the TEMT II Order and the April 15 Order. In the December 27 Filing, Midwest ISO stated that it would complete its analysis of marginal loss surplus data, hold additional stakeholder meetings, assess the necessity of tariff revisions, and submit additional information to the Commission within the next 90 days.

II. Midwest ISO's Compliance Filings

8. On March 27, 2006, as supplemented on June 8, 2006, in response to a staff deficiency letter, the Midwest ISO made a filing in further compliance with the TEMT II and April 15 Orders. In its filing, the Midwest ISO states that it has continued to review, with stakeholder input, the data relevant to the refund of marginal loss surplus. The Midwest ISO indicates that stakeholder discussions focused on errors in the calculation of over-collected marginal losses refunded to customers. Midwest ISO states that it has corrected such errors and revised the affected settlement statements. These revisions, Midwest ISO asserts, caused it to reassess the marginal loss surplus data.

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[7] *See Midwest Independent Transmission System Operator, Inc.*, 109 FERC ¶ 61,285 at P 171-72 (2004) (Compliance Order I).

[8] *Midwest Independent Transmission System operator, Inc.*, 111 FERC ¶ 61,053 (2005) (April 15 Order).

9. Midwest ISO claims that its analysis showed that the current method of distributing revenue using marginal losses for dispatch and pricing distributes more revenue to Balancing Authority Areas where losses, as reflected in the marginal loss component of the locational marginal price (LMP), tend to be higher. Midwest ISO also contrasted the distribution of refunds under the current methodology with the distribution under a load ratio share methodology. Based on the results of its analysis, including the demonstration that the settlement results are producing outcomes consistent with the intent of the current methodology, Midwest ISO did not propose changes to the current methodology. Midwest ISO also confirms that it will continue to evaluate losses distributions, notify stakeholders of the results of this evaluation, and follow-up with any tariff changes related to losses necessitated by this ongoing analysis.

10. In addition, Midwest ISO provides an evaluation of the amount of revenue associated with losses available for redistribution. Based on this evaluation, Midwest ISO asserts that the interaction between the day-ahead and real-time energy markets and differences in the modeling of marginal losses can result in a divergence between expected and actual losses revenue.

11. The Midwest ISO also stated that its systems are unable to track losses in MWh terms,[9] and that it cannot otherwise estimate adequate and reliable market participant-specific data on marginal, average or actual losses. Midwest ISO administers energy markets and not a system of bilateral trades. According to Midwest ISO, loads (and other demand) buy energy from the market and generators (and other suppliers) sell energy into the market but a specific buyer is not matched to a specific seller. Consequently, Midwest ISO claims that its systems were not designed to track which load is buying from which source, and what losses are caused on the margin.

12. Midwest ISO notes that the current system allows, but does not require, market participants to use financial schedules. Midwest ISO argues that financial schedules should not be used to pair load and supply for purposes of loss calculation, however, because they are purely financial transactions among market participants. According to Midwest ISO, financial schedules do not result in measurable, physical losses on the system, and cannot provide a basis to determine the physical marginal losses caused by

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[9] According to Midwest ISO, its systems neither monitor nor document physical losses by market participant on a MWh basis. *See* June 8 Filing at 2 - 4.

each market participant. In effect, Midwest ISO maintains that financial schedules may transfer responsibility for marginal loss and marginal congestion charges between market participants, but they do not create physical losses or congestion.

13. In light of the financial nature of Midwest ISO's market design, Midwest ISO explains that it does not allocate marginal losses or actual losses by market participant. Rather, according to Midwest ISO, section 40.6 of its TEMT allocates the marginal loss surplus revenue to each market participant in each Balancing Authority Area by load ratio share after there is an initial allocation of the total marginal loss surplus revenues among the Balancing Authority Areas as individual loss pools. According to Midwest ISO, the surplus revenues are allocated based on dollar amounts and not MWhs.

