



# NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

Princeton Forrestal Village, 116-390 Village Boulevard, Princeton, New Jersey 08540-5731

October 11, 2004

## ELECTRONIC FILING

The Honorable Magalie R. Salas, Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

Dear Secretary Salas:

### **NERC Transmission Line Loading Relief (TLR) Procedure Docket No. ER00-1666-000**

This letter explains NERC's extension of the effective period for test revisions to its TLR Procedure on specific Alliant West area<sup>1</sup> flowgates to March 31, 2005. The test revisions were contained in a final report of the NERC Alliant West TLR Task Force ("AWTTF") that NERC submitted in this docket on April 2, 2004 (Attachment A).

The test revisions were implemented<sup>2</sup> in the Alliant West area during an initial test period from June 1, 2004 to September 30, 2004. This extension of the test period will provide the NERC Long-Term AFC/ATC Task Force ("LTATF") additional time to gather data to help determine whether a change in certain TLR procedures and algorithms would alleviate equity impacts in the Alliant West area.

Since the AWTTF recommendations were implemented on June 1, 2004, Alliant West has only experienced one TLR 5 event requiring the use of the 3% test threshold for the eight Alliant West flowgates referenced in the recommendations. Although the flow patterns have changed due to better water conditions in the Manitoba Hydro region, the LTATF, which was charged with reviewing the AWTTF recommendations, believes that the enhanced communication and coordination called for in the recommendations have also contributed to the large reduction in TLRs. However, the LTATF needs to accumulate additional experience to evaluate the impact of the recommendations under the new flow conditions.

This extension is also coordinated with the planned date for the LTATF report to the NERC standing committees in March 2005. NERC anticipates that the LTATF report will provide a final review of the disposition of the AWTTF recommendations, as well as other suggested solutions (e.g., Standards

---

<sup>1</sup> The Alliant West area is located in the central and eastern Iowa portions of the Interstate Power and Light Company.

<sup>2</sup> The test-period implementation was limited to the eight (8) Alliant West flowgates identified in the report.

Authorization Requests or proposed business practices for ATC/AFC calculations and communication, or some combination of the two).

Recommendation number six of the AWTF final report addressing TLR implementation applies to a subset of four Alliant flowgates.<sup>3</sup> During the extended test period, the following TLR procedures would be used in lieu of the TLR procedure on file with the Commission for that subset of flowgates:

1. TLR Level 3 procedures will be used as they exist today to curtail non-firm transactions, including appropriate Level 4 reconfiguration.
2. If overloads still exist after step 1, prior to initiating TLR Level 5, proceed to curtail remaining non-firm transactions (including Non-designated Network Resource 6-NN) using **3% as the curtailment threshold**.
3. After step 1 and step 2, if overloads still exist, initiate Level 5 under current TLR procedures using a 5% threshold.

NERC will prepare a report documenting the results observed during the test period for presentation to the NERC standing committees at their November 2004 and March 2005 meetings. NERC will also provide the Commission a summary of the results of the extended test period following those meetings.

NERC has provided a copy of the report and this letter to all interested entities. NERC has also included a draft notice suitable for publication in the *Federal Register* (Attachment B). Please contact me if you have questions or need additional information. Thank you.

Sincerely,



David N. Cook  
Vice President and General Counsel

---

<sup>3</sup> The four flowgates are identified in the report.



**NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL**

---

Princeton Forrestal Village, 116-390 Village Boulevard, Princeton, New Jersey  
08540-5731

# **ALLIANT WEST TLR TASK FORCE**

## **FINAL REPORT**

### **MARCH 26, 2004**

## Table of Contents

<b>Executive Summary and Recommendations .....</b>	<b>1</b>
<b>Background .....</b>	<b>4</b>
<b>Formation of the Alliant West TLR Task Force .....</b>	<b>4</b>
<b>Alliant West TLR Task Force Analysis .....</b>	<b>5</b>
<b>Minority Opinions .....</b>	<b>7</b>

### **Appendix A**

AWTTF Roster

### **Appendix B**

AWTTF Survey

AWTTF Follow-up Questionnaire

### **Appendix C**

Long-term Recommendations

### **Appendix D**

NERC Presentation to November 2003 Standing Committees

Alliant Presentation to November 2003 Standing Committees

MISO Presentation to November 2003 Standing Committees

SPP Presentation to November 2003 Standing Committees

### **Appendix E**

Initial Letter from Alliant

Response Letter from NERC

Response Letter from MISO

Response Letter from MAIN

Clarification Letter from MAIN

## EXECUTIVE SUMMARY

The Alliant West TLR Task Force (AWTTF) was created during the November 2003 Standing Committee meetings to develop specific recommendations for market and operating practices to address problems associated with TLR<sup>1</sup> curtailments in the Alliant West region expected in summer 2004. Asked to report back with their recommendations to the standing committees during the March 2004 meetings, the AWTTF immediately began to lay the groundwork for their assignment, and enlisted a broad range of experts to complete its work.

Some of the mechanisms the task force evaluated included whether better methods could be employed to coordinate the calculation of available transfer capabilities used to schedule transmission sales, and whether changes should be made to the threshold limits used in the IDC<sup>2</sup>. Additional consideration was given to the treatment of grandfathered transactions, rollover rights, and the impacts of parallel flows.

This report includes both short and long term recommendations. The short-term recommendations are intended for implementation in the Alliant West area by June 1, 2004. The three standing committees are asked to approve each of the six AWTTF short-term recommendations during their respective March 2004 committee meetings. The long-term recommendations are included in an appendix for further consideration by the standing committees. Steven Dayney, chairman of the AWTTF, will lead the discussion on this item at those meetings.

**[Action]** *APPROVE the short-term AWTTF recommendations included below for implementation from June 1, 2004 – Sept.30, 2004 (the recommendations have been assigned categories for ease of reference only).*

### I. Emergency Redispatch

For the identified Alliant West flowgates<sup>3</sup>, the reliability coordinators shall identify key redispatch combinations and develop operating procedures that would relieve the defined Alliant West flowgate constraints in the event emergency redispatch was quickly needed to prevent an imminent threat of collapse, cascading or significant loss of load.

### II. Planning

Alliant and MISO should ensure that planning studies are underway to identify what transmission facilities would need to be upgraded or added to accommodate known firm transactions and reliability needs in the Alliant West area.

### III. Source and Sink Points

- a. Within 10 days following a TLR level 5 or higher MISO shall work with other transmission providers to investigate all transaction pairs within the IDC having an impact of 3% or greater on the designated Alliant West flowgate that exist each hour of the TLR 5. The NERC TLR report will, for each schedule flowing during TLR 5, give evidence that generators designated for the schedule through the approval process that were specified as a POR were actually on line delivering sufficient energy for the schedule(s), at the time of the TLR5.
- b. If the unit that was designated as part of the schedule was not on line, the Midwest ISO shall request and report the response of the entity responsible (PSE, TP, etc) for the schedules as to what the actual source of the schedule was at the time of the TLR.

---

<sup>1</sup> TLR - Transmission Loading Relief

<sup>2</sup> IDC – Interchange Distribution Calculator

<sup>3</sup> Specific Alliant West flowgates, along with responsible transmission providers and reliability coordinators, are listed on page 3.

**IV. AFC Coordination**

- a. Updated Alliant West flowgate AFC<sup>4</sup> values will be made available (was scheduled for implementation by March 10<sup>th</sup>) by MISO as follows:
  - i. For hourly, once per hour.
  - ii. For daily, once per hour (calculated four times per day)
  - iii. For monthly, once per hour (calculated twice a month)
- b. For the evaluation of transmission service requests, the identified transmission providers should utilize the updated AFC from MISO at the frequency noted below:
  - i. For hourly, once per hour.
  - ii. For daily, once per day
  - iii. Monthly, once a week

For those transmission providers that cannot meet the recommended frequency, provide an indication to NERC of why and what is possible by June 1, 2004, and when they would anticipate being able to fully meet the recommended frequency<sup>5</sup>.

- c. Transmission providers shall not approve additional hourly, non-firm transmission during the expected remaining duration of a TLR Level 3 or higher curtailment, or until the TLR Level 3 or higher has ended, for those reservations that negatively impact (3% or greater) the designated Alliant West flowgates. This requires that transmission providers recognize the hourly AFC / ATC<sup>6</sup> values provided by MISO during TLR level 3 or higher.

**V. Monitoring**

The transmission providers listed on page three must monitor the identified Alliant West flowgates using a 3% OTDF threshold, unless MISO agrees that it is not required. AFCs will be provided for these flowgates by MISO and those AFC values must be implemented in any AFC/ATC calculation process and transmission service request evaluation process of the transmission providers specified below.

For those transmission providers that cannot meet the monitoring request, provide an indication of why and what is possible by June 1, 2004, and when they would anticipate being able to fully meet the recommended monitoring.

**VI. NERC IDC Tool and Policy<sup>7</sup> (for a test period of June 1, 2004 to September 30, 2004)**

- Step 1. TLR Level 3 procedures will be used as it exists today to curtail non-firm transactions, including appropriate Level 4 reconfiguration
- Step 2. If overloads still exist after step 1, prior to going to TLR Level 5, proceed to curtail remaining non-firm transactions (including Non-designated Network Resource 6-NN) using 3% as the threshold.
- Step 3. After step 1 and step 2, if overloads still exist, initiate Level 5 under current TLR procedures using a 5% threshold

<sup>4</sup> AFC – Available Flowgate Capacity

<sup>5</sup> The minimum value ATC calculations frequency as specified in NERC Planning Standards are:

*“TTC and ATC values and postings within the current week be determined at least once per day, that daily TTC and ATC values and postings for day 8 through the first month be determined at least once per week, and that monthly TTC and ATC values and postings for months 2 through 13 be determined at least once per month”.*

<sup>6</sup> ATC – Available Transfer Capacity

<sup>7</sup> For the first four flowgates listed on page 3

The AWTTF determined that the flowgates to be considered for these short-term recommendations would be:

Flowgate	Flowgate Name	Description
3719	Salem 345/161 Quad Cities-Sub 91	Salem 345/161 kV transformer for loss of Quad Cities-Sub 91 345kV line
3736	Salem 345/161 flo Wempleton-Paddock 345	Salem 345/161kV transformer for loss of Wempleton-Paddock 345kV line
3724	Arnold-Vinton 161 for D.Arnold-Hazelton 345	D. Arnold-Vinton 161kV line for loss of D. Arnold-Hazleton 345 kV line
3707	Lor5-Trk Riv5 161KV/Wempl-Paddock 345KV	Lore-Turkey River 161 kV line for loss of Wempleton-Paddock 345 kV line
11766	Hillsie 345/161 (flo) Tiffin-Duane Arnold 345	Hills_IE 345/161 kV transformer for loss of Tiffin-D. Arnold 345 kV line
3727	Lakefield-Fox Lk 161 for Lakefield-LGS 345	Lakefield-Fox Lake 161kV line for loss of Lakefield-LGS 345 kV line
3704	Poweshiek-Reasnor 161 for Montezuma-Bondurant 345	Poweshiek-Reasnor 161kV line for loss of Montezuma-Bondurant 345kV line
3735	Wisdom-Triboji 161 flo Raun-Lakefield 345	Wisdom-Triboji 161kV line for loss of Raun-Lakefield 345kV line