14. Midwest ISO further states that due to the lack of market participant-specific MWh data, it cannot determine whether or not there is any cross-subsidization, and/or whether or not individual market participants are exposed to marginal losses that exceed average losses. Midwest ISO also explains that it is not possible to derive an accurate marginal loss surplus from LMP market data since data on energy costs[10] does not reflect the additional real-time generation required to provide power for additional losses caused by the day-ahead schedules. Midwest ISO reiterates that it continues to study potential improvements to its loss calculation processes based on data available under its market design. Midwest ISO states that if it identifies cross subsidies based on reliable alternative data and analyses, it will propose appropriate tariff revisions to the Commission.

III. Notice, Interventions and Protests

15. Notice of Midwest ISO's March 27 Filing was published in the *Federal Register*, 71 Fed. Reg. 24,669 (2006), with interventions and protests due on or before April 26, 2006. Notice of Midwest ISO's June 8 Filing was published in the *Federal Register*, 71 Fed. Reg. 55,460 (2006), with interventions and protests due on or before than July 3,

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[10] To calculate the marginal loss surplus from LMP data, marginal losses would be multiplied by the cost of energy, or marginal energy cost, in the day-ahead and real-time markets. *See* June 8 Filing at 7.

2006. The Midwest Transmission-Dependent Utilities (Midwest TDUs)[11] and Wisconsin Public Service Corporation (WPSC) and Upper Peninsula Power Company (UPPCO) (collectively, the WPS Companies) filed timely protests to both filings.

IV. Discussion

A. Protests

16. Midwest TDUs assert that the filing failed to consider whether there are different losses among market participants within a Balancing Authority Area or the possibility that these differences could result in cross-subsidies. According to Midwest TDUs, the subject that the Midwest ISO studied, *i.e.*, whether losses should be allocated on region-wide load-ratio shares, is not relevant to the determination of whether smaller load serving entities (LSEs) with remote resources are being discriminated against in the current system when compared with the large control-area operators with which they are pooled. Furthermore, Midwest TDUs reiterate that they are not satisfied with the current approach, and they assert that Midwest ISO has not complied with the April 15 Order, which, among other things, directed Midwest ISO to make a filing that provides data on losses among market participants within Balancing Authority Areas, based on the first six months of market experience.[12]

17. Midwest TDUs argue that Midwest ISO's non-responsiveness supports an adverse inference that the current marginal loss surplus refund is tainted by significant discrimination and cross-subsidization, and that LSEs who serve their load with distant-owned or committed-purchase generation actually incur sharply higher loss rates.

18. Midwest TDUs indicate that one member, Missouri River Energy Services (MRES), determined that it made $1.8 million in marginal loss payments for the first year of Midwest ISO's energy market operations, and that its average losses should have been

[11] For purposes of this proceeding the Midwest TDUs are: Great Lakes Utilities, Indiana Municipal Power Agency, Lincoln Electric System, Madison Gas and Electric Company, Midwest Municipal Transmission Group, Missouri Joint Municipal Electric Utility Commission, Missouri River Energy Services, Southern Minnesota Municipal Power Agency, Upper Peninsula Transmission Dependent Utilities, and Wisconsin Public Power Inc.

[12] April 15 Order at P 51.

$0.9 million using the two-for-one marginal-losses-to-average-losses relationship cited by Midwest ISO.[13] However, MRES maintains that it received refunds of less than $0.5 million, resulting in a refund shortfall or deficit of more than $0.425 million. Midwest TDUs assert that a more extensive analysis would find that these discriminatory disparities are pervasive. Midwest TDUs recommend that the Commission direct Midwest ISO to refund to each LSE transmission customer, with interest, one-half of the marginal loss charges that were charged and to continue this level of refunds through the remainder of the five-year transition period. Midwest TDUs contend that the effective date for refunds compliance should be December 27, 2005 and no later than March 27, 2006.

19. According to Midwest TDUs, there is no evidentiary basis to conclude that issuing refunds that bring each LSE to this one-half level would leave Midwest ISO in need of another revenue stream to cover the interaction of day-ahead and real-time markets, as Midwest ISO suggests. However, they argue, if such revenue is required, the Commission should direct Midwest ISO to make a rate filing for this proposed revenue computation and allocation.

20. The Midwest TDUs note that, although Midwest ISO claims that it cannot track data in MWh terms since it tracks the energy transactions in dollar terms, Midwest ISO failed to provide the available financial information in dollar terms. If the analysis required estimation or had to be done in dollars rather than in MWhs, then Midwest TDUs assert that Midwest ISO should have informed the Commission and conducted the analysis using financial data. Midwest TDUs argue that Midwest ISO has LSE-specific information on dollar charges for marginal losses given that is what Midwest ISO billed. According to Midwest TDUs, Midwest ISO has, but has not provided, information on whether Midwest TDUs, and other small entities that depend disproportionately on generation located outside their host control areas, are paying more for marginal losses than they did or would pay for historic or current average losses. Furthermore, Midwest

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[13] The two-for-one relationship refers to the two-for-one relationship between marginal and average losses that result from a calculation of losses in a simplified network model for a single energy market with no loop flows or inadvertent energy. This method of determining the marginal loss surplus refund was applied to so-called Option B grandfathered agreements (GFAs). Parties to these agreements elected to participate in the Midwest ISO energy markets and receive refunds for the cost of marginal losses and congestion. *See Midwest Independent Transmission System Operator, Inc.*, 108 FERC ¶ 61,236 (2004), *order on reh'g*, 111 FERC ¶ 61,042 (2005), *order on reh'g*¸112 FERC ¶ 61,311 (2005).

TDUs assert that Midwest ISO should be able to convert these dollar charges to MWhs, or at least provide an estimate based on procedures found in the Business Practices Manual.[14]

21. In response to Midwest ISO's assertion that the marginal loss surplus is being used, in part, to cover costs associated with loop flows and inadvertent energy,[15] Midwest TDUs argue that Midwest ISO has not provided sufficient evidence that it is just and reasonable to cover costs associated with loop flows and inadvertent energy by charging market participants based on their marginal loss payments. Midwest TDUs assert that loop flow costs are, by definition, imposed on market participants by unidentified non-participants, and cannot be avoided or controlled by market participant discretionary action. As such, Midwest TDUs argue that they are strong candidates for a general uplift. Similarly, Midwest TDUs note that the causation of inadvertent energy is unrelated to the causation of marginal losses, and should not be funded by market participants in proportion to their marginal loss payments.

22. Similarly, WPS Companies state the TEMT II Order required Midwest ISO to develop a methodology to refund the difference between marginal and average losses. WPS Companies assert that they are receiving a substantially smaller refund than is required by Commission orders and the TEMT. WPS Companies provide an example of the inadequate refund of over-collected losses by asserting that WPSC should have received a marginal loss surplus refund of about $20.8 million. If Midwest ISO's two-to-one rule is applied, WPSC would have received a marginal loss surplus refund of $17.7 million. Instead, WPSC received a marginal loss surplus refund of $7.3 million – less than half of the refund required by the TEMT and Commission orders.

23. WPS Companies assert that the Commission required the refund of over-collected marginal losses be to the over-paying market participants for the duration of the transition period, and that any other use of these funds is an impermissible cross subsidization. Recognizing that Midwest ISO, a not-for-profit regional transmission organization, is designed to operate with zero net revenues after all expenses are paid, WPS Companies argue that the revenues associated with over-collected marginal losses that were not paid out to the over-paying market participants had to go somewhere. Since, shortly after the start of Day 2 markets, Midwest ISO decided to combine marginal loss surplus refund revenue with other cost uplift mechanisms, WPS Companies suspect that the marginal

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[14] *See* Midwest ISO's Business Practices Manual at 4-3.

[15] *See* June 8 Filing at 7-8.

loss surplus refund revenues not refunded reduced the payments that all market participants make to offset other cost uplifts. Without detailed information from Midwest ISO, however, WPS Companies argue that market participants cannot determine the specifics of these funding mechanisms.

24. WPS Companies assert that the Commission directed Midwest ISO to develop a single methodology for the refund of the difference between marginal and average losses and to file tariff sheets implementing the transitional loss calculation measure and refund mechanism.[16] They note that Midwest ISO acknowledged in its January 19, 2005 compliance filing and again in its December 27, 2005 Filing that it had not yet complied with the directive. WPS Companies recommend that the Commission require Midwest ISO to comply with the filing requirement imposed during the summer of 2004 and that the provisions in the Business Practices Manuals for calculating and allocating over-collected marginal losses revenues qualify for inclusion in the tariff.