The reliability coordinators to be included in these short-term recommendations are:

- MISO
- SPP
- MAIN
- PJM

The transmission providers (TPs as of March 10, 2004) to be included in these short-term recommendations are:

- MISO
- non-MISO MAPP members
- non-MISO MAIN members
- PJM
- SPP
- AECI
- Grid America

**[ACTION]** *The committees should determine whether the long-term recommendations contained in the appendix should be further developed as Phase II of this effort and assign the appropriate working group(s) or task force(s).*

## Background

On September 9, 2003, Eliot Protsch, president of the Interstate Power and Light (Alliant), wrote<sup>8</sup> to NERC and the Midwest ISO (MISO) about Alliant's concerns regarding the transmission reservation coordination process used by various transmission service providers and the resultant equity impacts of the lack of coordination when transmission congestion develops. Alliant noted that it "has borne the operational consequences and the significant costs of TLR's," resulting from this less than desirable level of coordination between entities selling transmission service because the transmission system is over subscribed.

Furthermore, Alliant stated, "... the NERC IDC does not adequately curtail transactions that are significantly and negatively affecting Iowa." The Alliant letter suggested several areas where policy, procedures, and processes could be improved to resolve their concerns.

MISO, MAIN, and NERC individually responded to Mr. Protsch. NERC's response<sup>9</sup> noted the work of the Proxy Flowgate Task Force (a task force of the Operating Committee's Operating Reliability Subcommittee) and the IDC Granularity Task Force, also an Operating Reliability Subcommittee task force. In addition, NERC noted that development of the Coordinate Interchange Standard, and NAESB's efforts to develop associated companion business practices.

The MISO response<sup>10</sup> noted its efforts to improve Available Transmission Capacity or Available Flowgate Capacity calculation and coordination with its neighbors (i.e. SPP, MAPP, AECI, PJM, and MAIN). MISO also stated, "... the NERC policy of a fixed 5% threshold is inequitable and potentially results in decreased transmission grid reliability, due to the necessity of curtailing firm transactions with 5% impact while non-firm transactions with impacts below 5% go untouched." MISO indicated that it is committed to work with NERC to move the curtailment threshold issue forward.

MAIN noted<sup>11</sup> that it is continuing to make improvements to the coordination of AFC values. For instance, it indicated that MAIN and MISO are currently developing a procedure by which MAIN can reflect any changes in MISO limitations into its monthly posted ATC values once every two weeks as calculated by MISO. A similar enhancement to its hourly and daily ATC calculations was completed in August of last year.

## Formation of the Alliant West TLR Task Force

During the November 2003 standing committee meetings Doug Collins presented Alliant Energy's concerns about overselling of transmission capacity in the Alliant West region of Iowa, and the large increase in TLRs recently experienced by Alliant. Alliant maintains that the overselling of transmission service in that area unduly burdens Alliant with curtailments during the resulting TLRs, exacerbated by the practice of coordinating congestion only within immediately adjacent control areas.

Mr. Collins suggested that an equitable congestion relief policy, lower PTDF/OTDF thresholds, different curtailment thresholds for firm and non-firm transactions, greater use of proxy flowgates, and NERC oversight of transmission providers and their responsibility to coordinate sales, might help to address the problem. Alliant asked that an interim solution be proposed at the March 2004 meeting for the Summer 2004 season.

The problem was characterized by three main issues:

- Modeling and granularity
- Coordination of schedules
- Infrastructure design

---

The letters referred to below are contained in an appendix of this report.

<sup>8</sup> Alliant letter dated September 9, 2003 to NERC and Midwest ISO

<sup>9</sup> NERC response dated October 8, 2003

<sup>10</sup> Midwest ISO response dated October 9, 2003

<sup>11</sup> Main response dated October 17, 2003, and Main clarification response dated October 28, 2003

John Catlin provided an overview of the MISO perspective of this issue. He reviewed MISO's current coordination activities with MAIN, MAPP, and SPP. MISO saw several issues related to the situation:

- Coordinating Transmission Service Sales Between Regions/Transmission Providers
- ATC Calculation Differences
- NERC TLR vs. ATC Calculation
- Adequacy and Equity of NERC TLR Process

MISO indicated that it will work with neighbors to improve coordination, encourage parties to adopt consistent ATC and scheduling practices, and work within NERC to improve TLR by incorporating a variable threshold capability. It provided several proposals that would involve processes to improve ATC coordination, rationalize the methods used in the sale, scheduling, and curtailment of transmission service, and modify NERC policy to provide for variable thresholds in TLR.

Carl Monroe followed with SPP's view of the historical impacts of inadequate coordination, reviewed the status of SPP's ATC coordination efforts, and the reliability implications of inadequate ATC coordination. He provided SPP's suggestions for reliability improvements that included the development of NERC standards for consistent ATC calculation methodologies that are coordinated and flow-based, stressing true source to true sink evaluation, calculating simultaneous impacts, and adopting procedures to minimize the impacts of parking and hubbing, requiring recognition and honoring of third-party constraints, allowing reliability coordinators to utilize less than 5% cutoff during TLR, and changing the TLR methodology in a way that would assign parallel flows a lower priority than reserved flows.

The Market Committee established a task force that was charged (working with other NERC groups, RTO's<sup>12</sup>, RRC's<sup>13</sup>, and NAESB<sup>14</sup>) with developing specific recommendations for proactive market and operating practices that would address problems expected for summer 2004 associated with TLR Level 5 curtailments in the Alliant West area. Steve Dayney was appointed chair of the task force by Mike Grim, MC chairman. The AWTTTF was asked to report back to the standing committees with their recommendations during the March 2004 meetings.

Bill Lohrman, MC secretary, reviewed the formation and purpose of the task force with the other standing committees during the November 12<sup>th</sup> joint meeting and issued a request for volunteers to help develop the recommendations. Over the course of several weeks following the meetings, the task force was staffed with a group of experts from organizations with interests and transactions in the Alliant West area. The AWTTTF roster is included in the appendix.

### **Alliant West TLR Task Force Analysis**

The task force met as a group four times and several times via conference calls in the months following the November 2003 standing committee meetings. Some of the mechanisms the task force evaluated included asking whether better methodologies could be used to coordinate the calculation of available transfer capabilities used to schedule transmission sales, and whether changes should be made to the threshold limits used in the IDC. Additional consideration was given to the treatment of grandfathered transactions, rollover rights, and the impacts of parallel flows.

In order to facilitate the analysis, the AWTTTF issued a survey and follow-up data requests to determine the practices and level of ATC and AFC coordination in the Alliant West area<sup>15</sup>. Among other things, the surveys

---

<sup>12</sup> RTO – Regional Transmission Organization

<sup>13</sup> RRC – Regional Reliability Council

<sup>14</sup> NAESB – North American Electric Reliability Council

<sup>15</sup> The survey and follow-up data request are contained in an appendix to this report.

asked the respondents to describe the way their curtailment processes worked, whether and how they interchanged transaction and flowgate data with other transmission providers, how often their data was updated, how firm and non-firm transactions were treated, to what extent third party flowgates were honored, and what kind of flowgate congestion mitigation strategies were employed.

Working under a confidentiality agreement, the task force collated the information from the surveys and developed a further course of study, which was used to develop the follow-up questionnaire that was sent to transmission providers in the Alliant West area. Building on the results of the analyses of the surveys and follow-up questionnaire, the AWTTF developed its list of recommendations.

Several positive developments have occurred over the last year that has led or would lead to better coordination of the MISO flowgates in the Alliant West control area. Some of these developments can be attributed to efforts of the AWTTF and while some are a result of on-going efforts between reliability coordinators to better coordinate and manage the grid.

Several additional flowgates are now being coordinated between MISO and other transmission providers that were not being coordinated in the summer of 2003. The AWTTF was responsible, in part, for identifying these deficiencies.

In addition, the Midwest ISO has implemented a TRM<sup>16</sup> calculation methodology for flowgates in its footprint. MISO is now applying its calculated TRM values on any MISO flowgates that previously were assigned with zero TRM. The flowgates that were being investigated by the AWTTF in the Alliant West control area were in the list of flowgates that previously had been assigned a zero TRM. The application of TRM on the flowgates should result in flowgates being less oversold, and should provide somewhat greater margins before TLR is issued.

Another item investigated by the AWTTF was the step-by-step process used to coordinate AFC's between MISO and other transmission providers. It was noted that MISO was sending MAPP a value of zero for flowgates with negative AFC to indicate no more capacity was available. This unintentionally led to AFC coordination problems between MISO and MAPP. The MAPP process, although accepting and honoring the zero AFC's passed to it, would in some instances increment the flowgate to positive capacity as requests were denied or refused in its process. This could occur even though the flowgate was substantially negative. Recently, MISO has changed its software to allow the actual AFC values to be passed to MAPP instead of zero values.

MISO will also investigate the accuracy of the generator dispatch merit order and the treatment of transmission reservations having an impact on the Alliant West flowgates used in the transmission provider AFC/ATC model building processes. As necessary, MISO will obtain updated generator dispatch merit order based on these findings.

MISO has agreed to verify the accuracy of differences in the firm transmission service AFC calculation methodologies for day 1 – 31 and months 2 – 36, and, in the interim for summer 2004, MISO will consider adjustments to TRM for those Alliant West flowgates showing positive AFC in days 1 – 31 while showing negative AFC in months 2 – 36.

---

<sup>16</sup> Transmission Reliability Margin, defined as:

*The amount of transmission transfer capability necessary to provide a reasonable level of assurance that the interconnected transmission network will be secure. TRM accounts for the inherent uncertainty in system conditions and its associated effects on ATC calculations, and the need for operating flexibility to ensure reliable system operation as system conditions change. All transmission system users benefit from the preservation of TRM by transmission providers. NERC Available Transfer Capability Working Group, June 1999*

MISO is/will provide SPP a list of control areas in the MAPP region where transactions impact on the identified Alliant West flowgates exceed a 3% threshold. SPP will make an attempt to get their model expanded to calculate AFCs to and from those control areas. AECI has indicated that it will consider using the same information.