B. Analysis

25. In Compliance Order I, the Commission determined that Midwest ISO's method for allocating the refund of marginal loss surplus revenue is just and reasonable and is a better allocation than the previous method.[17] We note the advantage of Midwest ISO's method is that customers in Balancing Authority Areas that have the highest actual losses will receive a greater proportion of the marginal loss surplus revenue than customers in Balancing Authority Areas with relatively lower actual losses,[18] and that the method is achieving the desired objective according to Midwest ISO's analysis. The Commission has not determined that the current Midwest ISO method is unjust or unreasonable. Rather, the Commission requested Midwest ISO to determine if the refund method could be further refined to address losses incurred by market participants that have distant generation in a different Balancing Authority Area than their load.

26. The Midwest ISO's filings indicate that the data is not available to further refine the marginal loss surplus refund method. We recognize that Midwest ISO is confronted with the problem that energy market transactions are not "paired." In other words, there is no information that identifies the discrete generation source(s) that serves the discrete

[16] *See* TEMT II Order at P 75; *Midwest Independent Transmission System Operator, Inc.,* 109 FERC ¶ 61,285 at P 175 (2004).

[17] *See* Compliance Order I at P 171.

[18] *See* Compliance Order I at P 160.

load(s) for each transaction, and therefore information from the energy market does not track physical losses. As well, Midwest ISO cannot derive an accurate marginal loss surplus from LMP market data since data on energy costs does not reflect the additional real-time generation required to provide power for additional losses caused by the day-ahead schedules. Accordingly, in response to the Midwest TDUs, we do not see a basis to draw an adverse inference from Midwest ISO's responses. Rather, Midwest ISO has attempted to provide the information requested, and an explanation why the available information is not suitable.

27. While protestors argue for the use of other methods, we note these alternative methods are also problematic. For example, while the two-to-one ratio was found appropriate for Option B market participants since all their transactions occur in the day-ahead market and are therefore unaffected by the day-ahead and real-time market interactions discussed above, that ratio may not be appropriate for market participants transacting in both the day-ahead and real-time markets. For these latter market participants, the impacts of real-time adjustments to day-ahead schedules, such as changes in generation sources in real-time, may result in marginal losses not tracking average losses in a straight-forward manner. We therefore have no basis to conclude that variations between the day-ahead and real-time markets will net out over an extended period, such as a year.

28. We will, however, require Midwest ISO to analyze the marginal loss surplus refunds calculated by the Midwest TDUs and WPS Companies in their filings and report their findings in a filing with the Commission within 90 days of this order. As well, these market participants should provide Midwest ISO with information explaining their assumptions and methods used to derive the figures quoted in their filings. To the extent Midwest ISO finds their methods acceptable for calculating the marginal loss surplus refunds, we direct Midwest ISO to determine if that method could be applied to all market participants and would result in a more equitable allocation of marginal loss surplus refunds than the current allocation.

29. We will not require refunds back to market start. As discussed above, the Commission has determined that the current Midwest ISO allocation method is just and reasonable. While a refined allocation to certain market participants with distant generation would be ideal, there is no data supporting a conclusion these customers are not receiving an equitable refund as discussed above.

30. We have reviewed the tariff sheets that detail the marginal loss surplus refunds and find they describe the refund calculation, and do not reference formulas or calculations in the Business Practices Manuals, and therefore comply with previous Commission orders.

31. We find the reporting requirements on the use of marginal loss surplus revenues, raised by WPS Companies, to be beyond the scope of this proceeding.

The Commission orders:

(A) The March 27 and June 8 Filings are hereby accepted.

(B) Midwest ISO is hereby directed to submit a compliance filing consistent with the discussion in the body of the order, within 90 days of the date of this order.

By the Commission. Commissioner Moeller not participating.

(S E A L)

Magalie R. Salas,
Secretary.