Over the last year, Midwest ISO has actively been pursuing Joint Operating Agreements with surrounding reliability coordinators which, in part, define procedures between the entities to share and honor available flowgate capacity. The AWTTTF believes that these agreements will have positive effects managing grid flows and providing grid security. These efforts are on-going and the AWTTTF encourages MISO to continue to secure these agreements in a timely fashion.

## Minority Opinions

Throughout the meetings and conference calls of the AWTTTF, the participants exhibited high levels of communication and professionalism in a cooperative attempt to resolve the issues assigned to the task force. The complexity of the problems and the challenges in projecting the scope, level, and duration of transmission congestion expected in the Alliant West area during the summer of 2004 inevitably led to some differing opinions regarding the short-term recommendations. In the interest of presenting a broad perspective, those minority opinions that were articulated during the work efforts leading up to the preparation of this report have been included for consideration below:

### I. Emergency Redispatch

Minority Opinion: Generation owners in the area are fearful that they will be operating several hours out of merit order due to transmission providers significantly overselling the flowgate capability. The Transmission Providers should bear the costs and find an equitable means to pass on such costs.

### II. Planning

Minority Opinion: Some members of the task force are concerned that some of these flowgates are chronic transmission constraints that should have been addressed already in the Alliant/MISO planning process, but that Alliant has not been willing to invest money to maintain their transmission system.

### III. Source and Sink Points

(No concerns at this time)

### IV. AFC Coordination

Minority Opinion: MAPP currently does not have the capability in their software to incorporate the flowgates without putting their customers at a disadvantage. The MAPP customers may be evaluated twice on the same flowgate if MISO is on the contract path. When this software is corrected, some members also are concerned about the accuracy of the MISO AFC calculations and are not very thrilled about the fact the MISO AFC values are already decremented for all of the MISO STUDY requests. Some members would rather that MISO share AFC values that only include confirmed requests. (This would also be under the Monitoring section)

### V. Monitoring

Minority Opinion: MAPP currently does not have the capability in their software to incorporate the flowgates without putting their customers at a disadvantage. The MAPP customers may be evaluated twice on the same flowgate if MISO is on the contract path. When this software is corrected, some members also are concerned about the accuracy of the MISO AFC calculations and are not very thrilled about the fact the MISO AFC values are already decremented for all of the MISO STUDY requests. Some members would rather that MISO share AFC values that only include confirmed requests. (This would also be under the AFC Coordination section)

**VI. NERC IDC Tool and Policy (for a test period of June 1, 2004 to September 30, 2004)**

Minority Opinion: The recommendation to use a 3% threshold for interruption of non-firm transmission service should not be accepted by the Standing Committees.

The AWTTTF was established to deal with a potential reliability issue in the Alliant West region. Much of the work done by the TF has identified problems in the sale of transmission service in the region including the manner in which information on the capability of the system to support the sale of additional transmission service is exchanged amongst the transmission providers in the region. While improvements in this area could well result in reduced commercial transactions, the implications are largely confined to this region and those regional improvements could be supported.

However, the task force is not in a position to draw the same conclusion with respect to the 3% threshold recommendation. With this recommendation, the potential exists to affect a large number of transactions geographically remote from Alliant, which might impose significant constraints on commercial transactions taking place quite distant from the initiating problem and might even have reliability implications in those areas.

In addition the contribution of any one of these transactions to the solution will be small. AWTTTF has also not reviewed the operational feasibility of cutting a sufficient number of transactions at a 3% threshold such that the required relief can be achieved, and some participants do not believe this particular aspect has been studied in sufficient detail. To answer such questions, the task force would also need to have had a more diverse membership. When the AWTTTF was established a conscious decision was made to restrict its membership to participants in the immediate vicinity of the problem.

While this recommendation has been limited to non-firm transactions, some task force members did not believe that in itself is sufficient to mitigate the potential commercial implications. Many reasons could cause a transaction to be scheduled across non-firm transmission, including the possibility that firm transmission might not be available or that it is being arranged intra-day when firm service cannot be sold. The impact of this recommendation is therefore that interfaces that have not previously been subject to cuts as a result of problems in the Alliant West region might now be. In some participants' opinion, the AWTTTF does not have sufficient information to assess these impacts.

Another issue with this recommendation is that some members of the task force question the accuracy of the IDC and don't believe that it would be accurate down to 3%.

A suggestion was made that this recommendation might lead to some IDC complications and that the AWTTTF first consult with the IDCWG to verify the feasibility of the test procedure for manually implementing low-TDF curtailments for Summer 2004.

**ALLIANT WEST TLR TASK FORCE (AWTTF)**

Appendix A

**ROSTER**  
**MARCH, 2004**

Chairman	Steve Dayney Market Committee	Xcel Energy Corporation 1225 17 <sup>th</sup> Street, Suite 1065 Denver, Colorado 80207	Phone: 303-294-2727 Fax: 303-294-2194 Email: <a href="mailto:steven.dayney@xcelenergy.com">steven.dayney@xcelenergy.com</a>
	Steve Beuning Xcel Energy	Xcel Energy Marketing 512 Nicollet Mall RS-5 Minneapolis, Minnesota 55401	Phone: 612-330-7987 Email: <a href="mailto:Stephen.j.beuning@xcelenergy.com">Stephen.j.beuning@xcelenergy.com</a>
	Chris Bolick AEC Inc.	Associated Electric Cooperative, Inc. P.O. Box 754 Springfield, Missouri 65801-0754	Phone: 417-885-9340 Fax: 417-885-9229 Email: <a href="mailto:cbolick@aeci.org">cbolick@aeci.org</a>
	Dan Burns CIPCO	CIPCO Box 2517 Cedar Rapids, IA 52406	Phone: 319-366-4512 Email: <a href="mailto:dan.burns@cipco.net">dan.burns@cipco.net</a>
	Doug Collins Alliant	Alliant Energy P.O. Box 769 1000 Main Street Dubuque, Iowa 52004-0769	Phone: 563-557-2217 Fax: 563-557-2202 Email: <a href="mailto:dougcollins@alliantenergy.com">dougcollins@alliantenergy.com</a>
	Jeff Eddy Alliant	Alliant Energy P.O. Box 769 Dubuque, IA 52004-0769	Phone: 563-582-5600 Email: <a href="mailto:jeffeddy@alliantenergy.com">jeffeddy@alliantenergy.com</a>
	Francis Esselman ATC	American Transmission Company 2489 Rinden Road Cottage Grove, WI 53527-9598	Phone: 608-877-8172 Email: <a href="mailto:fesselman@atcllc.com">fesselman@atcllc.com</a>

**ALLIANT WEST TLR TASK FORCE (AWTTF)**  
**ROSTER**  
**MARCH, 2004**

	Barry Green NAESB	Ontario Power Generation, Inc. 700 University Ave, H18 G3 Toronto, ON M5G 1X6	Phone: 416-592-7883 Fax: 416-592-8519 Email: <a href="mailto:barry.green@opg.com">barry.green@opg.com</a>
	Bill Harm Senior Consultant	PJM Interconnection LLC 955 Jefferson Avenue Valley Forge Corporate Center Norristown, PA 19403	Phone: 610-666-8868 Fax: 610-666-4282 Email: <a href="mailto:harm@pjm.com">harm@pjm.com</a>
	Dennis Kimm MidAmerican Energy	MidAmerican Energy 4299 NW Urbandale Drive Urbandale, IA 50322	Phone: 515-252-6737 Fax: 515-281-2355 Email: <a href="mailto:ddkimm@midamerican.com">ddkimm@midamerican.com</a>
	Drew Kovalak MAPP	MAPPCOR 1125 Energy Park Drive St. Paul, MN 55108	Phone: 651-632-8412 Fax: 651-632-8572 Email: <a href="mailto:dj.kovalak@mapp.org">dj.kovalak@mapp.org</a>
	Tom Mallinger MISO	Midwest ISO 701 City Center Drive Carmel, IN 46032	Phone: 317-249-5421 Fax: 317-249-5910 Email: <a href="mailto:Tmallinger@midwestiso.org">Tmallinger@midwestiso.org</a>
	Lanny Nickell SPP	Southwest Power Pool 415 North McKinley Suite 800 Little Rock, Arkansas 722205-3020	Phone: 501-664-0146 Fax: 504-664-9553 Email: <a href="mailto:lnickell@spp.org">lnickell@spp.org</a>
	Julie Novacek Chair – IDCW Group	Midwest ISO, Inc. 1125 Energy Park Drive St. Paul, Minnesota 55108	Phone: 651-632-8445 Fax: 651-413-5761 Email: <a href="mailto:jnovacek@midwestiso.org">jnovacek@midwestiso.org</a>

**ALLIANT WEST TLR TASK FORCE (AWTTF)**  
**ROSTER**  
**MARCH, 2004**

	Brian Pedersen MISO	Midwest ISO 1125 Energy Park Drive St. Paul, MN 55108	Phone: 651-632-8541 Email: <a href="mailto:bpedersen@midwestiso.org">bpedersen@midwestiso.org</a>
	John Seidel Split Rock Energy	Split Rock Energy 301 4 <sup>th</sup> Avenue S. 860 N. Minneapolis, MN 55415	Phone: 612-851-1310 Email: <a href="mailto:jseidel@splitrockenergy.com">jseidel@splitrockenergy.com</a>
	Patrick J. Shanahan Chair – DFW Group	American Transmission Company L.L.C. 2489 Rinden Road Cottage Grove, Wisconsin 53527-9598	Phone: 608-877-7677 Fax: 608-877-7641 Email: <a href="mailto:pshanahan@atcllc.com">pshanahan@atcllc.com</a>
	Ron Szymczak MAIN	Commonwealth Edison Company Transmission PLNG Two Lincoln Centre, Ninth Floor Oak Brook Terrace, IL 60181-4260	Phone: 630-437-2795 Fax: 630-437-2354 Email: <a href="mailto:Ronald.szymczak@exeloncorp.com">Ronald.szymczak@exeloncorp.com</a>
	Wayne Van Osdol MISO	Mid-Continent Area Power Pool 1125 Energy Park Drive St. Paul, Minnesota 55108-5001	Phone: 651-632-8413 Fax: 651-632-8494 Email: <a href="mailto:WvanOsdol@midwestiso.org">WvanOsdol@midwestiso.org</a>
	Larry Kezele NERC Staff	North American Electric Reliability Council 116-390 Village Boulevard Princeton, New Jersey 08540	Phone: 609-452-8060 Fax: 609-452-9550 Email: <a href="mailto:larry.kezele@nerc.net">larry.kezele@nerc.net</a>
	William W. Lohrman NERC Facilitator	North American Electric Reliability Council 116-390 Village Boulevard Princeton, New Jersey 08540	Phone: 609-452-8060 Fax: 609-452-9550 Email: <a href="mailto:bill.lohrman@nerc.com">bill.lohrman@nerc.com</a>

NERC AWTTF Questionnaire for Transmission Providers

Please put an 'X' next to the correct response and answer all questions as complete as possible.

If questions arise when filling out the survey please contact Bill Lohrman ([Bill.Lohrman@nerc.net](mailto:Bill.Lohrman@nerc.net), 609-452-8060)

Please submit the completed surveys via email to Bill Lohrman.

Transmission Provider (TP) Name: \_\_\_\_\_

TP Contact for questions regarding responses: \_\_\_\_\_

TP Contact Phone Number: \_\_\_\_\_

Date of Response: \_\_\_\_\_

- Regarding the flowgates listed below, does your current ATC Calculation Process and Transmission Service Request (TSR) evaluation process:

For Flowgate	Monitor?	Service Type Monitored?	Monitor Using MISO Distribution Factor cut-off?	Use AFC Value from MISO?
Arnold – Vinton 161 kV for loss of Arnold – Hazelton 345 kV	__Yes __ No	__Firm __Nonfirm __Both	__Yes __ No (3% OTDF)	__Yes __ No
Poweshiek - Reasnor 161 kV for loss of Montezuma - Bondurant 345 kV	__Yes __ No	__Firm __Nonfirm __Both	__Yes __ No (3% OTDF)	__Yes __ No
Salem 345/161 kV Transformer for loss of Wempletown-Paddock 345 kV	__Yes __ No	__Firm __Nonfirm __Both	__Yes __ No (3% OTDF)	__Yes __ No
Wisdom-Triboji 161 kV for loss of Raun-Lakefield 345 kV	__Yes __ No	__Firm __Nonfirm __Both	__Yes __ No (3% OTDF)	__Yes __ No
Lakefield-Fox Lake 161 kV for loss of Lakefield – LGS 345 kV	__Yes __ No	__Firm __Nonfirm __Both	__Yes __ No (3% OTDF)	__Yes __ No

- For those flowgates monitored above please specify the times in which you monitor the service. (Example: Yearly, monthly, weekly, daily, hourly, all time.) If firm and nonfirm are different please indicate.  
<Write explanation here>

3. For all the above flowgates monitored in #1: **(If all in #1 are not monitored then go on to #8)**

a. You will **refuse** transmission service for:

Service Type:	Using MISO Distribution Factor cut-off? (3% OTDF)	Using AFC Value from MISO?
<input type="checkbox"/> Firm <input type="checkbox"/> Nonfirm <input type="checkbox"/> Both <input type="checkbox"/> Neither	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

b. Please specify time frame in which service is refused. (Example: Yearly, monthly, weekly, daily, hourly, all time.) If firm and nonfirm are different please indicate. Also indicate if network analysis overrides the MISO AFC values in any time frame.

<Write explanation here>

c. Do you refuse service for any ALTW flowgates that has AFC that is insufficient for the service being requested if MISO is “on-the-path”? “On-the-path” means that MISO is the source, and/or the sink, the point-of-receipt (POR) and/or the point-of-delivery (POD).

<input type="checkbox"/> Yes <input type="checkbox"/> No
--

d. Do you ignore or not refuse service for any of the flowgates in #1 for grandfathered service? Grandfathered service may include a contract that allows joint usage or a contract that allows a customer to specify source, sink and MW values and the contract was pre-OATT.

<input type="checkbox"/> Yes <input type="checkbox"/> No
--

If yes, please explain:

- e. Have you accepted service that requires mitigation schemes or generation redispatch requirements on any of the flowgates in #1 for service?

<input type="checkbox"/> Yes <input type="checkbox"/> No
--

If yes, please indicate which flowgates, how many MWs were mitigated, the time frame of the service, and your mitigation methodology:

- f. If you ignore a flowgate because it is “on-the-path” or part of a grandfathered transaction, do you honor the flowgate if the request is redirected and is not “on-the-path” and not a grandfathered transaction?

<input type="checkbox"/> Yes <input type="checkbox"/> No
--

If no, please explain:

- g. Have you been monitoring all of these flowgates that you answered “Yes” in #1 for the past 12 months?

<input type="checkbox"/> Yes <input type="checkbox"/> No
--

- i. If no, explain which flowgate(s) is “No” and when you began monitoring.  
<Write explanation here>

4. For the flowgates listed in #1 that are monitored, briefly explain the methodology by which you determine the impact on the flowgate and periodicity of updates. (Explain methodology to determine distribution factor on the flowgate. Provide a brief explanation of the source and sink points (i.e. scale generation, scale load) used to determine the distribution factor. Specify if source and sink points are done on a control area basis or individual plant/unit basis, and how you deal with sources and sinks that are outside of your model area.)

<Write explanation here>

5. For flowgates listed in #1 that are monitored, briefly explain how counterflow is used for firm and non-firm calculations, both inter-control area and intra-control area and if and how that may change depending on time frame of service.

<Write explanation here>

6. For flowgates listed in #1 that are monitored, identify how much TRM was being held back on each flowgate in MW in the operating horizon and planning horizon during the summer of 2003. Also define your operating horizon and planning horizon.

<Write explanation here>

7. For flowgates listed in #1 that are monitored, identify how much TRM is currently being held back on each flowgate in MW in the operating horizon and planning horizon. Also define operating horizon and planning horizon and if you expect these TRM values to change prior to summer 2004.

<Write explanation here>

8. Do you halt the sale of any transmission service when any of these flowgates are in TLR?

__Yes __No
------------

(If answer is "No", go on to #9)

a. Please explain at which level of TLR you deny transmission service, what level of firmness is halted, and for how long.

<Write explanation here>

b. Please explain how you determine which transmission service is halted. (Example: NERC TDF Viewer using a 5% factor, etc.)

<Write explanation here>

9. When the flowgates listed in #1 are in NERC TLR - How do you determine the impact of non-firm network service that does not cross the control area boundary? (E.g. Ignore, don't have any, calculate unit(s) to load....)

<Write explanation here>

10. Do you receive AFC values from MISO for the flowgates in #1?

<input type="checkbox"/> Yes <input type="checkbox"/> No
--

If yes, indicate:

- a.  Firm  Nonfirm  Both
- b. For what time frames do you receive the values? (E.g. Monthly and Weekly) If firm and nonfirm are different, please indicate.
- c. How often do you receive the AFC values? If different service types are different, please indicate.

**Survey members included are: MISO, MAPP, all MAPP members, all MAIN members, SPP and AECI.**

11. Please indicate from which survey members you receive the following data, for which time frames and how often:

- a. Reservation Data:
- b. Load Data:
- c. Generation Dispatch Data:
- d. Any other data:







## NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

Princeton Forrestal Village, 116-390 Village Boulevard, Princeton, New Jersey 08540-5731

February 5, 2004  
(revised request)

Dear Midwestern Transmission Providers:

Members of the Alliant West TLR Task Force (AWTTF) were very appreciative of your replies to the survey sent to you on December 19, 2003. The information contained in those replies has been helpful in the task force's analysis.

As you might expect, some of that information has generated follow-on questions, and the task force requests that you provide data pertaining to the following:

- Posted firm AFCs:
  - for 7-01-03 and seven days prior, and
  - for 8-18-03 and seven days prior.
    - For the following flowgates:
      - Arnold – Vinton 161 kV for loss of Arnold – Hazelton 345 kV
      - Poweshiek - Reasnor 161 kV for loss of Montezuma - Bondurant 345 kV
      - Salem 345/161 kV Transformer for loss of Wempletown-Paddock 345 kV
      - Wisdom-Triboji 161 kV for loss of Raun-Lakefield 345 kV
      - Lakefield-Fox Lake 161 kV for loss of Lakefield – LGS 345 kV

If you use the AFCs calculated by the MISO in your transmission service request evaluation process there is no need to provide these values because they will be supplied by the MISO.

- Daily firm confirmed reservations for both days above and the date those requests were accepted.
- Whether Reserve Sharing or a MAPP EM was called on either day, and if so, a brief description thereof.
- Whether there were any significant generators or transmission elements Out of Service, either planned or unplanned, and if so, a brief description thereof.
- The mid-day flows on MHEX-N during those same two days and seven days prior for each day.

The task force is asking that the responses be returned to Bill Lohrman ([Bill.Lohrman@nerc.net](mailto:Bill.Lohrman@nerc.net)) via email at NERC by 2:00 pm Eastern time, Tuesday February 17, 2004. Inquiries regarding the follow-on questions may be directed to Bill Lohrman by email or by telephone at (609) 452-8060. Thank you for your prompt consideration of this important matter.

Alliant West TLR Task Force  
Steve Dayney  
Chairman

**Appendix C****Long-Term Recommendations for Further Consideration by the Standing Committees**

As might be expected, the AWTTTF evaluated numerous recommendations before settling on the six short-term recommendations at the front of the report that are being presented for approval. This appendix contains a more extensive list of *preliminary* recommendations that could be further reviewed and considered by other subcommittees, working groups, task forces, etc. Their inclusion in this appendix should not be taken as an endorsement of the recommendations by the AWTTTF. The AWTTTF did not have sufficient time to fully analyze these preliminary recommendations and did not determine a majority / minority opinion for any of the long-term recommendations.

Descriptive categories have been assigned to these long-term recommendations to aid in their review, as was done with the short-term recommendations.

**Load and Demand**

MISO should investigate the accuracy of load forecasts that have an impact on the Alliant West flowgates used in the transmission provider AFC/ATC model building processes. MISO will obtain updated load forecasts as necessary based on the findings.

**Data Input and Utilization**

The specified transmission providers providing ATC / AFC calculations must utilize transmission and generation outage information from the NERC SDX at the frequency recommended above, along with other transmission provider information contained in the SDX.

For those transmission providers that cannot meet the recommended frequency, provide an indication of what is possible by June 1, 2004, and when they would anticipate being able to fully meet the recommended frequency.

NERC should establish minimum data entry requirements (i.e. load values for what time frames, generation and transmission outages, etc.) and the frequency for entering the data into SDX. Forced outages are to be entered within thirty minutes of the outage. Other data shall be entered at a minimum of once per day.

**Tagging**

MISO should consider releasing less AFC on the ALTW flowgates on a non-firm hourly basis when using firm schedules instead of firm reservations while calculating non-firm AFCs

**NERC SDX Outage Data**

Transmission providers shall ensure that all planned maintenance outages be taken into account in the calculation of ATC.

**TRM**

ECAR, MAIN, MAPP and SPP will review MISO TRM Methodology to determine if it meets the intent of the Regional methodologies.

Establish NERC standards on determination and implementation of TRM

**Monitoring**

Establish NERC standards on monitoring for ATC calculations

**Generation**

MISO should investigate the amount of counter flow (NNL and point to point) being used for wind farms in models for AFC/ATC calculations and report back to the Market Committee.

MISO should provide a recommendation as to how wind farm generation will be modeled for long term and short term AFC /ATC calculations.

Drought impacts – MISO should determine what assumptions for hydro are being used in the planning models in respect to recent low water level conditions.

**Frequency of Calculations**

Establish enhanced NERC standards on frequency of AFC/ATC calculations

**AFC Coordination**

Establish NERC standards on AFC/ATC coordination

**Tariffs**

Suggest changes to the FERC pro-forma tariff that both Source and Sink be specified in addition to POR and POD currently required for non-firm service

**Source and Sink Points**

Individual base load units shall not be used for calculating AFC distribution factors.

Redispatch of network resources shall be taken into account when calculating AFC

If individual network resources are being used for AFC calculations, then such network resources shall be undesignated if used for off system sales, within the IDC.

Transmission providers should verify that source and sink on the tag matches the source and sink on the reservation, for both firm and non-firm.

Only available generation capacity can be utilized as a source point (name plate vs. remainder values). The following examples are provided for clarification:

Unit P <sub>max</sub>	MW Dispatched in Model	MWs available for use as source points
500 MW	300 MW	200 MW
300 MW	300 MW	0 MW

Establish NERC standards on source and sink point definitions

In order to avoid TLRs, establish procedures to verify on an ongoing basis that the POR / POD units are actually running in accordance with the reservations impacting the specified flowgate(s), to the extent it is possible.

**Planning**

Transmission Owners must plan their transmission systems to account for firm transmission, TRM, CBM and counterflow utilized in firm AFC/ATC calculations.

Establish NERC standards requiring consistency between what is modeled in AFC/ATC calculations and what is modeled in planning for native load studies.

Long term - MISO, working with other transmission providers, shall lead an investigation to determine what aspects of the various transmission service request processes caused overselling of AFC for

summer 2004 for the Alliant West flowgates and make recommendation to the appropriate authorities to prevent overselling from happening in future years.

Transmission service should be scheduled under the conditions it was reserved.

For new service, reservations that specify a specific unit Service sold on a unit-specific basis should be scheduled on a unit-specific basis.



## Introduction of Alliant's Concerns

Market Committee  
Orlando, Florida  
November 11, 2003



## Summary of Alliant's Letter

- ◆ On September 9, 2003, Alliant wrote NERC and Midwest ISO to express their concerns related to:
  - ATC Calculation and Coordination
  - Coordination of sales of Transmission Service
  - Increased use of TLR to control Flowgate loadings



## The NERC Response

- ◆ NERC responded by letter dated October 8, 2003
  - Proposed "initial" discussion of Alliant's concerns at the November Standing Committee meetings
  - Reactivate the work of the Proxy Flowgate Task Force and the IDC Granularity Task Force
  - Transition to new Reliability Standards and NAESB Business Practices that should address ATC coordination concerns



## The MISO Response

- ◆ Midwest ISO responded by letter dated October 9, 2003
  - Continue to improve ATC coordination with MAPP, MAIN, PJM and SPP
  - Work with the NERC community to allow variable thresholds in the TLR procedure to promote equity and system reliability



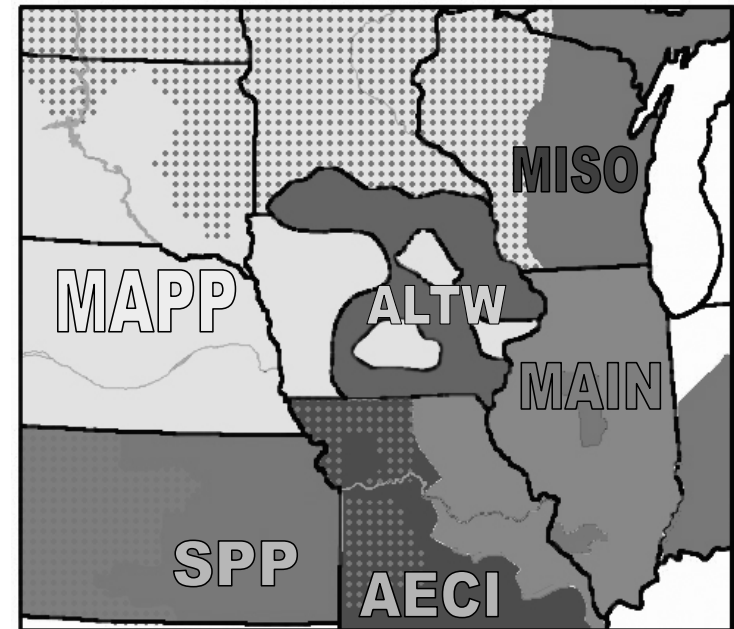
## The MAIN Response

- ◆ MAIN responded by letters dated October 17, 2003 and October 28, 2003
  - Expressed concern with effectiveness of TLR curtailments in eastern Iowa due to lack of IDC system model granularity
  - Interim alternative developed by MAIN and MISO to off load non-firm transactions from specific generation prior to curtailing firm transmission service
  - Continue to work with SPP and MISO to improve ATC process by coordinating transaction and limit information

# Presentation to NERC MC

Douglas C. Collins  
Alliant Energy  
11-11-03

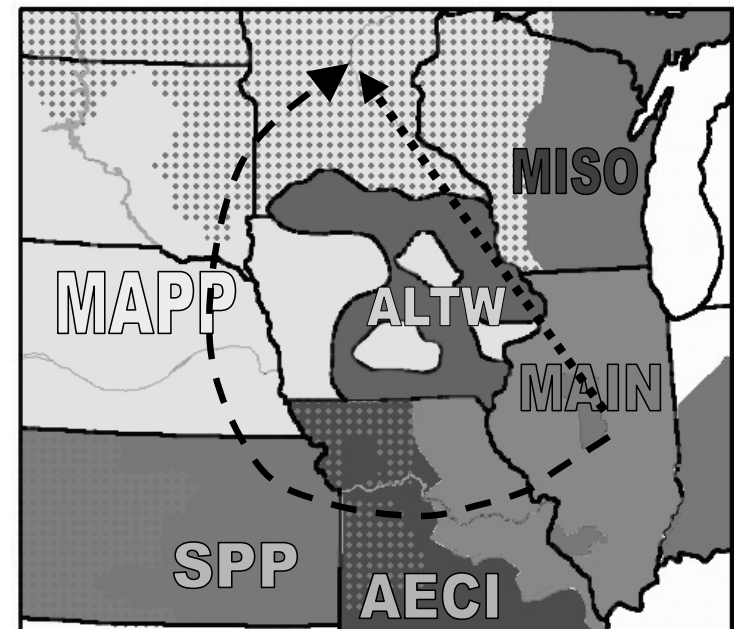
## Alliant West Control Area



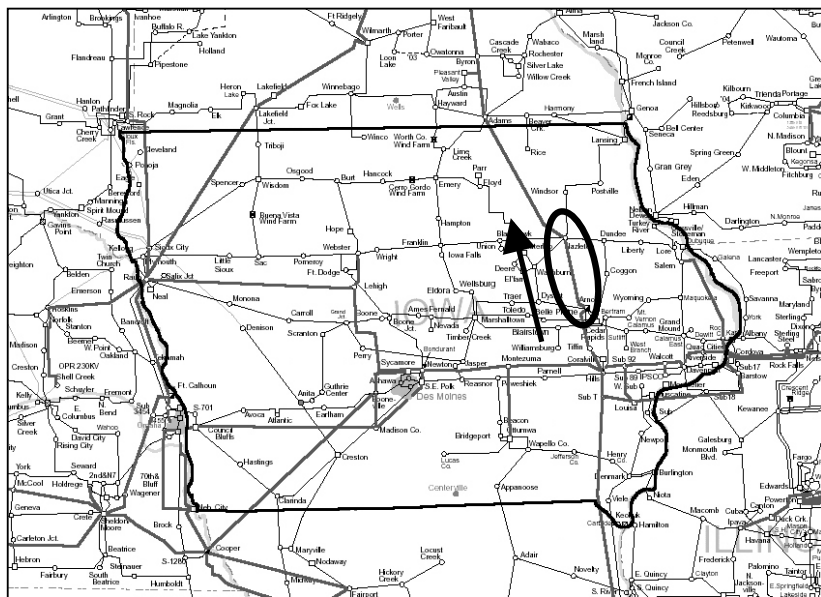
## Alliant Letter to NERC and MISO

- Seams issues lead to uncoordinated transmission sales
- Cumulatively, large power transfers (non-Alliant) through Iowa
- NERC congestion policies result in Alliant shouldering burden of congestion relief
- ALTW experiencing significant and increasing congestion costs

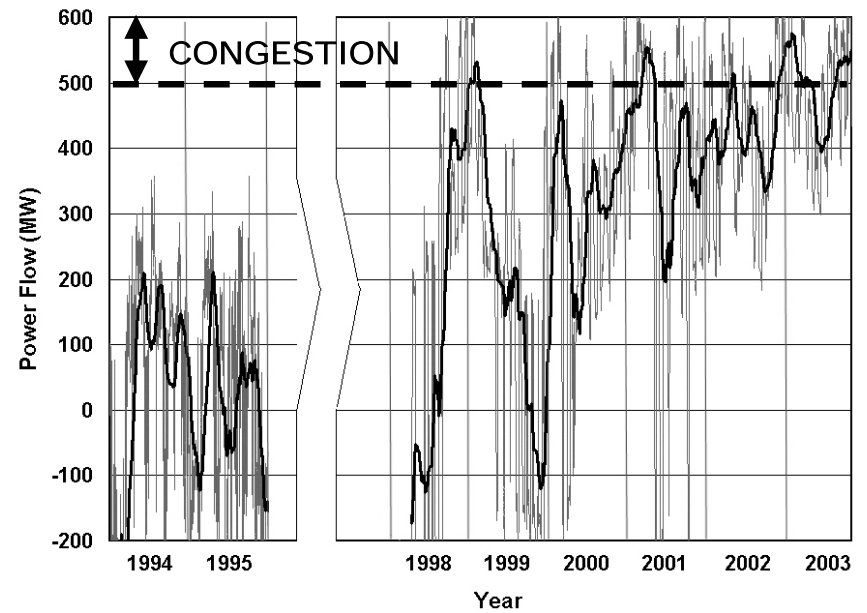
## Example of Seams Issue



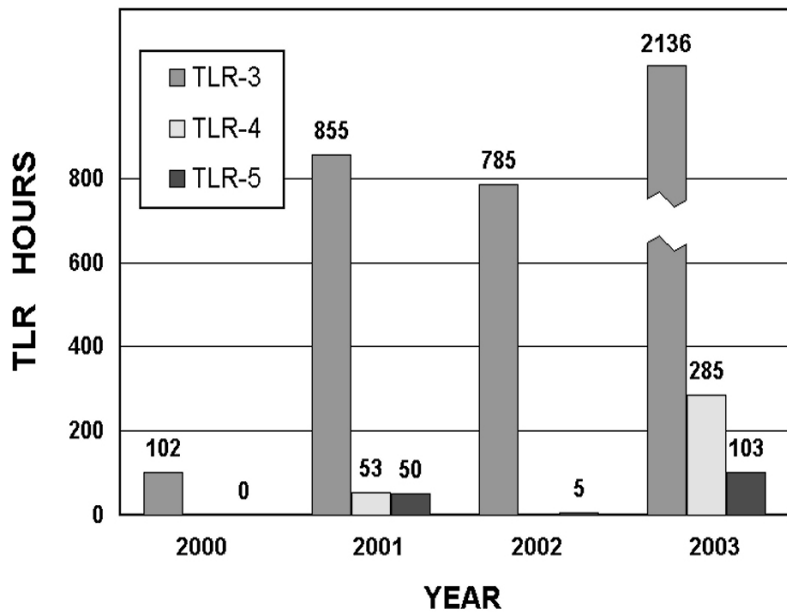
## Arnold-Hazleton 345 kV Line Flow



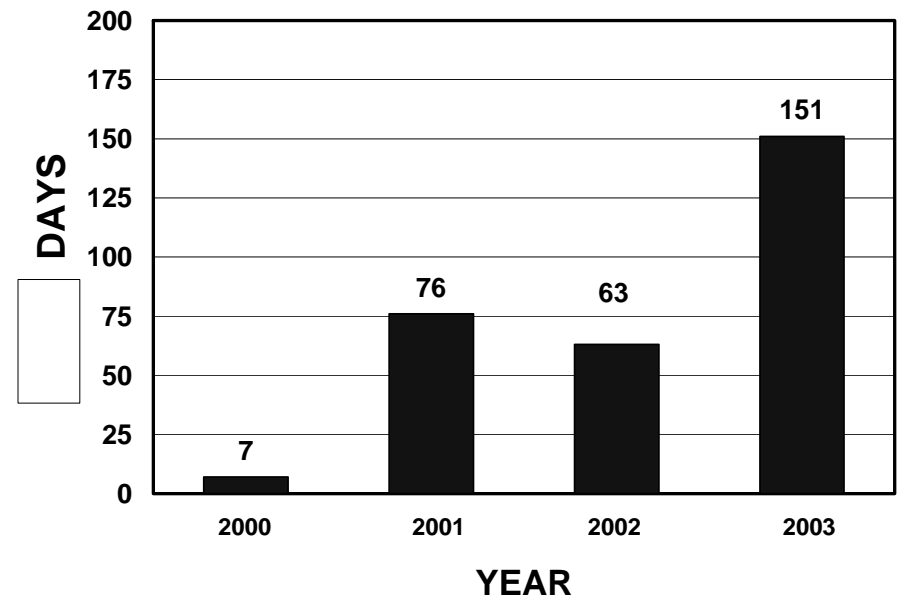
## Arnold-Hazleton 345 kV Daily Peak Line Flow



## CONTROL AREA FLOWGATE TLR HISTORY



## ALTW DAYS IN TLR 3 through 5



## Summary

---

- Several factors contribute to an oversubscribed transmission system in Iowa (seams issues)
- Due to loss of source/sink visibility and NERC policies, congestion relief responsibility is not equitable
  - Shouldered onto the control area where the constraint appears
- Market issue turning into reliability issue

## Potential Causes

---

- Would this amount of congestion occur if the Midwest was a single market? (seams issues)
- Is there a potential financial incentive for Transmission Providers to NOT coordinate?
- Would equitable congestion relief policy lead to greater cooperation and coordination of transmission sales = reliability?

## Potential Solutions

---

- Equitable congestion relief policy
- Lower PTDF/OTDF thresholds
  - Different thresholds for firm and non-firm
- Greater use of proxy flowgates
- NERC oversight of transmission providers and their responsibility to coordinate sales

## *Reliability and Equity Issues in Transmission Sales and Congestion Management*

Presented to NERC  
November, 2003

**MISO**

## *Issues*

- **Coordinating Transmission Service Sales Between Regions/Transmission Providers**
- **ATC Calculation Differences**
- **NERC TLR vs. ATC Calculation**
- **Adequacy and Equity of NERC TLR Process**

**MISO**

2

## *Remedies Proposed*

- **Improve ATC coordination.**
- **Rationalize the methods used in the sale, scheduling, and curtailment of transmission service.**
- **Modify NERC policy to provide for variable thresholds in TLR.**

**MISO**

3

## *ATC Coordination*

- **Currently:**
  - MAIN, MAPP, MISO and SPP currently exchange reservation and ATC information.
  - Parallel-path limitations are respected in MISO's TSR evaluation.
- **Proposals**
  - Increase the number of flowgates under coordination by neighboring systems.
  - Address Modeling Differences
    - True Source/Sink
    - Contract-Path vs. Flow-based

**MISO**

4

## *Evaluation/Scheduling/Curtailment*

- Transmission service evaluated on a generator-specific basis should be scheduled on that same basis.
  - Transmission service is being sold based on generator-specific analysis when in fact the specified generators are not used to support the subsequent schedule.
  - This leads to over-selling transmission service and reduces the effectiveness of congestion management measures.
- Entities selling service on a generator-specific basis should require schedules to match the reservation.
- Entities such as MAPP should consider adopting a control area analysis for short-term transmission sales.

**MISO**

5

## *Provide for Variable Thresholds in NERC TLR*

- **Fixed 5% threshold prevents Reliability Coordinators from reliably managing congestion.**
- **Circuitous reservation paths, buy-sell deals, and schedules not matching transactions not showing up on the greater-than-five percent schedule curtailment list.**

**MISO**

6

## *MISO's Commitments*

- **Work with neighbors to improve coordination.**
- **Encourage parties to adopt consistent ATC and scheduling practices.**
- **Work within NERC to improve TLR by incorporating a variable threshold capability.**

**MISO**

7



## ATC Coordination Issues

Presented to  
NERC Standing  
Committees  
November 11-12, 2003

2

## Historical Impacts of Inadequate Coordination

- SPP has been significantly impacted by TLR activity initiated or aggravated by parallel flows
  - 51 TLR Level 5 events since 2000
  - Estimated that parallel flows induced 307,000 MWH of curtailments during 2002 and 2003
- SPP primarily impacted by transmission sales of AECI, Ameren, Entergy, MAPP, MISO

3

## ATC Coordination Agreements

- Absent NERC Standards or Policies addressing ATC coordination requirements:
  - parties desiring to coordinate must agree upon ATC coordination principles
  - principles should be formalized in coordination agreements

4

## ATC Coordination Agreements

- At a minimum, an effective coordination agreement should contain:
  - 1) Data exchange (e.g., constraint definitions, ATC/AFC values, reservations, schedules, load forecasts, outages, models, etc.)
  - 2) Inclusion of critical third-party constraints and data in ATC calculations
  - 3) Commitment to refuse service if inadequate ATC exists due to other party's constraint

5

## Status of SPP ATC Coordination Efforts

- Data Exchange
  - AECI (limited, one-way)
  - Ameren (via MAIN)
  - MAPP (limited, one-way)
  - MISO
- Include Other's Constraints in ATC Calculations
  - AECI (limited)
  - Ameren (via MAIN)
  - MISO
  - MAPP (limited)
  - Entergy
- Formal Agreement to Refuse Service
  - NONE

6

## Reliability Implications of Inadequate Coordination

- Results in the continued reliance on TLR procedures to maintain flows within limits
- TLR may not be as effective or timely as needed to prevent a catastrophic event
- Ignoring the continued overselling of transmission service and relying on TLR procedures as the resolution is not in the best interest of reliability

7

## Reliability Implications of Inadequate Coordination

- May create incentives to develop operating guides to avoid TLR
- Operating guides that allow anticipated post-contingency flows to exceed IRLs based upon an expectation of effective post-contingent action are risky
- Increased number of operating guides will increase risk of interaction or operator error.

8

## Other Issues

- Variation of ATC calculation methodologies
- Non-simultaneous ATC values
- Lack of true source to sink calculations
- Parking and hubbing

9

## Suggested Reliability Improvements

- Allow RCs to utilize less than 5% cutoff during TLR
- Consider TLR methodology that treats parallel flows at a lower priority than reserved flows

10

## Suggested Reliability Improvements

- Develop NERC standards for consistent ATC calculation methodologies that are flow-based, stress true source to true sink evaluation, calculate simultaneous impacts, and minimize the impacts of parking and hubbing
- Develop NERC standards for ATC coordination requirements
- Require recognition and honoring of third-party constraints

11

[cmonroe@spp.org](mailto:cmonroe@spp.org)



*Lighting the past...powering the future!*

[www.spp.org](http://www.spp.org)





Eliot G. Protsch  
President  
Interstate Power and Light Co.

Alliant Energy Corporation  
200 First Street SE  
P.O. Box 351  
Cedar Rapids, IA 52406-0351

Office: 319.786.4136  
Fax: 319.786.4483  
eliotprotsch@alliantenergy.com

September 9, 2003

Mr. Bill Phillips  
Vice President, Operations  
Midwest ISO  
701 City Center Drive  
Carmel, IN 46032

Mr. Lou Leffler  
Manager Critical Infrastructure  
NERC  
116-390 Village Boulevard  
Princeton, New Jersey 08540-5731

Gentlemen:

Alliant Energy is requesting that the MISO and NERC take necessary actions to promote the coordinated selling of transmission service and equitable curtailments of such service due to congestion. A significant portion of Alliant Energy's control area is situated in eastern Iowa, which has seen congestion increase steadily over the last several years. Eastern Iowa is directly connected and impacted by transmission sales from multiple parties relying on ATC calculations and coordination amongst five entities (MAIN to the east, SPP and Associated electric to the south, MAPP to the north and west, and MISO from south, north, and east). To date Alliant Energy has borne the operational consequences and the significant costs of TLR's with the misconception that incremental improvements in the coordination of transmission sales, the IDC model and calculation methodology, and the transmission system itself would eventually dampen the detrimental effects to Alliant Energy's financial and operational well being.

Clearly we have not seen an improvement. To the contrary we are now experiencing continued TLR's to our non-firm and firm purchases and a significant increase in frequency and magnitude of generation re-dispatch and Network Native Load (NNL) reductions. Alliant Energy believes it is being financially and operationally burdened while other transmission customer's benefit at our expense. A case can be made that greater coordination must be exercised between entities selling transmission service and in fact, Alliant has in the past worked to promote greater cooperation between entities where seams issues were noted. But because of the number of entities involved, plugging up seams holes in one location only reveals weaknesses in other locations. Physical limitations of the system are ignored as power is 'contractually' rerouted around constraints although in the end, impacts of transactions to the eastern Iowa grid remain unchanged.

To add to Alliant's frustrations with the over subscription of transmission service, the NERC IDC does not adequately curtail transactions that are significantly and negatively affecting Iowa. Alliant, through its participation in transfer studies performed for TRANSlink, have seen generally that 115 and 161 kV facilities limit transfers in and through Iowa, as well as several other Midwest states. But in these same studies, it was also seen that very few 115 and 161 kV facilities respond by over 5 percent on an OTDF basis to regional transfers. Alliant Energy sees these realities played out on a daily basis. Cumulatively, large transfers occur through Iowa from the south and east to the north causing congestion in Iowa that Alliant is forced to relieve. NNL reductions in Alliant's control area are occurring while significant amounts of non-firm business, as well as short-term firm service, continues to flow without restriction. The situation in eastern Iowa is such that there are entities directly benefiting from seams issues. These entities have little incentive to correct the problem and instead have every reason to perpetuate the status quo. This is why NERC and MISO must step up to the plate and set policy that is equitable to market participants. On first appearance, this might be considered a market issue, but the frequency of TLR-5 in eastern Iowa has highlighted this to be a reliability issue that NERC must address. The burden of congestion costs needs to be reflected in a more just and reasonable way to those responsible for the congestion. This is essential to solve the problems of coordination. If entities are allowed to be responsible for the congestion they contribute to, then incentives will be in-place to promote coordination of transmission sales.

Although the MISO has been working to close up certain seams issues between itself and SPP, Alliant believes that the MISO needs to identify other issues that can lead to a more coordinated approach to selling of transmission service. Alliant suggests the following issues be considered:

- o More coordination of ATC calculations with MAPP. Inclusion of MISO-Wisconsin flowgates in the MAPP approval process.
- o More coordination of ATC calculations with Associated Electric.
- o Review of source/sink combinations on MAPP, MAIN, SPP, and Associated Electric's OATT node. Are the limited numbers of source/sink combinations on individual OATT nodes resulting in a loss of ultimate source/sink information needed for ATC evaluation?
- o Submission of MISO Attachment K

Alliant Energy suggests that the NERC abandon its "one size fits all" OTDF cutoff threshold used for relieving congestion. This is necessary step for promoting coordination. The Eastern states transmission system is a much heavier and robust system than that of the upper mid-West. A five percent OTDF in the East has proven reasonable, however it has proven less than effective in the Midwest. There have been several attempts in the past by midwestern entities, including the MISO, to lower the OTDF threshold used in the NERC TLR procedures. These efforts have failed to gain NERC approval. In light of the proven ineffectiveness of the current methodology and the increased attention to maintaining grid security, it is asked the threshold again be reviewed and that the MISO work with NERC to forge a new policy.

Mr. Bill Phillips  
Mr. Lou Leffler  
September 9, 2003  
Page 3

Although a 5 percent threshold may be reasonable for the east coast and other locations, there must be avenues in which an RTO can assess the appropriate cutoff level for the transmission system under its control and authority. If an independent RTO cannot be granted this discretion and latitude, then it can only be assumed that the market takes precedence over grid security.

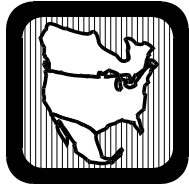
Alliant Energy offers its support and assistance to efforts that promote the coordinated selling of transmission service and the equitable curtailments of such service due to congestion. Alliant Energy requests that both NERC and MISO respond to this letter in the following ways. First, Alliant Energy requests that each entity respond within 30 days that they have received the letter and what forum(s) the letter will be addressed. Second, a written response from NERC and MISO outlining efforts that will begin to address the problems outlined above.

Regards,



Eliot G. Protsch

cc: James P. Torgerson, President & CEO, MISO  
Michehl R. Gent, President & CEO, NERC  
Daniel P. Skaar, CEO, MAPPOR  
Richard A. Bulley, Executive Director  
John J. Marschewski, Jr., President  
Douglas C. Collins  
Dave Acton



## NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

Princeton Forrestal Village, 116-390 Village Boulevard, Princeton, New Jersey 08540-5731

October 8, 2003

Mr. Eliot Protsch, President  
Interstate Power and Light  
4902 N. Biltmore Lane  
P.O. Box 77007  
Madison, Wisconsin 53707-1007

Dear Mr. Protsch:

NERC wants to fully understand your concern about the coordination of transmission service and the potential impacts on reliability described in your recent letter to Bill Phillips of MISO and Lou Leffler of NERC. To that end, and to address both the reliability and business aspects of this issue, NERC is willing to arrange for an initial discussion at its November 2003 standing committees' meetings. We could bring together representatives of our Operating, Planning, and Market Committees, who are all meeting at that time, along with representatives of the North American Energy Standards Board (NAESB), relevant ISOs/RTOs, Regional Councils, and your company to participate in this initial discussion.

While I don't want to prejudge what might come out of this initial discussion and follow-on activities, NERC could do several things to address the specific reliability concerns raised in your letter. For example, NERC could reactivate the Proxy Flowgate Task Force of our Operating Reliability Subcommittee. This task force had been considering ways to adjust the current TLR process to allow Reliability Coordinators to more effectively manage congestion on the system by allowing the curtailment of more of the transactions that are truly impacting a constrained facility, while allowing those transactions with little or no impact on the constrained facility to continue flowing. In addition, the NERC IDC Granularity Task Force is already working towards increasing the granularity of the data used by the IDC to improve its transaction and Network Service/Native Load modeling accuracy. Their work could be helpful in addressing some of your issues.

To address the coordination of transmission service concerns that result from the disparate calculations of ATC/AFC at the "seams" among adjacent regions, NERC notes that it is transitioning its existing Operating Policies and Planning Standards to new Reliability Standards using a new standards development process that is designed to focus on the reliability aspects of the new standards and to defer those features that are oriented towards business practices to other organizations, namely NAESB and the ISO/RTO Council. The "Coordinate Interchange" standard currently under development by NERC would address some of the reliability concerns you expressed, although the congestion management/business practice criteria you are referring to would not be included in the new standard. However, NAESB has initiated a proposal for drafting a companion business practice to the NERC "Coordinate Interchange" standard, which could address the equity concerns raised in your letter.

Mr. Eliot Protsch  
October 8, 2003  
Page Two

Representatives from your organization could provide valuable input to that proposal, as well as to the NERC standards development effort, and I encourage your firm to actively participate in both efforts.

Please let me know if you would like NERC to initiate a discussion of your issue at its upcoming meetings in November as suggested above.

Yours truly,

A handwritten signature in black ink, appearing to read "D. Nevius". The signature is stylized with a large initial "D" and a long horizontal stroke at the end.

David Nevius  
Senior Vice President

cc: James P. Torgerson, President & CEO, MISO  
Michehl R. Gent, President & CEO, NERC  
Daniel P. Skaar, CEO, MAPP COR  
Richard A. Bulley, Executive Director, MAIN  
John J. Marschewski, Jr., President, SPP  
Douglas C. Collins, Alliant Energy  
Dave Acton, Alliant Energy  
NERC Technical Steering Committee



MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR, INC.

**WILLIAM C. PHILLIPS**  
Vice President, Operations  
Direct Dial: 317-249-5420  
E-mail: [wphillips@midwestiso.org](mailto:wphillips@midwestiso.org)

October 9, 2003

Eliot G. Protsch, President  
Interstate Power and Light Co.  
Alliant Energy Corporation  
P.O. Box 351  
Cedar Rapids, IA 52406-0351

Dear Mr. Protsch:

Thank you for your letter of September 9, 2003, regarding Alliant Energy's concerns with coordination of transmission service and equity in NERC TLR procedures. The Midwest ISO is committed to working with Alliant Energy and all other involved parties to improve coordination amongst transmission providers and identify enhancements in the methodologies for reliably and equitably unloading the transmission system when necessary.

Your letter raises concerns about the coordination of transmission sales between the Midwest ISO and adjacent systems of MAPP, SPP, MAIN, and Associated Electric. The letter also raises questions about the NERC IDC's ability to adequately and equitably curtail transactions due to a single cutoff threshold of 5%. Specifically, regarding coordination between the Midwest ISO and neighboring systems, Alliant suggests that ATC calculation coordination be increased and that OASIS source/sink information be reviewed for completeness, accuracy and proper utilization. Alliant also asks the Midwest ISO to submit an Attachment K, presumably for the purpose of providing compensation to generators for redispatch.

The Midwest ISO exchanges ATC information with the neighboring systems of MAIN, MAPP, SPP, and PJM. The Midwest ISO posts Midwest ISO AFC data for use by these entities in evaluating transmission service requests under their tariffs. The Midwest ISO imports ATC information from these entities for use in evaluating Midwest ISO transmission service requests. Prior to receipt of your letter, the Midwest ISO and the SPP finalized arrangements to exchange additional information on the Midwest ISO flowgates, including flowgates on the Alliant system. Since receiving your letter, we have requested that MAPP include three additional Midwest ISO flowgates into MAPP's processes. These three flowgates were reviewed with Alliant staff and are flowgates in Alliant's Iowa service area. MAPP requires that operating guides be developed for each monitored flowgate. Midwest ISO will coordinate with Alliant staff in the development and submission of the necessary documentation. A fourth flowgate in Alliant's Wisconsin service area will also be submitted for inclusion in MAPP's process. Although the MAPP Regional Transmission Committee must approve these requests to include non-MAPP flowgates into the MAPP process, we will press for that approval with the expectation that all four be incorporated within two months.

We understand that Alliant is also concerned that the analysis of transmission service requests on the SPP OASIS may not adequately encompass the complete transaction intended by the customer. The SPP is being contacted to determine the feasibility of expanding SPP's list of sources/sinks for evaluation of transmissions service request impacts on Midwest ISO flowgates.

Through previous discussions with Alliant staff, we know that Alliant is concerned with MAPP's use of generator specific calculations when evaluating transactions that may in fact be system participation transactions. Midwest ISO staff has previously participated in discussions with MAPP concerning this issue. While MAPP has instituted procedures requiring customers to utilize the specific generation identified on firm MAPP Schedule F transmission service reservations, we believe that the manual enforcement mechanism is too time-consuming and is applied on only an intermittent basis and thus may not be satisfactory. The Midwest ISO agrees with Alliant that a more equitable analysis of MAPP transmission service is called for. We will pursue this with MAPP and expect that they either (a) expand the monitoring and enforcement of MAPP requirements that schedules match reservations or (b) analyze short-term transmission service under MAPP's Schedule F and individual MAPP OATTs on a control area to control area basis, the same basis that the NERC IDC curtails interchange transactions.

Regarding coordination with Associated Electric, AECI is a member of the Southeastern Electric Reliability Council, not a FERC jurisdictional utility, and has to date not participated in coordination arrangements with the Midwest ISO. We believe that as a NERC member, AECI should coordinate operations with neighboring systems to avoid causing undue burden on those systems. It is our expectation that the combined influence of the Midwest ISO, NERC, MAPP and SPP can achieve adequate coordination arrangements with AECI, and the Midwest ISO will take the lead in that effort.

The Midwest ISO agrees with Alliant that the NERC policy of a fixed 5% threshold is inequitable in cases where a facility is impacted by a sizable set of transactions with a percent impact below 5%. The fixed 5% minimum threshold potentially results in decreased transmission grid reliability when firm transactions with a 5% impact are curtailed while non-firm transactions with impacts below 5% go untouched. The Midwest ISO has long supported a variable threshold, either determined by voltage of relevant facilities or as determined by the transmission owner on a case-by-case basis. We will take a more proactive role with NERC to move this issue forward. We are also investigating filing revisions to the Midwest ISO OATT with the FERC to provide for lower thresholds for non-firm curtailments. Key to this will be the inclusion of all schedules, rather than just schedules under the Midwest ISO OATT. We would propose that, in the name of reliability, curtailment thresholds below 5% be utilized when curtailing non-firm transactions in order to preserve firm schedules and NNL delivery.

Alliant also suggests that the Midwest ISO submit an Attachment K. The Midwest ISO intends to address the issue of congestion in its market operations in 2004. Until then, the Midwest ISO is committed to working with Alliant and other parties to reduce, to the greatest extent possible, the occurrences of congestion resulting in firm curtailments. The Midwest ISO is developing generator compensation provisions as part of its FERC Order 2003 compliance filing and the Operating Protocols for Existing Generators compliance filing. This will permit the Midwest ISO to compensate generators for emergency redispatch directives.

In summary, the Midwest ISO commits to take the following actions:

1. Continue to improve the AFC coordination with MAPP, MAIN, PJM and SPP.
2. Secure MAPP approval to include additional Alliant flowgates in its processes.
3. Have SPP capture true impacts of SPP transactions on Midwest ISO flowgates.
4. Secure MAPP approval to either improve the monitoring and enforcement of its scheduling requirements or change its analysis of short-term transmission service to a control area to control area basis.

5. Take a lead role with MAPP, SPP, and NERC to achieve appropriate coordination with AECl.
6. Take the lead within NERC's structure to obtain approval to allow for variable thresholds in the TLR procedures to promote equity and system reliability.
7. Investigate modifications to the Midwest ISO's OATT to provide for the provision of variable thresholds in curtailments.

Alliant's offer of support and assistance in pursuing equitable solutions to these challenges is appreciated. Alliant's support in the various forums of NERC, MAPP and FERC will prove vital to expeditious resolution of these issues.

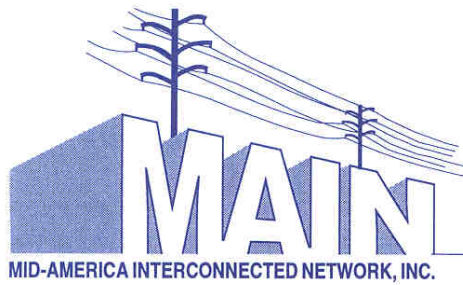
The Midwest ISO will provide regular updates of these efforts to Alliant through the Midwest ISO Operations Support Group and through direct communications with Alliant staff when appropriate. Please do not hesitate to contact me or other Midwest ISO staff. We are also willing to meet directly with Alliant and other interested parties to address these issues.

Once again, thank you for the opportunity to work with Alliant toward improving transmission system operations reliability and enhancing equity in the wholesale energy market in the Midwest and beyond.

Regards,

William C. Phillips  
Vice-President, Operations  
Midwest ISO

cc: Lou Leffler, Manager Critical Infrastructure, NERC  
James P. Torgerson, President & CEO, MISO  
Michael R. Gent, President & CEO, NERC  
Daniel P. Skaar, CEO, MAPPCOR  
Richard A. Bulley, Executive Director, MAIN  
John J. Marschewski, Jr., President, SPP  
Douglas C. Collins, General Manager Transmission Services, Alliant Energy  
Dave Acton, Manager GENCO System Operations, Alliant Energy  
William J. Head, COO, MAPPCOR



939 Parkview Boulevard  
Lombard, IL 60148-3267  
(630) 261-2600  
(630) 691-4222 FAX



October 17, 2003

Richard A. Bulley  
Executive Director  
630-261-2626  
rab@maininc.org

Mr. Eliot G. Protsch,  
President, Interstate Power and Light Co.  
Alliant Energy Corp.  
P. O. Box 351  
Cedar Rapids, IA 52406-0351

Dear Mr. Protsch:

MAIN has reviewed your letter of September 9, 2003, and we agree with several of its points. MAIN, too, is affected by the constraints in eastern Iowa. As a result we initiated coordination with the MAPP, MISO and SPP early last summer, and will continue in this effort.

MAIN is particularly concerned with the effectiveness of curtailments in the IDC. While the IDC effectively does the computations that it has been designed to do, its effectiveness is hampered by the lack of system model granularity. It is this lack of granularity that allows "power [to be] 'contractually' rerouted around constraints although in the end, impacts of transactions to the eastern Iowa grid remain unchanged."

MAIN requested changes to the IDC to improve the granularity for transactions from specific generators in the region to more accurately model the real flows. One of the generators that often impacts the flowgates in eastern Iowa was included and referenced in this request. The request was rejected by the NERC MIC as a comparability issue, but NERC committees agreed to pursue additional granularity in the IDC. This has not yet occurred.

As an interim alternative MAIN and MISO developed a joint procedure to off load non-firm transactions sourcing from specific generation after all nonfirm transactions have been curtailed and before firm service is curtailed. This procedure has been used in the recent TLRs involving transmission in eastern Iowa. However, we consider this to be only a stopgap measure.

MAIN does have concerns about lowering the threshold below 5% to relieve congestion. Transactions originating in MAIN but sinking to the east or south may have little or no

impact on the flowgate, but would likely be curtailed due to the inaccuracy of the IDC with the lack of granularity

MAIN is also impacted by the marginally adequate transmission in Iowa. Your letter states that flowgates in eastern Iowa are impacted by MAIN, SPP, Associated Electric (AECI), MAPP, and MISO. MAIN currently exchanges data with MISO and MAPP and is receiving data from SPP to coordinate the transaction sales.. MAIN has no first hand information on what AECI is doing to address third party limitations when it grants transmission service.

MAIN is continuing to make improvements to the coordination of AFC values. For instance, MAIN and MISO are currently developing a procedure by which MAIN can reflect any changes in MISO limitations into our monthly posted ATC values once every two weeks as calculated by MISO. A similar enhancement to our hourly and daily ATC calculations was completed in August of this year.

It should be noted that current plans are for ATC and RC services for ComEd to be transferred to PJM within the next several months, and they need to be involved in this activity also.

To summarize we plan to continue to address these issues in the following forums:

- Work within the NERC community to improve the IDC process by increasing granularity.
- Continue to work with SPP and MISO to improve the ATC process by coordinating transaction and limit information.

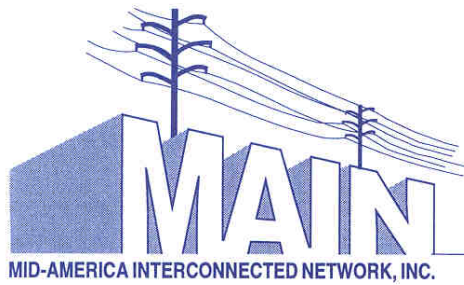
I look forward to continuing to work together on these important issues.

Sincerely,

Richard A. Bulley

Copies:

James P. Torgerson  
Michehl R. Gent  
Daniel P. Skaar  
John J. Marschewski  
Douglas C. Collins  
Dave Acton  
Lou Leffler



939 Parkview Boulevard  
Lombard, IL 60148-3267  
(630) 261-2600  
(630) 691-4222 FAX



October 28, 2003

Richard A. Bulley  
Executive Director  
630-261-2626  
rab@maininc.org

Mr. Elliot G. Protsch,  
President, Interstate Power and Light Co.  
Alliant Energy Corp.  
P. O. Box 351  
Cedar Rapids, IA 52406-0351

Dear Mr. Protsch:

My October 17 letter to you requires clarification. In the fifth paragraph It stated:

"Main does have concerns about lowering the threshold below 5% to relieve congestion. Transactions originating in MAIN but sinking to the east or south may have little or no impact on the flowgate, but would likely be curtailed due to the inaccuracy of the IDC with the lack of granularity."

The second sentence is true. However, it ignores the many other considerations relative to the issue. As a result the discussion is incomplete, and since MAIN has not yet developed a position on this issue the paragraph might better be deleted from my letter.

Sincerely,

Richard A. Bulley

Copies:  
James P. Torgerson  
Michehl R. Gent  
Daniel P. Skaar  
John J. Marschewski  
Douglas C. Collins  
Dave Acton  
Lou Leffler

DRAFT NOTICE

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

North American Electric Reliability Council

Docket No. ER00-1666-000

NOTICE OF FILING

(                      )

Take notice that on \_\_\_\_\_, 2004, the North American Electric Reliability Council (NERC) submitted for filing a statement that it has extended the test revision to its Transmission Line Loading Relief procedures on four Alliant West flowgates. NERC states the test period will extend to March 31, 2005.

Any person desiring to intervene or to protest this filing should file with the Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. All such motions or protests should be filed on or before the comment date, and, to the extent applicable, must be served on the applicant and on any other person designated on the official service list. This filing is available for review at the Commission or may be viewed on the Commission's web site at <http://www.ferc.gov>, using the **eLibrary** (FERRIS) link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, please contact FERC Online Support at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov) or toll-free at (866) 208-3676, or for TTY, contact (202) 502-8659. Protests and interventions may be filed electronically via the Internet in lieu of paper; see 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's web site under the "e-Filing" link. The Commission strongly encourages electronic filings.

Comment Date: