



**Volume**

**1.0**

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# **MAPP POLICIES AND PROCEDURES FOR TRANSMISSION OPERATIONS**

**February 1, 2007**

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**Version 1.5**

## **Disclaimer**

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## Document Change History

Issue	Reason for Issue	Date
0.1	Initial publication of changes due to the Seams Operating Agreement and MISO-MAPP Regional Tariff Administration Infrastructure improvements for review. Reviewed by the MAPP Transmission Schedules, Compensation, and Compliance Subcommittee at their conference call on January 17, 2006	January 16, 2006
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1.3	Revised Section 11 in Appendix F of the MAPP Policies and Procedures.	October 5, 2006
1.4	Added Section 2.7.1 Customer Initiated Review of the Results of a MAPP Schedule F Request Evaluation.	December 1, 2006
1.5	Modified section 2.16.4 MAPP Schedule F Monthly Billing Procedure to accommodate member invoicing for the Midwest CRSG	February 1, 2007

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# 1 Introduction

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This document contains the policies and procedures and business practices used by the MAPP Transaction Coordinator to administer Schedule F and the MAPP OASIS node and used by the MAPP Transmission Providers to administer their Open Access Transmission Tariffs. These business practices are intended to supplement the **MAPP Restated Agreement**, Seams Operating Agreement between the Midwest ISO and MAPPCOR, FERC **888**, **889** and **889A**, and relevant actions by MAPP Committees, and to the extent that there is a conflict between the prior documents and these practices, the prior documents control.

This document will be updated periodically based on decisions by the MAPP Committees or future FERC rulings. Each time a new version of this document is released, it is distributed to the MAPP membership of the MAPP Regional Transmission Committee.

If you have questions about this document please contact the MAPP Transaction Coordinator at:

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<i>MAPP OASIS Node</i>	<a href="http://www.oatioasis.com/">http://www.oatioasis.com/</a>
<i>MAPP Schedule F Rates</i>	<a href="https://mapp.mcghware.com/">https://mapp.mcghware.com/</a>
<i>MAPP Loss Repayment</i>	<a href="https://mapp.mcghware.com/">https://mapp.mcghware.com/</a>

## 1.1 Background

MAPP is an association of electric utilities in the Upper Midwest and serves as an umbrella organization for two separate functions:

- A FERC approved Regional Transmission Group, providing open access to the region's transmission system performing transmission planning, and establishing and implementing a regional transmission tariffs; and
- A Generation Reserve Sharing Pool

MAPP members include investor-owned utilities, power marketers, cooperatives, municipals, public power districts, independent power producers, industry associations, and state regulatory agencies.

## **1.2 Use of the MAPP Transmission System and Individual MAPP Member Tariff Transmission Systems**

All uses of the MAPP Transmission System or Individual MAPP Member Tariff Transmission Systems shall be reserved on the applicable MAPP Transmission Provider OASIS pages. This includes transmission service that enters, passes through, or exits MAPP Transmission System or Individual MAPP Member Tariff Transmission Systems. All transmission requests that are subject to Available Flowgate Capacity (AFC)/Available Transfer Capacity (ATC)/Available Share of Total Flowgate Capacity (ASTFC) analysis shall be made on the MAPP OASIS node and be evaluated through the MAPP Regional Request Evaluation Process.

## **1.3 Transmission Service Request Evaluation on the MAPP OASIS**

All valid transmission service requests submitted on the MAPP Schedule F OASIS or MAPP Member Tariff OASIS are evaluated based on the queue time of the OASIS request. The evaluation results of the MAPP Request Evaluation Process for each request are available through the Request Evaluation Results posting.

# **2 MAPP Schedule F Regional Tariff**

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MAPP Schedule F Open Access Transmission Tariff (OATT) is a regional tariff administered by the Contractor identified in the **MAPP Restated Agreement**. In accordance with Section 2.1 of the MAPP Schedule F OATT can be used for point-to-point transmission service utilizing the MAPP Transmission System that is up to 12 consecutive months in duration.

Transmission service not available under Schedule F will be available under the Transmission Providers' Open Access Transmission Tariffs, or other applicable tariff.

These Policies and Procedures apply to transmission service provided over the entire MAPP Transmission System, which is defined as the Transmission Owning Members in the MAPP Regional Transmission Group.

## **2.1 MAPP Transmission System**

The term "MAPP Transmission System," used throughout this document is defined in the **MAPP Restated Agreement**:

**The composite of all contiguous networked, synchronously operated 115 kV and above (or 69 kV as specified in Attachment D) transmission facilities owned or controlled by RTC Members, provided that such transmission facilities of the RTC members shall be (i) located within the shaded North Central geographic area designated in the map in Exhibit F of the Restated Agreement, (ii) directly interconnected with transmission facilities located in the area specified in subsection (i), or (iii) interconnected with facilities located in the area specified in**

**subsection (i) through the transmission facilities of another RTC member or RTC members. (MAPP Restated Agreement - Exhibit C – Schedule F: Open-Access Transmission Tariff – Section 1.47).**

A Transmission Provider under the MAPP Schedule F tariff is a Transmission Owning Member of the Regional Transmission Committee (or its Designated Agent) that owns, controls, or operates a portion of the MAPP Transmission System, unless the RTC member participates in a regional transmission organization by making its facilities available under the tariff of a FERC-accepted regional transmission organization, or independent transmission company that is a member of a FERC-accepted regional transmission organization according to Sections 1.45 and 2.2 in MAPP Schedule F tariff.

Transmission Providers may own transmission facilities that are not part of the MAPP Transmission system (these are typically either below 115 kV or not operated synchronously with the MAPP Transmission System.) Transmission access to these portions of the Transmission Provider’s transmission facilities is governed by the Transmission Provider’s tariffs. Transmission service over these facilities is not available under MAPP Schedule F OATT. Transmission Customers must make arrangements directly with the Transmission Provider(s) for service over such facilities.

## **2.2 Who Can Use the MAPP Schedule F Regional Tariff**

A Transmission Customer is an eligible customer. An eligible customer must have executed service agreements (firm or non-firm) with the Contractor before transmission service can be requested via the MAPP OASIS. MAPP will conduct a credit check and may require a deposit prior to enabling an entity to request transmission service.

The Service Agreement Application is posted on the OASIS at the following location:

<https://www.oatioasis.com>

## **2.3 MAPP Schedule F Transmission Service Types**

### **2.3.1 Point-to-Point**

The following **Non-firm** transmission service is available under MAPP Schedule F:

- *Hourly Non-Firm – HNF*  
The service starts at the beginning of the clock hour and stops at the end of the clock hour.
- *Daily Non-Firm – RNF Daily*  
The service starts at 00:00 of any date and stops more than 24 hours later and less than 168 hours later.
- *Weekly Non-Firm – RNF Weekly*

The service starts at 00:00 of any date and stops at 00:00 more than one week later, but less than four weeks.

- *Monthly Non-Firm – RNF Monthly*  
The service starts at 00:00 of any date and stops at 00:00 more than 30 days or one calendar month later and less than 6 months later.

The following **Firm** transmission service is available under MAPP Schedule F:

- *Daily Firm – FCTS Daily*  
The service starts at 00:00 of any date and stops more than 24 hours later and less than 168 hours later.
- *Weekly Firm – FCTS Weekly*  
The service starts at 00:00 of any date and stops at 00:00 more than one week later, but less than four weeks.
- *Monthly Firm – FCTS Monthly*  
The service starts at 00:00 of any date and stops at 00:00 more than 30 days or one calendar month later and less than 12 months later.

### **2.3.2 Network**

Network transmission service is not available under the MAPP Schedule F Tariff.

## **2.4 MAPP Schedule F Transmission Service Request Profiles**

A multiple period hourly and secondary non-firm transmission service may be requested with varying profile. All other MAPP Schedule F transmission service types shall have a constant megawatt profile.

## **2.5 Annulment of a MAPP Schedule F Transmission Reservation**

### **2.5.1 Transmission Customer Requested Annulment**

The MAPP Transaction Coordinator according to the following criteria may annul a CONFIRMED MAPP Schedule F transmission reservation, at the request of the Transmission Customer if:

- *The reservation is QUEUED after-the-fact*  
A transmission reservation is after-the-fact when the queued time is greater than the end time. This type of reservation may be annulled at any time for any reason provided that no energy has been reported against the reservation.
- *Contractor computer system problems*

The MAPP Transaction Coordinator is allowed to use discretion to annul a reservation, at the request of the Transmission Customer, where the error was caused by Contractor computer hardware, software, or communication system problems.

The MAPP Transaction Coordinator will not annul a CONFIRMED MAPP Schedule F reservation for the following reasons, and it is not limited to:

- Incorrect Start/Stop Time
- Incorrect MW Profile
- Incorrect Source/Sink
- Incorrect POR/POD
- **Duplicate transmission service requests**

*The MAPP Transmission Schedules, Compensation, and Compliance Subcommittee (TSCSC) of the Regional Transmission Committee (RTC) may annul a CONFIRMED MAPP Schedule F reservation for any reason that the committee determines legitimate at the request of the Transmission Customer.*

### **2.5.2 Contractor Initiated Annulment on Behalf of the MAPP Transmission Providers**

In the event that a Schedule F transmission service request reaches CONFIRMED status and subsequently it is determined by the MAPP Transaction Coordinator that errors made by the Transmission Customer results in significant violation of the MAPP Policies and Procedures or the MAPP Schedule F Tariff, the MAPP Transaction Coordinator shall annul such service and advise the Customer of such annulment and the justification within 24 hours of the confirmation.

In the event that a Schedule F Transmission Service request reaches CONFIRMED status and subsequently it is determined by the MAPP Transaction Coordinator that the service should not have been placed in the ACCEPTED or COUNTEROFFER status due to errors made by the Contractor, its agents, or other transmission providers (MISO, PJM, SPP, etc.) and in, the sole discretion of the MAPP Transaction Coordinator, such error will impact the reliability of the regional transmission system, the MAPP Transaction Coordinator may annul such service and shall advise the Customer of such annulment and the justification within 24 hours of confirmation.

*The Transmission Customer, Transmission Provider, or Contractor may request that the MAPP Transmission Schedules, Compensation, and Compliance Subcommittee (TSCSC) of the Regional Transmission Committee review any annulment initiated by the MAPP Transaction Coordinator.*

## **2.6 Ancillary Services for MAPP Schedule F**

The Transmission Customer is required to purchase Scheduling and Tariff Administration as described in Schedule 1 of the MAPP Schedule F OATT.

Ancillary Services, other than Scheduling and Tariff Administration as described in Schedule 1, shall be provided and purchased as needed or required pursuant to the Transmission Providers' OATT.

There is no charge under Schedule F for Schedule 2: Reactive Supply and Voltage Control from generation sources; provided that, in determining that available transmission capacity exists for service, such service must be able to be performed with voltages maintained within acceptable limits without modification of the Transmission Provider's selected order of generation dispatch and operation.

The use of MAPP Schedule F service may require the Transmission Customer to sign Service Agreements with MAPP Transmission Provider(s) for Ancillary Services.

## **2.7 Requests for Transmission Service on the MAPP Schedule F OASIS**

Once a transmission service request (TSR) is QUEUED on the MAPP Schedule F OASIS it is checked for deficiencies and validated so that the transmission service request can be evaluated accurately.

If the TSR satisfies all the requirements of MAPP Schedule F, it is considered a Completed Application and the status is set to RECEIVED. If the request is deficient, the request status will be set to a status of INVALID, and the Transmission Customer must re-submit a new request.

See Appendix C for request validation criteria, examples, and solutions to common deficiencies.

When evaluating a Completed Application for MAPP Schedule F service, the transmission service request will be evaluated using the MAPP Regional Request Evaluation process, which performs an online system impact study, as described in Appendix F. The Contractor based on this analysis administers approval of MAPP Schedule F service.

Responses to transmission service requests are in the form of status changes on the OASIS and associated OASIS e-mail or HTTP notification initiated by the status changes. If a timely response to a request for service is not forthcoming, it is the Transmission Customer's obligation to contact the MAPP Transaction Coordinator via e-mail, fax, or phone to resolve the problem.

### **2.7.1 Customer Initiated Review of the Results of a MAPP Schedule F Request Evaluation**

This procedure applies only to situations where a customer has been refused a request for MAPP Schedule F transmission service and seeks to raise issues concerning the correctness of the evaluation process. It does not pertain to the ongoing maintenance and upgrading of the MAPP Regional request evaluation process.

The MAPP Regional request evaluation process employs current transmission models and other data to determine the ability of the transmission system to accommodate a MAPP Schedule F

transmission service request based on a detailed representation of the source and the sink. This automated process is designed to produce results similar to a detailed System Impact Study (SIS) and thus reduce the need to conduct any further studies.

Under the MAPP Regional request evaluation process, any Firm MAPP Schedule F Transmission Service request that “fails” is REFUSED unless the customer provides proper notification of the intent to seek FRD. The Customer may request that the MAPP Transaction Coordinator review the calculations under the following conditions:

The Customer has had a request for firm MAPP Schedule F transmission service with a term of monthly or longer refused.

The Customer has reason to believe that posted ATC/AFC/ASTFC values, data, or algorithms utilized by the MAPP Request Evaluation Process are incorrect.

The Customer initiates a request for review by contacting the MAPP Transaction Coordinator within one business day of the request being REFUSED.

The process of the Customer to request a review shall be as follows:

Customer notifies the MAPP Transaction Coordinator, within one business day of the request being REFUSED, via email, or written notice by fax if email is not available, of the desire to have the ATC/AFC/ASTFC calculation reviewed, along with the justification.

Customer then provides supporting information to the MAPP Transaction Coordinator within two business days of initiating the review.

Upon the receipt of supporting information, the MAPP Transaction Coordinator shall post a notice on the MAPP Schedule F OASIS that a review is underway. The notice shall include the flowgate(s) and timeframe(s) in question.

The MAPP Transaction Coordinator shall evaluate the request for review within two (2) business days of receiving supporting information from the Customer. In performing this evaluation, the Transaction Coordinator will use as criteria, amongst other technical factors, whether the models and systems used in making the calculations in question are accurate and conform to the MAPP Schedule F tariff and these Policies and Procedures.

If the review results in no changes to data or processes, the MAPP Transaction Coordinator will update the OASIS posting to the effect that the review is complete with no further action anticipated. The Transaction Coordinator will inform the initiating Customer that the OASIS posting has been updated within 24 hours following the posting update.

If the review determines that an error existed and persists in the model, supporting data, or algorithms used to determine ATC/AFC/ASTFC, the MAPP Transaction Coordinator shall update the OASIS posting by adding the following information:

A general description of the required change to the calculation process.

The effective date and time of the change (prospective and at least 24 hours after the time of posting this updated information.)

A statement that MAPP Schedule F requests will be evaluated utilizing the revised procedure or data if queued after the effective date and time of the correction.

In the case where a prospective change is to be made, to close the issue with the Customer, the MAPP Transaction Coordinator will inform the Customer that a posting related to their inquiry has been made to the OASIS. This information shall be provided to the Customer within 24 hours after the posting has been updated.

MAPP Schedule F transmission service requests submitted after the effective date given in the OASIS posting will be evaluated using the revised information.

The MAPP Transaction Coordinator shall periodically report to the Schedules, Compensation and Compliance Subcommittee (TSCSC) the number of reviews requested, the nature of the requests, the time necessary to complete the review and the disposition of each review. Based on these reports the TSCSC may elect to modify this procedure.

## **2.8 Time Zone Used to Administer MAPP Schedule F**

All requests made on the MAPP OASIS will be validated, evaluated and retracted in the prevailing Central Time, either Central Standard or Central Daylight.

## **2.9 Retraction of a MAPP Schedule F Request**

If the Transmission Customer fails to confirm an ACCEPTED or COUNTEROFFER request for Schedule F within the required time limit, the request is automatically RETRACTED. Therefore, it is important that the Transmission Customer queries for their requests and sets the status to CONFIRMED before the confirmation time limit expires.

*A pre-confirmed transmission service request that is offered partial service will be set to a status of COUNTEROFFER, therefore the Transmission Customer must manually confirm this request.*

See Appendix A for the MAPP Schedule F Timing Requirements associated with each service type.

## **2.10 Pre-emption**

If the MAPP Request Evaluation Process determines that there is insufficient Available Flowgate Capability (AFC) and/or Available Transmission Capability (ATC) to accommodate a request for transmission service, then it will check if there are one or more existing short-term requests that can be pre-empted in order to make room for the new Competing Request. A Contending Request (a request vulnerable to being pre-empted by the new Competing Request) must meet the following criteria:

1. Must be of same priority or lower.
2. Must be shorter in duration

### **Determination of a Contending Request Based on Priority and Duration**

		<b>PRIORITY</b>		
		Higher	Same	Lower
<b>D U R A T I O N</b>	Longer	No	No	No
	Same	No	No	Non-Firm: Yes Firm: N/A*
	Shorter	No	Yes	Non-Firm: Yes Firm: N/A*

\* Note that since impacts of non-firm reservations are not included in the firm AFC values bumping non-firm reservations will not create firm AFC.

3. Must have the same source and sink for AFC and same POR or POD for ATC.
4. The period of service for the Contending Request must overlap with the period that has negative AFC and/or ATC
5. The Contending Request must be “Conditional”:

<b>DURATION</b>	<b>CANNOT BE PRE-EMPTED</b>
Monthly Firm and Non-firm	Less than 1 month prior to commencement of service
Weekly Firm and Non-firm	Less than 1 week (7 days or 168 hours) prior to commencement of service
Daily Firm	Less than 1 day (24 hours) prior to commencement of service
Daily Non-Firm	After 12:00 noon of the day prior to commencement of service

Once a Contending Request(s) is (are) identified, the Competing Request is put in STUDY status.

The MAPP Transaction Coordinator will review the Competing and Contending Requests identified and select the reservation(s) to be pre-empted. If there is not enough transmission to displace to create AFC/ATC for the Competing Request, then the status of the Competing Request will be set to REFUSED. If there is sufficient AFC/ATC to displace to accommodate the Competing Request, then the MAPP Transaction Coordinator will contact the customer of the Competing Request, informing them that if they wish to pre-empt a Contending Request, they must confirm their request immediately upon acceptance. This confirmation is done with the knowledge that the Competing Request may be matched within 24 hours.

The MAPP Transaction Coordinator then contacts the Contending Request Customer(s), informing them of their right of first refusal.

If the customer wishes to match the Competing Request, they must inform the MAPP Transaction Coordinator within 24 hours, or prior to the scheduling deadline, whichever is

earlier. The Transaction Customer must submit a new transmission service request with a request type of MATCHING and reference their Contending reservation in the Related Ref field. A TSR with a Request Type of MATCHING must be identical to the Competing Request.

If the matching request (Contending Request) is in the confirmed state, the MAPP Transaction Coordinator will set the status of the Competing Request to ANNULLED.

If the customer of the Contending Request chooses not to match the Competing Request, the status of the Contending Request will be set to DISPLACED.

MAPP Schedule F Transmission Service can only pre-empt MAPP Schedule F Transmission Service.

## **2.11 Partial Service**

The MAPP Regional Request Evaluation Process will identify partial service for firm and non-firm transmission service requests that are limited by AFC on MAPP and Reciprocally Coordinated flowgate(s).

The MAPP Transaction Coordinator will manually determine if partial service can be granted for ASTFC.

If it is determined that adequate transmission capacity on MAPP and Reciprocally Coordinated flowgate(s) does not exist to satisfy the full amount of a request for non-firm or firm transmission service, partial service may be offered, if available. Partial period service may be offered as long as the service available meets the minimum term requirements of the transmission service type requested.

When partial service is offered under MAPP Schedule F, the status of the request is changed to COUNTEROFFER on OASIS.

**It is important that the Transmission Customer check the Capacity Granted field of transmission service request in the status of COUNTEROFFER before confirming it to determine if the request was approved for the full amount or partial service.**

## **2.12 Accommodating a Firm MAPP Schedule F Transmission Request with Redispatch**

### **2.12.1 Scope**

The MAPP Schedule F flowgate redispatch criteria or methodology shall apply to all flowgates recognized by the MAPP Regional Request Evaluation.

The Contractor has the authority to approve or deny Flowgate Redispatch (FRD) for MAPP Schedule F transmission service that ends less than one year from the queue date of the

Transmission Service Request (TSR). All other requests for FRD must be reviewed and approved by the MAPP Transmission Operating Subcommittee (TOS) and MAPP Transmission Schedules, Compensation, and Compliance Subcommittee (TSCSC). The Contractor will coordinate with the MAPP Transmission Provider when granting conditional firm service. The Contractor will process FRD requests only during business days.

### **2.12.2 Coordination of FRD for non-MAPP Schedule F Transmission Provider Owned Flowgates**

Information regarding all FRD approvals by the Contractor will be made available to the impacted Transmission Providers.

### **2.12.3 Methodology**

Flowgate Redispatch (FRD) is a redispatch scheme whether it is a bilateral transaction between a Transmission Customer and Generator(s) or redispatch of existing Designated Network Resources (DNR), which “creates” Available Flowgate Capability (AFC) on a specific flowgate where insufficient AFC exists by providing a counter-flow across the flowgate(s) greater than or equal to the amount of firm AFC required to accommodate the impacts of the TSR

### **2.12.4 Flowgate Redispatch Criteria**

The criterion below is used to determine whether FRD is available. A firm TSR approved contingent on an FRD arrangement for a specific flowgate(s) is referred to as “Conditional Firm” on that specific flowgate(s).

#### **2.12.4.1 Conditional Firm Service Limit**

The sum of all “Conditional Firm” transmission service impacts granted across a specific flowgate plus all firm transmission service impacts queued prior to the conditional firm service request are included in the firm AFC calculation, which will not be allowed to exceed the Security Operating Limit (SOL) of the flowgate. The reasoning is, if the sum of all firm transmission service impacts and all “Conditional Firm” impacts exceeds the SOL of the flowgate, the FRD would potentially have to be implemented before the transaction utilizing the “Conditional Firm” reservation was implemented.

#### **2.12.4.2 Flowgate Redispatch Amount Required**

The Transmission Customer shall mitigate the TSR impacts on the constrained flowgate(s) to 0 MW. Which means the combination of the TSR impacts and the FRD impacts shall have a maximum of 0% distribution factor.

#### **2.12.4.3 Flowgate Redispatch on Simultaneously Constrained Flowgates**

The Transmission Customer shall mitigate the TSR impacts on each constrained flowgate in a manner that does not increase flow on any other simultaneously constrained flowgate.

#### **2.12.4.4 Term of the Flowgate Redispatch**

The established FRD obligation when the TSR was accepted and confirmed shall remain in effect for the term of the transmission service unless it is redirected as described in Section 2.12.4.4, displaced, superseded, or annulled.

FRD obligation is required when the TSR significantly impacts (the distribution factor is greater than or equal to the flowgate threshold) the flowgate and the AFC on the flowgate at that time is less than or equal to 0. The Transmission Customer must mitigate for the minimum increment of their transmission service, except for yearly transmission service where monthly increment is available. A TSR may not be segmented into time blocks that do not meet the minimum increment of the service type, i.e. when the entire TSR is not subject to FRD for its full term the duration of the FRD must be for a minimum of one increment and the unmitigated time blocks of the TSR must be a minimum of one increment.

For example if a monthly TSR of duration two months has an FRD obligation for the last 16 days of service, the Transmission Customer is obligated to mitigate for the entire second month. If the FRD obligation is for days 25 through 40 the Transmission Customer is obligated to mitigate for both months, or resubmit for weekly service for the first two weeks, one month of monthly service during the period of negative AFC values and weekly service for the remainder.

#### **2.12.4.5 Redirecting Firm Transmission Service with FRD**

The flowgate impacts of the firm redirect request will determine if FRD is required to grant "Conditional Firm" transmission service. This may result in a reduction or increased redispatch obligation. As with any redirect request, the MW impact on a constrained flowgate(s) shall be ignored as long as the redirect impacts are equal to or less than the MW impacts of the redirected firm reservation.

#### **2.12.4.6 Process**

The Transmission Customer can request (FRD) to accommodate a refused MAPP Schedule F Firm (TSR). The MAPP Schedule F FRD process must be completed within the transmission service type's timing requirements. See Appendix A of the document.

Once the MAPP Regional Request Evaluation Process indicates insufficient AFC to accommodate the TSR the Transmission Customer must act promptly as follows.

1. The Transmission Customer shall notify the Contractor no later than 2 business hours (6:00 a.m. to 6:00 p.m. prevailing Central time, Monday through Friday, excluding holidays) of the posting TSR evaluation results by the MAPP Regional Request Evaluation process via e-mail, or fax if e-mail is unavailable, that FRD is being requested. Upon such notification, the Contractor will set the status of the TSR to Study on OASIS in order to ensure that sufficient AFC is withheld from the market to accommodate the impacts of this TSR while the FRD is being evaluated.

If the Transmission Customer does not notify the Contractor within 2 hours, FRD shall not be available for that TSR.

2. The Transmission Customer will submit, within 1 business day of the TSR being set to study by the Contractor, via e-mail, a preliminary **MAPP FRD Request Form** to the Contractor requesting to use the MAPP Schedule F FRD process. The Transmission Customer shall contact the Contractor to verify the receipt of the e-mail. The preliminary **MAPP FRD Request Form** must include the Transmission Customers contact information and the MAPP Schedule F firm TSR number requiring FRD.

It is the Transmission Customer's responsibility to check the Request Evaluation Viewer on the MAPP OASIS information website to determine if their TSR was approved or rejected.

3. The Contractor will respond, via e-mail, with the time period(s) and relief quantity(s) required for each flowgate in order to accept a "Conditional Firm" MAPP Schedule F TSR. If the TSR is rejected on any flowgate that already has a combination of firm service queued prior to the conditional firm request and "Conditional Firm" impacts exceeding the flowgate SOL, the Contractor will inform the Transmission Customer of that fact, and set the status of the TSR to REFUSED.

*The Contractor must receive all the required documentation described below no later than 15 days from the time of refusal and no less than 2 business days prior to commencement of service. If any of these time limits is not met, the TSR will be refused, and the Transmission Customer must submit a new TSR, with a new queued time, if they wish further consideration.*

4. Once the Transmission Customer determines a viable FRD solution for a constrained flowgate(s) then the Transmission Customer completes the MAPP FRD Request Form and e-mails it back to the Contractor with supporting information. **The Transmission Customer must include the applicable energy contracts and transmissions service for redispatch between the generators.** It is the Transmission Customer's responsibility to confirm that the Contractor received this information.
5. The Contractor reviews all the submitted information, determines whether the FRD will create the necessary counter-flow to mitigate the constrained flowgate(s). If the FRD solution is valid, then the Contractor will inform the Transmission Customer that the "Conditional Firm" MAPP Schedule F TSR has been ACCEPTED.
6. The Contractor will inform the Midwest ISO West (MISO) Reliability Authority, MAPP (TOS) and MAPP (TSCSC) that a "Conditional Firm" MAPP Schedule F TSR in combination with a FRD transaction has been approved and confirmed.

The Transmission Customer must confirm the "Conditional Firm" TSR(s) within transmission service types confirmation deadlines set forth in the MAPP Schedule F Tariff Timing Requirements table.

If denied, the Contractor will refuse the "Conditional Firm" TSR and provide reasons for denial.

**The MAPP Regional Transmission Committee, its Sub-committees and the Contractor reserve the right to reject the request for situations that it believes the “Conditional Firm” reservations would not be completely mitigated by the FRD solution – even if the solution comes from one of the MAPP tools.**

### **2.12.5 FRD Tools**

The Transmission Customer shall use the MAPP Scenario Analyzer for the determination of a valid mitigation scheme. Other tools commonly available may be used to provide additional information or when MAPP Scenario Analyzer granularity is not sufficient to determine the impact of an FRD on the flowgate. The Contractor may require the use of the MAPP Scenario Analyzer prior to acceptance of an FRD.

### **2.12.6 Implementation**

Flowgate Redispatch (FRD) shall be in place when a NERC Transmission Line Relief (TLR) level 4 or higher is issued on the “Conditional” flowgate. The Midwest ISO West (MISO) Reliability Authority will request the Transmission Customer to implement the FRD transaction. If the Transmission Customer does not implement the MAPP Schedule F FRD then the “Conditional Firm” MAPP Schedule F TSR will be considered secondary non-firm. If the MAPP Schedule F FRD requires re-dispatching DNRs, the Transmission Customer shall provide data before and after the initial decrement, and at the top of each hour mitigation is required showing the output for these DNRs to the MISO Reliability Coordinator. The decrementing generator shall be limited to a maximum output not to exceed its accredited value minus the amount decremented as required by the FRD.

## **2.13 Changes in MAPP Schedule F Service Specifications**

### **2.13.1 Resale of MAPP Schedule F Transmission Service**

A MAPP Transmission Customer may resell all or a portion of its rights under its Service Agreement, however this service can only be sold to an Eligible Customer under the MAPP Schedule F tariff. The reseller will be held responsible for all terms and conditions of the Tariff. The terms and conditions of the original service remain the same. MAPP will continue to bill the reseller.

The reseller shall post the resale on the MAPP OASIS.

The following procedure must be followed in order to carry out the reassignment:

Post the reassignment of transmission service on the OASIS.

An e-mail shall be sent to the MAPP Transaction Coordinator notifying that MAPP Schedule F transmission service has been resold containing the following information:

- The ORIGINAL Assignment Reference number
- The RESALE Assignment Reference number

### **2.13.2 Redirect of Firm Service on a Non-firm Basis**

Redirecting Firm service allows the Transmission Customer to modify the POR, POD, source, or sink of a CONFIRMED reservation on a Non-firm basis, however the priority of service is treated as secondary non-firm service. The secondary service capacity can not exceed the amount of the ORIGINAL request less any other schedules utilizing the same reservation either firm or secondary non-firm.

Customers with confirmed firm Schedule F transmission reservations may redirect the service on a non-firm basis in accordance with Section 21.1 of the tariff. Such redirected service must be made on the OASIS and in accordance with the timing requirements.

### **2.13.3 Redirect of Firm Service on a Firm Basis**

The Transmission Customer may request to redirect firm transmission service on a firm basis if it meets the following conditions:

- 
- The CLASS of the REDIRECT transmission service request is FIRM.
- The REDIRECT transmission request must meet the Schedule F timing requirements.
- The request type must be REDIRECT.
- The transmission reservation being redirected must be a CONFIRMED firm Schedule F reservation.
- Customer of the REDIRECT request must be the same as the customer of the transmission reservation being redirected.

The Contractor will evaluate the request and post the results and approve or deny the request for service. If the new request is ACCEPTED, the Contractor will reduce the available scheduling capacity of the reservation being redirected for the term of the firm redirect.

If the new request is REFUSED, the request for REDIRECT on a firm basis will not be granted.

### **2.13.4 Extensions for Commencement of Service**

The MAPP Schedule F tariff does not allow the Transmission Customer to defer the commencement of service.

### **2.13.5 Rollover Rights**

The MAPP Schedule F tariff only offers short-term transmission service, therefore no rollover rights are offered.

## **2.14 Scheduling and Tagging MAPP Schedule F Transmission Service**

*MAPP is not a Regional scheduling entity.*

Transmission Customers must schedule their transactions through MAPP Transmission Providers. When a transaction enters or leaves the MAPP Transmission System region (transported to or from a non-MAPP transmission provider) the Transmission Customer must schedule the transaction with the MAPP Transmission Provider at the border

The NERC E-tag must reflect the proper use of the MAPP Schedule F Transmission tariff. Approved Alternative Control Areas for tagging can be found in the Alternative Control Area list posted on the MAPP OASIS Information Page at:

<http://toinfo.oasis.mapp.org/oasisinfo/info.htm>. Only one MAPP Schedule F transmission reservation is allowed on a tag, unless all the Schedule F reservations have the same POR/POD and Source/Sink on the tag. MAPP Schedule F Transmission Customers shall tag their schedules accordingly. MAPP control areas shall evaluate the tags accordingly.

The Transmission Provider and Control Area Operator reserve the right at anytime to **deny or curtail** a NERC E-tag if the information on the tag does not reflect the MAPP Schedule F transmission service reservation on the MAPP OASIS.

**The Reliability Coordinator reserves the right at anytime to deny a tag, change priority, or request that the reservation specified on the tag be dispatched as it was reserved.**

**The MAPP Schedule F automated tagging approval performs limited validation on a NERC E-tag, so past approval does not guarantee future approval or condone previously approved tags when the MAPP Schedule F Transmission Customer is found to be in violation of the MAPP Schedule F tariff, MAPP Policies and Procedures, or NERC Policy.**

## **2.15 MAPP Transmission Line Loading Relief**

MAPP Schedule F transmission service is curtailed using the North American Electric Reliability Council's (NERC) Transmission Loading Relief Procedures

MAPP Emergency Energy under the MAPP Generation Reserve Sharing Pool is not subject to NERC TLR.

## **2.16 Service Schedule F Rate Schedules**

### **2.16.1 Transmission Service Charge Implementation Procedures**

The rate schedules for transmission service are documented in the MAPP Restated Agreement. The following procedures will be used to administer the calculation of the transmission service charges:

1. Dynamic waivers are included for use of individual tariffs of Transmission Providers as defined in the Transmission Service Reservation. Those waivers of payment are made in addition to the existing TSC waivers on file with the Contractor.
2. The Transmission Customer identified on the request application will be responsible for transmission service charges.

3. Charges on the system of the Source (the Seller) are calculated and included.
4. The monthly transmission service rate is calculated in \$/MW/Month. The number of hours in each month varies from 672 to 744, which conflicts with having a monthly rate valid for every month in a Season. To resolve this discrepancy, the billing will be administered on an hourly basis. The posted monthly rates will be converted to hourly rates by dividing by 730 hours. The charges for each month will be based on the hourly rate times the number of hours in the month.
5. Transmission reservation demand charges for service other than HNF will be assessed in full regardless of the energy scheduled under the reservation even if service is curtailed.
6. HNF service will be assessed the demand charge except in the event that the service is curtailed by NERC TLR on a MAPP Transmission System Facility. In the event that NERC TLR curtails the HNF service on a MAPP Transmission System facility, the demand charge is based on the scheduled value, from the hour in which TLR was initiated, until the hour in which all schedules were restored. HNF curtailed for any reason other than NERC TLR on a MAPP Transmission System facility will be charged for the full reservation.
7. The Scheduling Services fee (Application Fee) will be assessed for all Completed Applications that are ACCEPTED.
8. A Completed Application that is offered partial service is charged a Scheduling Services fee only if the request is CONFIRMED.

### 2.16.2 Penalty for Unauthorized Use of Schedule F

Energy scheduled without sufficient transmission service reserved and CONFIRMED will be charged at 200% of the regular transmission rate. This penalty applies to all demand, energy, administration, and application charges.

### 2.16.3 Rate Calculation

Schedule F rates are posted at <https://mapp.mcqware.com/> under MAPP Services then Rate Viewer.

The following table describes the charges that apply for each type of service, and the tables used in the calculation of these charges:

<b>Summary of charges &amp; Tables to use By Transmission Capacity Type</b>					
<b>Type of Charge</b>	<b>Firm Service (FCTS) - Monthly</b>	<b>Firm Service (FCTS) - Weekly and Daily</b>	<b>Non-firm (RNF) - Weekly and Monthly</b>	<b>Non-firm (RNF) - Daily</b>	<b>Hourly Non-Firm (HNF)</b>
<b>MWMI reservation demand charge:</b>	Schedule 3	Schedule 3	Schedule 4	Schedule 4	Schedule 5
<b>MWMI off-peak energy charge:</b>	N\A	N\A	Schedule 5 HNF Off-Peak	Schedule 5 HNF Off-Peak	N\A
<b>MWMI on-peak energy charge:</b>	N\A	N\A	Schedule 5 HNF On-Peak	Schedule 5 HNF On-Peak	N\A
<b>Administrative charge:</b>	Schedule 1 0.20 \$/MWhr	Schedule 1 0.20 \$/MWhr	Schedule 1 0.20 \$/MWhr	Schedule 1 0.20 \$/MWhr	Schedule 1 0.20 \$/MWhr

<b>Application charge:</b>	Schedule 1 \$200	Schedule 1 \$100	Schedule 1 \$100	Schedule 1 \$100	\$0
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**2.16.3.1 Charges for Firm Service Modified on a Non-Firm Basis**

Section 21.1(a) of Schedule F describes the charges applied to service arranged under the terms and conditions described in 21.1 of Schedule F. This type of service is often referred to as “secondary” or “redirected.”

When firm service is redirected, the Transmission Customer pays an additional charge to each transmission owner based on the positive difference between the applicable HNF charge and the original firm service. When there is no positive difference, there is no additional charge. Customers pay the administrative charge on energy scheduled under the redirected reservation.

Below is an example of a firm reservation with redirected reservations and the rates assessed against each. Note that the sink system is waived under Schedule F. Therefore, there will always be some charge associated with redirecting a reservation to an alternate sink.

This example uses fictitious reservations and rates; a MAPP Schedule F rate calculation involves more than four individual MAPP Transmission Providers. This example shows the methodology used to calculate the rate for firm transmission service redirected on a non-firm basis.

Example: AAAA to BBBB Firm with AAAA-CCCC and DDDD-EEEE Non-Firm Redirects.

	AAAA to BBBB	AAAA to CCCC REDIRECT				DDDD to EEEE REDIRECT			
MAPP Schedule F Revenue Collector	Original (FIRM) Rate	HNF On-Peak	On-Peak REDIRECT from AAAA-CCCC	HNF Off-Peak	Off-Peak REDIRECT from AAAA-CCCC	HNF On-Peak	On-Peak REDIRECT from DDDD-EEEE	HNF Off-Peak	Off-Peak REDIRECT from DDDD-EEEE
WAPA	1.00	3.00	2.00	1.50	0.50	0.50	0.00	0.25	0.00
MEC	2.00	2.50	0.50	1.25	0.00	5.00	3.00	2.50	0.50
NPPD	3.00	1.00	0.00	0.50	0.00	3.50	0.50	1.75	0.00
OPPD	4.00	2.00	0.00	1.00	0.00	3.00	0.00	1.50	0.00
Rates in US\$/MWhr	\$10.00	\$8.50	<b>\$2.50</b>	\$4.25	<b>\$0.50</b>	\$12.00	<b>\$3.50</b>	\$5.00	<b>\$0.50</b>

AAAA to CCCC redirect is billed at \$2.50 per MWh on-peak and \$0.50 per MWh off-peak. DDDD to EEEE redirect is billed at \$3.50 per MWh on-peak and \$0.50 per MWh off-peak.

Note that the redirect rates will be assessed on the MWhr reserved as secondary hourly non-firm service.

Transmission customers may estimate redirect charges by accessing the MAPP Transmission Billing System (MTBS) rate calculator. This rate calculator allows customers to estimate redirect charges on existing firm reservations or on proposed (“what if”) firm reservations. The rate calculator is available at <https://mapp.mcgware.com/> under MAPP Services then Online Calculator.

**2.16.3.2 Charges for Firm Service Modified on a Firm Basis**

Section 21.2 of Schedule F describes the charges applied to service arranged under the terms and conditions described in 21.2 of Schedule F. This type of service is often referred to as “redirected.” firm.

When firm service is redirected on a firm basis, the Transmission Customer pays each transmission owner based on the higher of price between the redirected reservation charge and the original firm service reservation charge. A Transmission Customer pays an application fee, and an administrative charge on energy scheduled under the redirected reservation.

The following are examples of a firm reservation with redirected firm reservations and the transmission service charges assessed against each. These examples use fictitious reservations and rates; a MAPP Schedule F rate calculation involves more than three individual MAPP Transmission Providers. This example shows the methodology used to calculate the rate for firm transmission service redirected on a firm basis.

<b>MAPP Schedule F Transmission Reservation Examples</b>				
<b>OASIS #</b>	<b>Active Date</b>	<b>Path</b>	<b>MW</b>	<b>Redirect Of</b>
777777	03/01/2004 – 04/01/2004	AAAA – BBBB	50	
888888	03/10/2004 – 03/15/2004	CCCC – DDDD	25	777777
999999	03/12/2004 – 03/15/2004	EEEE – FFFF	25	888888

<b>Schedule 3 – Firm Rate Build-up</b>			
<b>Revenue Collector</b>	<b>Path AAAA – BBBB</b>	<b>Path CCCC – DDDD</b>	<b>Path EEEE - FFFF</b>
WAPA	1.00	1.50	1.00
OPPD	2.00	1.50	2.50
MEC	4.00	3.00	1.50
Rates in US\$/MWhr	\$7.00	\$6.00	\$5.00

<b>MAPP Schedule F Reservation 888888 Rate Build-up</b>			
<b>Revenue Collector</b>	<b>Firm Rate for Path CCCC – DDDD</b>	<b>Related Ref Path Rate AAAA – BBBB</b>	<b>888888 Redirected Firm Rate*</b>
WAPA	1.50	1.00	1.50
OPPD	1.50	2.00	2.00
MEC	3.00	4.00	4.00
<b>Rates in US\$/MWhr</b>	\$6.00	\$7.00	\$7.50

The Related Ref Path rate in this case is the MAPP Schedule F firm rate since the reservation has not been redirected. \*Compared to the rates of reservation 777777.

<b>MAPP Schedule F Reservation 999999 Rate Build-up</b>			
<b>Revenue Collector</b>	<b>Firm Rate for Path EEEE – FFFF</b>	<b>Related Ref 888888 Path Rate</b>	<b>999999 Redirected Firm Rate**</b>
WAPA	1.00	1.50	1.50

OPPD	2.50	2.00	2.50
MEC	1.50	4.00	4.00
<b>Rates in US\$/MWhr</b>	<b>\$5.00</b>	<b>\$7.50</b>	<b>\$8.00</b>

The Related Ref Path rate in this case is the MAPP Schedule F Redirected firm rate since the reservation has been redirected. \*\*Compared to the rates of reservation 888888.

OASIS #	Start Time	Stop Time	Hours	Capacity (MW)	Rate (\$/MWhr)	Transmission Charge (\$)
777777	03/01/2004	03/10/2004	216	50	7.00	75,600.00
777777	03/10/2004	03/15/2004	120	25	7.00	21,000.00
777777	03/15/2004	04/01/2004	408	50	7.00	142,800.00
888888	03/10/2004	03/12/2004	48	25	7.50	9,000.00
888888	03/12/2004	03/15/2004	72	0	7.50	0.00
999999	03/12/2004	03/15/2004	72	25	8.00	14,400.00
<b>Total Charge</b>						<b>\$262,800.00</b>

Transmission customers may estimate redirect charges by accessing the MAPP Transmission Billing System (MTBS) rate calculator. This rate calculator allows customers to estimate redirect charges on existing firm reservations or on proposed (“what if”) firm reservations. The rate calculator is available at <https://mapp.mcgware.com/> under MAPP Services then Online Calculator.

### 2.16.4 MAPP Schedule F Monthly Billing Procedure

MAPP Schedule F transmission service charges are calculated and billed monthly. Pre-bills are posted to the on-line billing site and are viewable so Transmission Customers can review their bills and question any charges they may be receiving. If a discrepancy is found in the pre-bills it can be corrected during the current billing cycle by contacting the Transaction Coordinator. The pre-bills are posted on the 3rd of the month or following business day if the 3rd is a holiday or weekend. Final bills are posted to the online billing site and a broadcast fax summary is sent out to all the Transmission Customers and Transmission Owners on or before the 10th of the month. Once the final bills are completed they can no longer be altered and any corrections must be made in the next billing cycle. The actual transfer of funds takes place on the 20th of the month or next business day if the 20th is a holiday or weekend.

<https://mapp.mcgware.com/> then Member Login

### 2.16.5 Billing and Payment

Within a reasonable time after the first day of each month, the Contractor shall submit an invoice to the Transmission Customer for the charges for all services furnished under the Tariff during the preceding month. Charges to a Transmission Customer for the month shall be netted against revenue for each RTC Member for all transactions, which occurred. The Transmission Customer shall pay the invoice in U.S. funds within twenty (20) days of receipt, unless the Regional Transmission Committee approves a different procedure. All payments shall be made in immediately available funds payable to the Contractor, or by wire transfer to a bank named by

the Contractor. The Contractor shall pay the Transmission Providers amounts due under this Tariff monthly on or about the due date for payment of invoices by the Transmission Customers.

### **2.16.6 Curtailments on the MAPP Transmission System**

MAPP Schedule F Hourly Non-firm service will be assessed the demand charge except in the event that NERC TLR is called on a MAPP Transmission System facility. In the event that Schedule F Hourly Non-firm service is curtailed by NERC TLR on a MAPP Transmission System facility, the demand charge is based on actual energy profile in the NERC E-tag, from the hour the in which the TLR was initiated, until the hour which all schedules where restored.

### **2.16.7 Miles City DC Tie Operating Limits**

MAPP Schedule F Hourly Non-firm service will be assessed the demand charge except in the event that the Transmission Customer's schedule across the Miles City DC tie is reduced because their schedule cannot be fully utilized. The demand charge is then based on the actual energy profile in the NERC E-tag, from the hour in which the schedule was reduced, until the hour, which the schedule was restored.

## **3 MAPP Regional Practices for Member Tariff OATT Service**

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### **3.1 Requests for Service on a Member Tariff OASIS**

The MAPP Transmission Provider must validate the transmission service requests (TSR) submitted on its OASIS for eligibility and timing requirements under their tariff. A member tariff transmission service request is considered a Completed Application when it passes validation.

If a request does not pass validation, then the MAPP Request Evaluation process will not evaluate the request, and the Transmission Customer must submit another transmission service request.

**The Contractor does not change the OASIS status of a Member Tariff transmission service request.**

The Member Tariff transmission request will be evaluated using the MAPP Regional Request Evaluation Process described in Appendix F. The Transmission Provider administers approval of the member tariff service request based on both the terms and conditions of their OATT, and the results of the MAPP Request Evaluation Process or system impact study.

### 3.2 Required MAPP Member Tariff OATT TSR Validation Requirements

All TSRs submitted on a MAPP Member OASIS page shall pass the following validations before the MAPP Regional Request Evaluation Process will evaluate them. If a TSR does not pass one of the following validations, then the TSR shall automatically be set to a status of INVALID.

VALIDATION	Secondary Non-Firm Point-to-Point	Non-Firm Point-to-Point	Firm Point-to-Point	Non-Designated Network	Network
POR/POD	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED
Source/Sink	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED
POR/Source & POD/Sink	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED

The MAPP Regional Request Evaluation process only evaluates valid transmission service requests. The transmission service request must pass all enabled validations in order for the transmission service request to be evaluated.

### 3.3 Contractor Directed Annulment of a Member Tariff Reservation

In the event that a Member Tariff transmission service request reaches CONFIRMED status and subsequently it is determined by the MAPP Transaction Coordinator that errors made by the Transmission Customer results in significant violation of the MAPP Policies and Procedures, the MAPP Transaction Coordinator may direct the Transmission Provider to annul such service and advise the Customer of such annulment and the justification within 24 hours of the confirmation.

In the event that a Member Tariff Transmission Service request reaches CONFIRMED status and subsequently it is determined by the MAPP Transaction Coordinator that the service should not have been placed in the ACCEPTED or COUNTEROFFER status due to errors made by Contractor, its agents, or other transmission providers (MISO, PJM, SPP, etc.) and in, the sole discretion of the MAPP Transaction Coordinator, such error will impact the reliability of the regional transmission system, the MAPP Transaction Coordinator may direct the Transmission Provider to annul such service and shall advise the Customer of such annulment and the justification with 24 hours of confirmation.

*The Transmission Customer, Transmission Provider, or Contractor may request that the MAPP Transmission Schedules, Compensation, and Compliance Subcommittee (TSCSC) of the Regional Transmission Committee review any annulment initiated by the MAPP Transaction Coordinator.*

### 3.4 Pre-Emption

The MAPP Transmission Providers shall take action in order to avoid the double counting of impacts in the MAPP Regional Request Evaluation process, such as annulling the competing request if the contender matches the request, and/or displacing the contending request.

One MAPP Member Tariff Provider's OATT service does not pre-empt another MAPP Member Tariff Provider's OATT service. Pre-emption only occurs under the same tariff.

### **3.5 Partial Service**

The MAPP Request Evaluation Process will identify partial service based upon AFC for firm and non-firm transmission service requests that are limited by a MAPP and Reciprocally Coordinated flowgate(s).

The MAPP Transaction Coordinator will manually determine if partial service can be granted for ASTFC.

If it is determined that adequate transmission capacity on MAPP and Reciprocally Coordinated flowgate(s) does not exist to satisfy the full amount of a request for non-firm or firm transmission service, partial service may be offered, if available. Partial period service may be offered as long as the service available meets the minimum term requirements of the transmission service type requested.

When partial service is offered the MAPP Transmission Provider shall set the status of the request to COUNTEROFFER and adjust the capacity granted profile on OASIS.

**It is important that the Transmission Customer check the Capacity Granted field of transmission service request in the status of COUNTEROFFER before confirming the request to determine if the request was approved for the full amount or partial service.**

### **3.6 Mitigation for Firm Member Tariff Service**

#### **3.6.1 Scope**

The MAPP Member Tariff flowgate redispatch criteria or methodology shall apply to all flowgates recognized by the MAPP Regional Request Evaluation.

The Contractor has the authority to approve or deny Flowgate Redispatch (FRD) for MAPP Member transmission service that ends less than one year from the queue date of the Transmission Service Request (TSR). All other requests for FRD must be reviewed and approved by the MAPP Transmission Operating Subcommittee (TOS) and MAPP Transmission Schedules, Compensation, and Compliance Subcommittee (TSCSC). The Contractor will coordinate with the MAPP Transmission Provider when granting conditional firm service. The Contractor will process FRD requests only during business days.

For FRD greater than 1 year in duration the Transmission Customer must adhere to the timing requirements of the applicable tariffs. Upon such notification, the MAPP Transmission Provider will set the status of the TSR to Study on OASIS in order to ensure that sufficient AFC is

withheld from the market to accommodate the impacts of this TSR while the FRD is being evaluated.

### **3.6.2 Coordination of FRD for non-MAPP Schedule F Transmission Provider Owned Flowgates**

Information regarding all FRD approvals by the Contractor will be made available to the impacted Transmission Providers.

### **3.6.3 Methodology**

Flowgate Redispatch (FRD) is a redispatch scheme whether it is a bilateral transaction between a Transmission Customer and Generator(s) or redispatch of existing Designated Network Resources (DNR), which “creates” Available Flowgate Capability (AFC) on a specific flowgate where insufficient AFC exists by providing a counter-flow across the flowgate(s) greater than or equal to the amount of firm AFC required to accommodate the impacts of the TSR.

### **3.6.4 Criteria**

The criterion below is used to determine whether FRD is available. A firm TSR approved contingent on an FRD arrangement for a specific flowgate(s) is referred to as “Conditional Firm” on that specific flowgate(s).

#### **3.6.4.1 Conditional Firm Service Limit**

The sum of all “Conditional Firm” transmission service impacts granted across a specific flowgate plus all firm transmission service impacts queued prior to the conditional firm service request are included in the firm AFC calculation, which will not be allowed to exceed the Security Operating Limit (SOL) of the flowgate. The reasoning is, if the sum of all firm transmission service impacts and all “Conditional Firm” impacts exceeds the SOL of the flowgate, the FRD would potentially have to be implemented before the transaction utilizing the “Conditional Firm” reservation was implemented.

#### **3.6.4.2 Flowgate Redispatch Amount Required**

The Transmission Customer shall mitigate the TSR impacts on the constrained flowgate(s) to 0 MW. Which means the combination of the TSR impacts and the FRD impacts shall have a maximum of 0% distribution factor.

#### **3.6.4.3 Flowgate Redispatch on Simultaneously Constrained Flowgates**

The Transmission Customer shall mitigate the TSR impacts on each constrained flowgate in a manner that does not increase flow on any other simultaneously constrained flowgate.

#### **3.6.4.4 Term of the Flowgate Redispatch**

The established FRD obligation when the TSR was accepted and confirmed shall remain in effect for the term of the transmission service unless it is redirected as described in Section 3.6.4.4, displaced, superseded, or annulled.

FRD obligation is required when the TSR significantly impacts (the distribution factor is greater than or equal to the flowgate threshold) the flowgate and the AFC on the flowgate at that time is

less than or equal to 0. The Transmission Customer must mitigate for the minimum increment of their transmission service, except for yearly transmission service where monthly increment is available. A TSR may not be segmented into time blocks that do not meet the minimum increment of the service type, i.e. when the entire TSR is not subject to FRD for its full term the duration of the FRD must be for a minimum of one increment and the unmitigated time blocks of the TSR must be a minimum of one increment.

For example, if a monthly TSR of duration two months has an FRD obligation for the last 16 days of service, the Transmission Customer is obligated to mitigate for the entire second month. If the FRD obligation is for days 25 through 40 the Transmission Customer is obligated to mitigate for both months, or resubmit for weekly service for the first two weeks, one month of monthly service during the period of negative AFC values and weekly service for the remainder.

#### **3.6.4.5 Redirecting Firm Transmission Service with FRD**

The flowgate impacts of the firm redirect request will determine if FRD is required to grant “Conditional Firm” transmission service. This may result in a reduction or increased redispatch obligation. As with any redirect request, the MW impact on a constrained flowgate(s) shall be ignored as long as the redirect impacts are equal to or less than the MW impacts of the redirected firm reservation.

#### **3.6.4.6 Long-term Conditional Firm Transmission Service**

The Transmission Customer must work with the Transmission Provider for Long-term FRDs (TSR with a term equal to 1 year or longer). Once the redispatch scheme is beyond its initial FRD approval it will to be reviewed by the MAPP subcommittees again to renew the mitigation scheme.

When a MAPP Member Tariff long-term “Conditional Firm” reservation with FRD has been accepted and confirmed, the Transmission Customer will have the following options regarding the FRD:

1. The Transmission Customer can elect to have the FRD continue as originally required for the duration of the TSR. This would include single year and multi-year requests. The Transmission Customer can also elect to have the original FRD requirements remain in place for the renewal TSR, assuming that the Transmission Provider has not placed any additional conditions on the rollover rights other than the original FRD obligation. Since a rollover TSR is considered an extension of the original TSR and the rights granted at the original queue time, the Transmission Customer has the right to have its FRD obligation based upon its initial queue date with each subsequent renewal.
2. The Transmission Customer may choose to have the FRD requirement updated on an annual basis (if the TSR is multi-year) or at the time of renewal. The impacts and ATC values at the time of the original TSR will be superseded by the impacts and ATC values at the time the FRD is requested to be updated. Although a new OASIS TSR is not being submitted, the FRD requirements will be determined based on the system requirements and ATC values at the time the FRD update is being requested. The Transmission Customer will be responsible for any costs associated with a new system impact study if it is needed.

### **3.6.4.7 Pre-emption of Long -Term Conditional Firm Redispatch**

A multi-year long-term firm TSR that competes with a long-term “Conditional Firm” renewal TSR with FRD will not assume the FRD obligations of the renewal TSR. The competing TSR will only be held to its own conditions, if any.

### **3.6.5 Process for Short-term FRD**

Once the MAPP Regional Request Evaluation Process indicates insufficient AFC to accommodate the short-term TSR the Transmission Customer must act promptly as follows.

1. For FRD’s less than 1 year in duration, the Transmission Customer shall notify the Transmission Provider and the Contractor no later than 2 business hours (6:00 a.m. to 6:00 p.m. prevailing Central time, Monday through Friday, excluding holidays) of the posting of the TSR evaluation results by the MAPP Regional Request Evaluation process via e-mail, or fax if e-mail is unavailable, that FRD is being requested. Upon such notification, the MAPP Transmission Provider will set the status of the TSR to Study on OASIS in order to ensure that sufficient AFC is withheld from the market to accommodate the impacts of this TSR while the FRD is being evaluated.

If the Transmission Customer does not notify the Transmission Provider and the Contractor within 2 hours, FRD shall not be available for that transmission service request.

2. The Transmission Customer will submit, within 1 business day of the TSR being set to study by the Transmission Provider, via e-mail, a preliminary **MAPP Schedule F FRD Request Form** to the Contractor requesting to use the MAPP Schedule F FRD process. The Transmission Customer shall contact the Contractor to verify the receipt of the e-mail. The preliminary **MAPP Schedule F FRD Request Form** must include the Transmission Customers contact information and the MAPP Member firm TSR number requiring FRD.

It is the Transmission Customer’s responsibility to check the Request Evaluation Viewer on the MAPP OASIS to determine if their TSR was approved or rejected.

3. The Contractor will respond, via e-mail, with the time period(s) and relief quantity(s) required for each flowgate in order to accept a “Conditional Firm” MAPP Member TSR. If the TSR is rejected on any flowgate that already has a combination of firm service queued prior to the conditional firm request and “Conditional Firm” impacts exceeding the flowgate SOL, the Contractor will inform the Transmission Customer of that fact, and coordinate with the Transmission Provider to set the status of the TSR to REFUSED.

*The Contractor must receive all the required documentation described below no later than 15 days from the time of refusal and no less than 2 business days prior to commencement of service. If any of these time limits is not met, the TSR will be Refused, and the Transmission Customer must submit a new TSR, with a new queued time, if they wish further consideration.*

4. Once the Transmission Customer determines a viable FRD solution for a constrained flowgate(s) then the Transmission Customer completes the MAPP FRD Request Form and e-mails it back to the Contractor with supporting information. **The Transmission Customer must include the applicable energy contracts and transmissions service for redispatch between the generators.** It is the Transmission Customer's responsibility to confirm that the Contractor received this information.
5. The Contractor reviews all the submitted information, determines whether the FRD will create the necessary counter-flow to mitigate the constrained flowgate(s). If the FRD solution is valid, then the Contractor will inform the Transmission Provider that the FRD is valid. The Transmission Provider will inform the Transmission Customer that the "Conditional Firm" MAPP Member TSR has been ACCEPTED.
6. The Contractor will inform the Midwest ISO West (MISO) Reliability Authority, MAPP TOS and TSCSC that a "Conditional Firm" MAPP Member TSR in combination with a FRD transaction has been approved and confirmed.

If denied, the Contractor will coordinate with the Transmission Provider to refuse the "Conditional Firm" TSR and provide reasons for denial.

**The MAPP Regional Transmission Committee, its Sub-committees, the Transmission Provider, and the Contractor reserve the right to reject the request for the situations that it believes the "Conditional Firm" reservations would not be completely mitigated by the FRD solution – even if the solution comes from one of the MAPP tools.**

### **3.6.6 FRD Tools**

The Transmission Customer shall use the MAPP Scenario Analyzer for the determination of a valid mitigation scheme. Other tools commonly available may be used to provide additional information or when MAPP Scenario Analyzer granularity is not sufficient to determine the impact of an FRD on the MAPP flowgate. The Contractor may require the use of the MAPP Scenario Analyzer prior to acceptance of an FRD.

### **3.6.7 Implementation**

FRD shall be in place when a NERC Transmission Line Relief (TLR) level 4 or higher is issued on the "Conditional" flowgate. The Midwest ISO West (MISO) Reliability Authority will request the Transmission Customer to implement the FRD transaction. If the Transmission Customer does not implement the FRD then the "Conditional Firm" TSR will be considered secondary non-firm.

If the FRD requires re-dispatching DNRs, the Transmission Customer shall provide data provide before and after the initial decrement and at the top of each hour mitigation is required showing the output for these DNRs to the MISO Reliability Coordinator. The decrementing generator

shall be limited to a maximum output not to exceed its accredited value minus the amount decremented as required by the FRD.

## **3.7 Changes in MAPP Member Tariff Service Specifications**

### **3.7.1 Resale of MAPP Member Tariff Transmission Service**

A MAPP Member Tariff Resale transmission service request is not subject to the MAPP Regional Request Evaluation process. The parent request must be confirmed and have sufficient capacity granted to be resold.

### **3.7.2 Redirect of Firm Point-to-Point Service on a Non-firm Basis**

All transmission service requests for Secondary Non-firm transmission service must be submitted on the applicable MAPP Member Tariff OASIS page, and is subject to the results of the MAPP Regional Request Evaluation process.

### **3.7.3 Redirect of Point-to-Point Firm Service on a Firm Basis**

All transmission service requests for firm redirect transmission service must be submitted on the applicable MAPP Member Tariff OASIS page with a request type of REDIRECT, and is subject to the results of the MAPP Regional Request Evaluation process.

### **3.7.4 Non-designated Network Service**

All requests for Non-designated Network transmission service must be submitted on the applicable MAPP Member Tariff OASIS page, and is subject to the results of the MAPP Regional Request Evaluation process.

### **3.7.5 Extensions for Commencement of Service**

A Transmission Customer may request to defer the start of service using an OASIS request type of Deferral in accordance with the applicable MAPP Member OATT. A deferral transmission request is treated as a new request and may be subject to the MAPP Regional Request Evaluation process.

On approval of the request to defer the start of service, the parent reservation of the deferred service capacity granted maybe subject to “recall” by the Transmission Provider.

### **3.7.6 Rollover Rights**

Transmission Customers shall renew their long-term firm transmission service no less than 60 days prior to the date an existing long-term contract ends or subject to the terms of the MAPP Transmission Provider’s Tariff.

### **3.7.6.1 Transmission Provider Administration of Rollover Rights**

A Transmission Provider shall generate a Rollover Right request to extend the term of a confirmed reservation that has rollover rights. The Rollover Right request will be used in the calculation of AFC/ASTFC/ATC values.

The Transmission Provider has the obligation to either adjust or remove the Rollover Right request if the Transmission Customer submits a transmission service request with a request type of RENEWAL on the MAPP Tariff Provider's OASIS.

Rollover Right requests begin with an "R" and then the OASIS number that has un-exercised rollover rights, for example, R9999999. Rollover Right requests are only visible through the Initialization Impact viewer on the OASIS.

### **3.7.6.2 Transmission Provider Obligation to Report Rollover Rights**

The MAPP Transmission Provider shall report to the Contractor on the 1<sup>st</sup> day of each month or the following business day the list of CONFIRMED transmission reservations that have un-exercised rollover rights, transmission reservations that have been renewed, and shall provide notice within 1 business day to the Contractor when a Transmission Customer submits a request to renew service or does not exercise their rollover rights.

## **3.8 System Impact Studies for Firm Transmission Service**

The transmission service request shall be set to the status of study if the MAPP Transmission Provider offers a system impact study. The transmission service request shall be refused if the customer does not execute a system impact study agreement. The transmission service request will remain in the status of study until the system impact study is completed.

The posted AFC/ATC/ASTFC values shall determine whether sufficient capacity exists to grant transmission service within the 3 year posting horizon of the MAPP Regional Request Evaluation process where a system impact study is not available.

Additional MAPP Transmission Provider study methodologies may be required for requests that have rollover rights or are subject to the MAPP Design Review Subcommittee or in accordance with the MAPP Transmission Provider tariff

The Transmission Provider, however, has an obligation to make a reasonable determination that AFC/ATC is available beyond the 3-year evaluation horizon, on all applicable flowgates, using all data included in the MAPP Request Evaluation Process in the initial 3-year horizon.

### **3.8.1 Transmission Provider Obligation to Manage System Impact Study Impacts**

The MAPP Transmission Provider shall manage system impact study impacts in order to accommodate shorter-term service due to the inclusion of study status requests.

### **3.9 Tagging MAPP Member Tariff Transmission Service**

Each MAPP Transmission Provider approval entity on an E-tag shall validate that the E-tag has a complete tariff path. The MAPP Transmission Provider shall validate that an OASIS request is listed for each MAPP Transmission Provider. The MAPP Tariff Provider shall review that the applicable adjacent MAPP Transmission Providers are listed in the Transmission Provider path. The Transmission Provider shall validate the E-tag GCA and LCA are comparable to the OASIS reservations source and sink. Approved Alternative Control Areas for tagging can be found in the Alternative Control Area list posted on the MAPP OASIS Information Page at: <http://toinfo.oasis.mapp.org/oasisinfo/info.htm>.

## **4 MAPP Generation Reserve Sharing Pool Schedule Administration**

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### **4.1 System Emergencies**

In the event of a system emergency in the MAPP generation reserve-sharing pool, the Contractor will submit a transmission service request resulting from emergencies that use the MAPP EM procedure. Hourly Non-Firm (HNF) under Schedule F is used for Emergency (EM) Energy (Schedule C) delivery. The Transmission Customer submits subsequent transmission service requests for Scheduled Outage (SO) Energy (Schedule C1). The deadlines for reservations shall not apply for up to 48 hours of service when purchased immediately following a declared system emergency.

### **4.2 Request Transmission Service for Accreditation**

All transmission service arrangements for accredited transactions must be made through the OASIS, and such transactions must have an assignment reference number.

The minimum lead time for monthly firm service under Schedule F does not apply when purchased to avoid a reserve capacity deficiency or for Reserve Capacity Deficiency Service (Schedule B) as discussed in Section 17.1 of MAPP Restated Agreement, Exhibit C, Schedule F: Open Access Transmission Tariff.

The MAPP Transaction Coordinator must be notified by email or fax when the Transmission Customer needs to have the timing requirements waived. The correspondence must state that the transmission request is being submitted to avoid a reserve capacity deficiency during the current season.

If sufficient transfer capability is not available, however, the request will be REFUSED.

## 4.3 Schedule D: Operating Reserve Service

This procedure is from the MAPP Reliability Handbook Section 6.3.2.1.1 and Appendix I: Procedure For Approving MAPP Service Schedule D Transactions.

### Service Schedule D Submittal Process

1. The MAPP Generation Reserve Sharing Pool member requesting contingency reserves to be carried in another MAPP GRSP member's control area is responsible for submitting the Service Schedule D Request Form, and for gaining the approval of the Service Schedule D transaction. To begin the evaluation process, a MAPP Service Schedule D Request Form must be filled out and submitted to the MAPP Transaction Coordinator via the [tcrd@midwestiso.org](mailto:tcrd@midwestiso.org) e-mail address. The Service Schedule D form must be submitted at least seven working days prior to the transaction start date. Upon receipt of the form, the MAPP Transaction Coordinator will send verification of receipt to the requesting entity. In addition, the MAPP Transaction Coordinator will notify the MAPP GRSP Secretary regarding modification of emergency replacement and reserve requirement applications via the MCN.
2. The MAPP Transaction Coordinator will evaluate the transaction and notify (via e-mail) the requesting party of the results. If the transaction does not have any impact with greater than 5% PTDF or 3% OTDF in the impacting direction of any reciprocally coordinated flowgate between MAPP, MISO, and Manitoba Hydro, it will be conditionally approved. If the transaction is conditionally approved, the control areas directly associated with the transaction will also be notified. The control area "contact" person identified on the schedule D form will be notified. This communication will take place within at least four days from the time the initial request was made.

All parties must acknowledge receipt of the Service Schedule D request (via e-mail) immediately. If two hours have elapsed, and all entities have not acknowledged receipt, the MAPP Transaction Coordinator will contact each entity identified on the schedule D form, by phone.

3. All parties must notify the MAPP Transaction Coordinator of their intentions with regard to approving or rejecting the Service Schedule D transaction. This must take place within twenty-four hours of notification of conditional approval by the MAPP Transaction Coordinator.
4. If any party rejects a Service Schedule D transaction after it has been conditionally approved by the MAPP Transaction Coordinator, the party doing so must state their reasons on the form (comments section) and communicate back to the MAPP Transaction Coordinator. If the transaction is rejected, the MAPP Transaction Coordinator will notify all other parties within twenty-four hours of being notified.

Note: It is unlikely this would happen. The two entities associated with the transaction, are the only parties who have to give approval. No other transmission providers need to be involved because if the transaction impacts any flowgate by greater than 5% PTDF or 3% OTDF in the impacting direction of any MAPP defined constrained interface, the transaction would be denied. The Service Schedule D evaluation process verifies the transaction does not place a burden on another MAPP control area.

5. If all parties have approved the transaction, they must indicate so on the form and communicate back to the MAPP Transaction Coordinator within twenty-four hours of notification of conditional approval by the MAPP Transaction Coordinator.
6. Once all parties have approved the Service Schedule D transaction request, the MAPP Transaction Coordinator will notify all parties and send the final Service Schedule D transaction form to the requesting entity and to the Midwest ISO Reliability Coordinator and Midwest ISO Scheduling and Tariff Administration for implementation. All parties must acknowledge receipt of the final Service Schedule D transaction within twenty-four hours.

## 5 Scenario Analyzer

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To a Transmission Customer viewing AFC values for flowgates, ATC values for contract paths, or ASTFC values for Reciprocally Coordinated Flowgates, it may not be obvious what the limiting interface might be for a specific transmission request. Because the MAPP Regional Request Evaluation process is using a flow-based calculation and request evaluation methodology, the AFC/ASTFC on the applicable flowgates and the ATC on the applicable contract paths must be considered for every request. Even if the Transmission Customer knew the limiting interface, without an idea of the PTDF or OTDF for the request on that interface, the viability of a transmission request may not be obvious without actually submitting the request and waiting for the results.

In order to resolve this dilemma, the Contractor provides a Scenario Analyzer that may be used by Transmission Customers to evaluate non-firm and firm transmission requests against flowgate AFC/ASTFC and contract path ATC without submitting a real request to OASIS. The Transmission Customer completes and submits a request form on the Scenario Analyzer that is virtually identical to that on OASIS. The response is instantaneous via the web tool. The Scenario Analyzer attempts to use the most current AFC\ATC\ASTFC values. Requests submitted through the Scenario Analyzer do not constitute real transmission requests, so Customers may analyze many scenarios without requiring intervention of the Contractor or Transmission Providers.

## 6 Energy Schedule Reporting

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These procedures are used to support the calculation of flowgate AFC and contract path ATC, Loss Repayment, Transmission Service Charge, and OASIS Schedule posting. The general Energy Schedule Reporting procedures are as follows:

The MAPP Schedule F and the MAPP Transmission Providers will utilize the energy profiles from NERC E-tags for calculation of flowgate AFC and contract path ATC, MAPP Schedule F transmission service charges, and the MAPP Loss Repayment Procedure, and the OASIS schedule posting.

In addition to these scheduling reporting policies and procedures, Transmission Customers, Transmission Providers, control areas and security coordinators follow the NERC policies and procedures on energy tagging.

The MAPP Transmission Providers are entitled to charge for certain ancillary services. Customers should make arrangements for these services prior to reserving service.

## **7 MAPP Loss Repayment Procedure (LRP)**

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The MAPP LRP accounts for energy losses or gains incurred on MAPP Transmission Owners' systems due to energy schedules within, into, out of or through the MAPP Transmission System. The MAPP LRP then assigns responsibility to each Transmission Provider's system for the payment or collection of the energy gain or loss to that Transmission Provider's system. A Transmission Provider experiencing a reduction in losses on its system pays into the loss bank. A Transmission Provider experiencing an increase in losses on its system collects from the loss bank. The net of all payments and collections is zero. This loss repayment methodology is applied to both MAPP Schedule F service and MAPP Member Open Access Transmission Tariff (OATT) service.

The LRP is discussed in Service Schedule F. Functional requirements regarding data acquisition are discussed in Appendix P of this document.

Highlighted features of the LRP:

1. Losses/Gains on the Seller (Source) system are included in the Schedule F LRP calculations.
2. Losses/Gains on the Buyer (Sink) system are not included in the LRP calculations.
3. An on- and off-peak loss responsibility percentage matrix representing each unique MAPP system footprint is calculated and posted on the MAPP OASIS Information Page.
4. Dynamic waivers included in the LRP account for individual MAPP Transmission Provider OATT usage. Transmission Providers that collect losses under their own tariffs for a reservation do not collect MAPP LRP losses.
5. Loss Matrix Adjustment File (LMAF) waivers allow for contractual arrangements regarding the use of MAPP Transmission Provider's transmission system.
6. The LRP uses NERC E-tag energy profile to determine the schedule.
7. Transmission Providers are reimbursed In-Kind for losses as determined by the LRP one week after the energy schedule.

### **7.1 For Service Under Schedule F**

The Schedule F Customer, as defined on the OASIS transmission reservation, is responsible for delivering energy losses on a real-time basis to the Source Scheduling Participant (SSP). The customer loss responsibility values, stated as percentages between points on the system, are

posted by the MAPP Center. To determine the amount of loss responsibility between two points on the system, the Schedule F Customer can multiply the MWh amount of the schedule and the posted percentage loss responsibility. The product can be positive (increases system losses) or negative (reduces system losses). The Customer and SSP must make arrangements to account for that amount of losses. If the product is negative (reduces system losses), the customer must deliver the scheduled MWh (the MWh being delivered to the Point of Delivery on the MAPP Transmission System) minus the loss impact to the SSP. If the product is positive (increases system losses), the Customer must deliver the scheduled MWh plus the loss impact to the SSP. A Transmission Customer and SSP may make other arrangements to account for LRP losses. In all cases, however, the SSP will be responsible for fulfilling the LRP schedules as determined by the Contractor.

For service under MAPP Schedule F the customer is always responsible for the losses and is required to make arrangements with the MAPP Source Scheduling Participant to account for those losses. The Source Scheduling Participant is responsible to distribute those losses one week later through the MAPP LRP schedule.

## 7.2 For Service Under a Member’s OATT

The Transmission Customer supplies losses to the Member under the Transmission Provider’s OATT. The LRP payer associated with the Source/POR or Sink/POD pays LRP losses on these energy schedules. If the Source and Sink are both MAPP members, the LRP payer associated with the Source end pays the losses. If only the Sink is a MAPP member, then the LRP payer associated with the Sink end is responsible for paying the losses. Dynamic waivers are used to exclude MAPP Transmission Provider systems from LRP when the transaction uses that Transmission Provider’s OATT.

The table below indicates the party responsible for the losses for service taken under a Member’s OATT. For service entirely within or exiting MAPP, the Source end is assigned the losses. For service entering MAPP, the Sink end is assigned the losses. For service through MAPP, no loss responsibility is assigned.

### Determination of Loss Payer for service under a Member’s OATT

Transaction	Source	Sink	Loss Payer
Within MAPP	MAPP	MAPP	Source
Out of MAPP	MAPP	Non-MAPP	Source
Into MAPP	Non-MAPP	MAPP	Sink
Through MAPP	Non-MAPP	Non-MAPP	None assigned

## **7.3 Responsibilities of the Source Scheduling Participant**

The SSP is responsible for collecting losses delivered to it from the Schedule F Customer and arranging with the appropriate Control Area to supply the real-time losses associated with those schedules for which it is the SSP.

The SSP repays Schedule F losses one week, to the day, after the schedule. Each day by 11:00 a. m. the Contractor produces and distributes a loss repayment schedule for the next day to the SSPs/payers. Each SSP/payer in turn arranges with the appropriate Control Areas to implement these LRP schedules.

Each SSP/payer can obtain summaries and other information via web postings. The information on the web is at <https://mapp.mcgware.com/>

## **8 ASTFC Allocation Sharing/Transfer Process**

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All firm transmission service reserved under MAPP Schedule F or a MAPP Member OATT is subject to the Forward Coordination Process under Attachment B to the MISO-MAPPCOR Seams Operating Agreement. Under this process, an allocation of flowgate capability between MAPP and MISO (as well as between other Reciprocal Entities such as PJM, SWPP, and TVA) is performed to determine each parties share of capability to determine each parties Available Share of Total Flowgate Capability (ASTFC). The ASTFC is evaluated similarly to an AFC evaluation.

Any transmission service request, which passes the AFC/ATC evaluation, is then subjected to an ASTFC evaluation. If a transmission service request fails the ASTFC evaluation, then additional analysis will be performed to determine if there is adequate ASTFC from another reciprocal entity to either share or transfer allocation in order to grant the transmission service.

For MAPP Schedule F, the MAPP Transaction Coordinator shall make the determination. The MAPP Transmission Providers must contact the MAPP Transaction Coordinator if transmission service requested under their OATT was denied due to the ASTFC calculation. The MAPP Transaction Coordinator shall determine if there is ASTFC available to share or transfer from MISO or other Reciprocal Entities..

Allocation sharing is a manual process, which may increase the typical response time.

Allocation sharing will be administered per Appendix B of Attachment B to the MISO-MAPPCOR Seams Operating Agreement.

# Appendix A: Timing Requirements for Transmission Service Requests and Energy Schedule Reporting

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## **Purpose**

The functional success of the OASIS relies on clear and precise timing requirements for all activities involved. The timing requirements specified in the attached table result from the various references as interpreted by the MAPP committees and subcommittees. The purpose of this is to accompany the table with specific references to the MAPP Restated Agreement, Exhibit C, and Schedule F: Open Access Transmission Tariff.

The timing requirements identified in the attached table apply for all cases except in circumstances discussed in the specific comments.

## **Transmission Service Type**

The type of service desired determines the timing requirements of the request/approval process.

### Column 1 - Transmission Service Type

Schedule F provides three classifications of service: Firm Transmission Service (FCTS), Reserved Non-Firm Transmission Service (RNF), and Hourly Non-Firm Transmission Service (HNF). In addition, Firm Transmission Service may be redirected on a non-firm basis (HNFS).

### Column 2 - Term

Hourly refers to one hour starting at the top of the hour (00:00) up to daily. Daily refers to one calendar day up to weekly. Weekly refers to any seven consecutive calendar days up to monthly. Monthly refers to a calendar month or any thirty consecutive days up to 6 months for Non-Firm and 12 months for Firm.

### Column 3 - TLR Priority

The TLR priority is determined by the service type and term identified in columns 1 and 2. Firm service has priority over non-firm service. All firm transmission service has the same curtailment priority, whereas longer term non-firm service has priority over shorter term non-firm service as described in FERC Order 888 Attachment D Pro Forma Tariff.

## **Customer Requests Transmission Service**

### Column 4 - Transmission Requests No Later Than

The requirement in column 4 does not apply to Firm Transmission Service when purchased to avoid a reserve capacity deficiency during the current MAPP season or other regional reliability council season.

The deadlines for reservations shall not apply for up to 48 hours of service when purchased immediately following a declared system emergency.

Column 5 - Transmission Requests No Earlier Than

**MAPP Processes Transmission Request**

The Contractor receives the request, determines if transmission capacity is available, and provides the Customer with feedback about the status of the request.

Column 6 - Response to Application

The Restated Agreement is interpreted to mean that all requests get a response within 24 hours or the time to determine capacity availability (column 7) whichever is less.

Column 7 - Determine Capacity Available

Column 8 - System Impact Study

The study should be completed within this time period after receiving an executed Study Agreement.

**Customer Confirms Purchase of Transmission Service**

If the Transmission Customer fails to CONFIRM an ACCEPTED or COUNTEROFFER request for Schedule F within the required time limit, the request is automatically RETRACTED.

Column 9 - Customer Confirmation

**Scheduling Provider Reports Energy Schedules**

Schedule reporting procedures are also discussed in the Energy Schedule Reporting section of the Policies and Procedures for Transmission Operations.

Column 10 - Energy Schedule Reporting No Later Than

See specific comments for exceptions.

Column 11 - Energy Schedule Reporting No Earlier Than

Scheduling cannot be done until transmission service is approved and confirmed.

Column 12 - Energy Schedule Reporting Changes No Later Than

Column 13 - Energy Schedule Reporting No Later Than

All energy schedules must be reported and verified for use in TSC and LRP.

### Timing Requirements for Transmission Service Requests and Energy Schedule Reporting

1	2	3	4	5	6	7	8	9	10	11	12	13
Transmission Service Type	Term	TLR Priority	Transmission Requests		Response to Application	or		Customer Confirm (6)	BTF Energy Schedule Reporting			ATF Energy Schedule Reporting No Later Than
			No Later Than	No Earlier Than		Determine Capacity Available	System Impact Study		No Later Than	No Earlier Than	Changes No Later Than	
Firm Service	1 mo-12 mo (monthly)	7	14 days prior	12 months prior	24 hr	1 wk	60 days	24 hr	1000 day prior	Customer confirm	20 min prior to hour	1600 business day after
Firm Service	1 month	7	2 days prior	12 months prior	24 hr	2 business days	60 days	24 hr	1000 day prior	Customer confirm	20 min prior to hour	1600 business day after
Firm Service	1 wk-1 mo (weekly)	7	2 days prior	60 days prior	24 hr	1 business day	60 days	24 hr	1000 day prior	Customer confirm	20 min prior to hour	1600 business day after
Firm Service (Daily, submitted more than 24 hours prior)	1 day-1 wk (daily)	7	24 hour prior	60 days prior	24 hr	1 business day	60 days	24 hr	1000 day prior	Customer confirm	20 min prior to hour	1600 business day after
Firm Service (Daily, submitted less than 24 hours prior)	1 day-1 wk (daily)	7	1000 day prior	60 days prior	24 hr	1 business day	60 days	2 hrs	1000 day prior	Customer confirm	20 min prior to hour	1600 business day after
Non designated Network	All	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	(5) 20 min prior to hour	1600 business day after
Reserved Non-Firm	1-6 mo (monthly)	5	1000 day prior	120 days prior	24 hr	1 wk	N/A	24 hr	1000 day prior	Customer confirm	(3) 20 min prior to hour	1600 business day after
Reserved Non-Firm	1 mo (monthly)	5	1000 day prior	60 days prior	24 hr	2 days	N/A	24 hr	1000 day prior	Customer confirm	(3) 20 min prior to hour	1600 business day after
Reserved Non-Firm	1 wk-1 mo (weekly)	4	1000 day prior	60 days prior	4 hr	4 hr	N/A	24 hr	1000 day prior	Customer confirm	(3) 20 min prior to hour	1600 business day after
Reserved Non-Firm	1 day-1 wk (daily)	3	1000 day prior	30 days prior	1 hr	1 hr	N/A	2 hrs	1000 day prior	Customer confirm	(3) 20 min prior to hour	1600 business day after
Reserved Non-Firm	1 day	3	1000 day prior	3 days prior	1 hr	1 hr	N/A	2 hrs	1000 day prior	Customer confirm	(3) 20 min prior to hour	1600 business day after
Hourly Non-Firm (submitted more than 1 hour prior)	hourly	2	1 hour prior	1200 day prior	30 min	30 min	N/A	30 min	20 min prior to hour	1200 day prior	N/A	1600 business day after
Hourly Non-Firm (submitted less than 1 hour prior)	hourly	2	(2) prior to hour	1 hour prior	30 min	30 min	N/A	5 min	20 min prior to hour	1200 day prior	N/A	1600 business day after
Secondary Non-Firm under Schedule F (submitted more than 1 hour prior)	hourly	1 <sup>2</sup>	1 hour prior	1200 day prior	30 min	30 min	N/A	30 min	20 min prior to hour	1200 day prior	N/A	1600 business day after
Secondary Non-Firm under Schedule F (submitted less than 1 hour prior)	hourly	1 <sup>2</sup>	(2) prior to hour	1 hour prior	30 min	30 min	N/A	5 min	20 min prior to hour	1200 day prior	N/A	1600 business day after
Secondary Point-to-Point on non firm basis	All	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	(3) 20 min prior to hour	1600 business day after

**Notes**

- (1) The requirement in column 4 does not apply to Firm Transmission Service when purchased to avoid a reserve capacity deficiency during the current MAPP season or other regional reliability council season. If the transmission request is refused, however, the transaction may not be accredited in MAPP, and specified Schedule B penalty could be applied.
- (2) When TLR is in effect, Hourly Non-Firm and Secondary Non-Firm must be requested at least 30 minutes prior to the hour.
- (3) When TLR is in effect, schedule changes using Reserved Non-Firm transmission service must be reported at least 30 minutes prior to the hour. Those schedule changes will be accommodated, if practicable.
- (4) Due to its unexpected nature, HNF for Emergency Energy Interchange Service is not subject to TLR and BTF Energy Schedules are not reported.
- (5) The deadlines for reservations shall not apply for up to 48 hours of service when purchased immediately following a declared system emergency.
- (6) Confirmation time limits are not to be interpreted to extend scheduling deadlines. The Transmission Customer shall immediately confirm a request for service that is accepted by the Transmission Provider after the scheduling deadline

## Appendix B: Glossary of Acronyms

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Acronym	Description
AFC	Available Flowgate Capability
ASTFC	Available Share of Total Flowgate Capability
ATC	Available Transfer Capability
FRD	Flowgate Redispatch
OASIS	Open Access Same-time Information System
SOA	Seams Operating Agreement
TLR	Transmission Line-loading Relief
TSR	Transmission Service Request

## Appendix C: MAPP OASIS User Registration and Validation Messages

The MAPP OASIS is accessed via the Internet using a web browser, such as Netscape or Microsoft Explorer. Access to the OASIS is limited to users who have registered with OATI and have obtained the necessary X.509 certificates.

User Registration Instructions on how to obtain access the OATi webOASIS is posted at <http://www.oatioasis.com/>. The guide describes the process of registering with OATI and the policies under which the OASIS is operated

Validation	OASIS Message	Comment
POR/POD	Invalid POR/POD	POR and/or POD is not valid for the MAPP Transmission Provider. POR and/or POD is not defined for the MAPP Regional Request Evaluation process
Source/Sink	Invalid Source/Sink	Source and/or Sink are not valid for the MAPP Transmission Provider. Source and/or Sink is not defined for the MAPP Regional Request Evaluation Process.
Source/POR and Sink/POD	Invalid Source/POR and/or Sink POD combination	Not applicable when a border point is used. The Source/POR and/or POD Sink combination must exist for the Transmission Provider.
Timing	Invalid term. Invalid	Validates

	Begin Time. Invalid End Time. Invalid Lead Time.	transmission service timing requirements.
Customer/Service		Validates whether the customer is eligible under the OATT
Redirect		Validates whether the parent reservation is confirmed, and the redirect reservation has exceeded the parent reservation's capacity granted

# **Appendix F: MAPP Regional AFC/ATC/ASTFC Calculation and Request Evaluation Process**

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Reference document: **MAPP Policies and Procedures for Transmission Operations –  
Appendix F: AFC/ATC/ASTFC Calculation and Request Evaluation Process**

# Appendix G: MAPP Fax Form

<b>MAPP FAX FORM</b>	<b>FAX Number (651)632-8494</b>
<b>Customer Information</b>	<b>Seller Information</b>
Name <input style="width: 100%;" type="text"/>	Company <input style="width: 100%;" type="text"/>
Company <input style="width: 50%;" type="text"/>	Duns <input style="width: 50%;" type="text"/>
Comments <input style="width: 100%;" type="text"/>	
Status Notification E-mail: <input style="width: 80%;" type="text"/>	
Phone Number: <input style="width: 60%;" type="text"/>	
<b>Dates (mm/dd/yyyy) and Times (hh:mm:ss)</b>	<b>Reference Numbers</b>
Start Date and Time <input style="width: 20%;" type="text"/> / <input style="width: 20%;" type="text"/> / <input style="width: 20%;" type="text"/> <input style="width: 20%;" type="text"/> : <input style="width: 20%;" type="text"/> : <input style="width: 20%;" type="text"/> <input style="width: 20%;" type="text"/>	Deal <input style="width: 100%;" type="text"/>
Stop Date and Time <input style="width: 20%;" type="text"/> / <input style="width: 20%;" type="text"/> / <input style="width: 20%;" type="text"/> <input style="width: 20%;" type="text"/> : <input style="width: 20%;" type="text"/> : <input style="width: 20%;" type="text"/> <input style="width: 20%;" type="text"/>	Request <input style="width: 100%;" type="text"/>
	Sale <input style="width: 100%;" type="text"/>
	Posting <input style="width: 100%;" type="text"/>
	Related Ref <input style="width: 100%;" type="text"/>
<b>Service Information</b>	<b>Service Type</b>
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>
Capacity <input style="width: 50%;" type="text"/>	
Bid Price <input style="width: 50%;" type="text"/>	
Preconfirmed <input type="checkbox"/>	
<b>Path and POR/POD Information</b>	
POR <input style="width: 50%;" type="text"/>	POD <input style="width: 50%;" type="text"/>
Path Name <input style="width: 100%;" type="text"/>	
Source <input style="width: 50%;" type="text"/>	Sink <input style="width: 50%;" type="text"/>



# Appendix I: Calculating the Impact of a Schedule D Transaction on the Transmission System – March 15, 2001

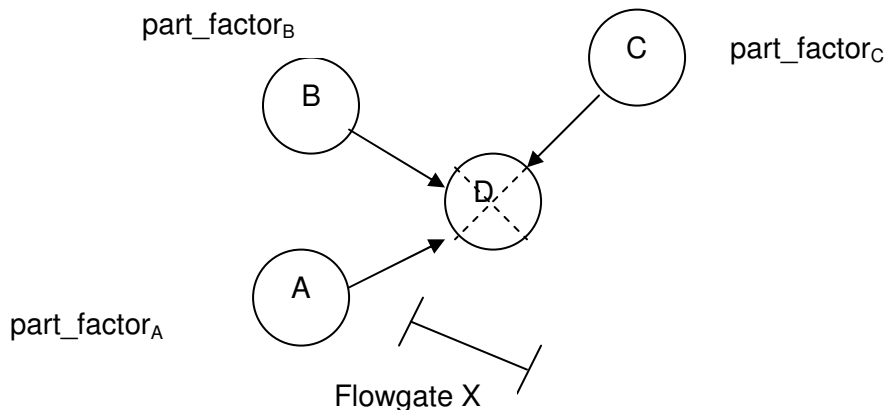
## Calculating the Impact of a Schedule D Transaction on the Transmission System

Members of the MAPP Generation Reserve Sharing Pool (GRSP) hold back generating capacity in order to assist each other in case of the sudden loss of any energy resource belonging to another MAPP GRSP member. In such an emergency event, each member contributes a predetermined amount of power to cover the energy imbalance until the member can make arrangements to cover the load that had been served by the lost resource. In order to ensure that there will be enough transmission capability to deliver these reserves in the event of an emergency, a portion of the Available Transmission Capability (ATC) is set-aside in the Transmission Reliability Margin (TRM).

Each flowgate owner determines the amount of transmission capability required to deliver contingency reserves on each flowgate by determining the emergency condition that would result in the greatest impact on the flowgate. The most severe emergency condition may be different for each flowgate, and is not necessarily the loss of the largest unit. Often the loss of a unit that is electrically close to the flowgate will result in reserve deliveries that have a greater impact than a larger unit that is farther away.

Schedule D allows members of the MAPP GRSP to transfer a portion of the reserve obligation from one member to another. In doing so, it needs to be demonstrated that the transfer of reserves does not adversely affect the transmission capability of the flowgate.

In order to determine how the impact of a Schedule D transaction should be evaluated, consider a simplified example. Let's say that generators A, B, and C are called upon to deliver reserves for the loss of generator D. Each generator contributes an amount according to a participation factor.



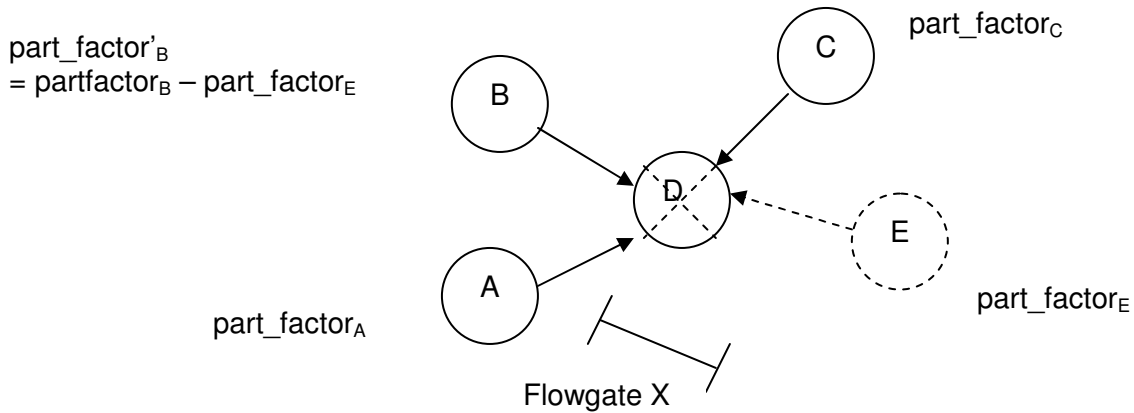
The impact on flowgate X of supplying the contingency reserves for the loss of generator D can be calculated as follows:

$$\text{Impact}_X = \begin{aligned} & \text{ptdf}_X^{A-D} * \text{part\_factor}_A * \text{MW}_D \\ & + \text{ptdf}_X^{B-D} * \text{part\_factor}_B * \text{MW}_D \\ & + \text{ptdf}_X^{C-D} * \text{part\_factor}_C * \text{MW}_D \end{aligned}$$

Where,

$\text{ptdf}_X^{A-D}$  = the power transfer distribution factor on flowgate X of energy transferred from A to D  
 $\text{part\_factor}_A$  = the participation factor of generator A of the reserves supplied for the loss of D  
 $\text{MW}_D$  = the amount of generation lost due to the outage of D

If generator E picks up a portion of the reserve obligation for generator B, then the new impact in flowgate X can be calculated as follows:



$$\text{Impact}'_X = \begin{aligned} & \text{ptdf}_X^{A-D} * \text{part\_factor}_A * \text{MW}_D \\ & + \text{ptdf}_X^{B-D} * (\text{part\_factor}_B - \text{part\_factor}_E) * \text{MW}_D \\ & + \text{ptdf}_X^{C-D} * \text{part\_factor}_C * \text{MW}_D \\ & + \text{ptdf}_X^{E-D} * \text{part\_factor}_E * \text{MW}_D \end{aligned}$$

Therefore, the incremental impact of the transfer of reserves can be calculated by taking the difference in impacts between the two scenarios:

$$\begin{aligned} \square \text{Impact}_X &= \text{Impact}'_X - \text{Impact}_X \\ &= \text{ptdf}_X^{B-D} * (\text{part\_factor}_B - \text{part\_factor}_E) * \text{MW}_D \\ &+ \text{ptdf}_X^{E-D} * \text{part\_factor}_E * \text{MW}_D \\ &\text{ptdf}_X^{B-D} * \text{part\_factor}_B * \text{MW}_D \end{aligned}$$

$$\begin{aligned}
 &= \text{ptdf}_X^{E-D} * \text{part\_factor}_E * \text{MW}_D \\
 &- \text{ptdf}_X^{B-D} * \text{part\_factor}_E * \text{MW}_D \\
 &= (\text{ptdf}_X^{E-D} - \text{ptdf}_X^{B-D}) * \text{part\_factor}_E * \text{MW}_D \\
 &= (\text{ptdf}_X^{E-D} + \text{ptdf}_X^{D-B}) * \text{part\_factor}_E * \text{MW}_D \\
 &= \text{ptdf}_X^{E-B} * \text{part\_factor}_E * \text{MW}_D \quad (\text{by superposition})
 \end{aligned}$$

***Therefore the impact of the Schedule D transaction can be evaluated by analyzing the impacts of a transaction from new source to original source – regardless of what contingency results in the worst-case impact on the flowgate. This means that anytime the transaction from the new source of reserves to the original source of reserves has an impact in the same direction as the flowgate, it would increase the TRM requirement, and therefore be denied.***

It would be very difficult, however, to find a source/sink combination that will not have an impact in the positive direction on some flowgate. Therefore, under the proposed rules, it will be very difficult to get a Schedule D transaction approved.

A couple of options could be considered to make it easier to get a Schedule D transaction approved:

One potential solution would be to allow MAPP GRSP members to make arrangements with the flowgate owner to increase the TRM on their flowgate. This, however, could raise some serious open-access comparability issues.

Another option would be to reserve (and pay for) a Schedule D transaction on the OASIS as a firm transmission reservation. Such a reservation would be subject to all the rules associated with a “normal” firm transmission request, with the addition of OPS approval for Schedule D use. (I would think that the reserve source identified on the request would have to meet certain criteria -- available in 10 minutes, etc. -- of operating reserves.) One consideration, however, is that if firm transmission service is not scheduled by 10:00 AM of the day prior to commencement of service, it is made available on the hourly market. If this is acceptable in all cases, then this option is feasible. If not, then this option would not work, since it would not be prudent to treat one kind of firm transmission service any differently than any other kind of firm service.

If the open access comparability issues raised in these two options prevent their implementation, then the proposed procedures of not allowing any schedule D transaction that has a ptdf greater than 5% on any flowgate may be the only option.

# Appendix J: Schedule D Request Form

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## MAPP SERVICE SCHEDULE D REQUEST FORM

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### Requesting Party

---

Name:

Company:

Phone:

Email:

Contact Back Up Name:

Back Up Phone:

Submittal Date/Time:

Seller:

New Source:

Buyer:

Original Source:

Commodity: MAPP Schedule D Transaction

Amount (MW):

Start Date/Time:

End Date/Time:

Request modification to EM and reserve requirement MCN applications (yes / no):

Comments:

---

### MAPP Transaction Coordinator

---

Name:

CompanyMidwest ISO

Phone: (651) 632-8508

Email: tcrd@midwestiso.org

Received Date/Time:

Conditionally Approved

Denied

Study Results: (Attached)

Comments:

---

**Seller Control Area**

---

Contact Name:  
Phone:

Company:  
Email:

Contact Back Up Name:  
Back Up Phone:

Approved     Denied (If denied, please provide explanation)

Does this schedule D transaction have an impact of an existing transmission emergency procedure?

No     Yes (If yes, please provide information.)

Comments:

---

**Buyer Control Area**

---

Contact Name:  
Phone:

Company:  
Email:

Contact Back Up Name:  
Back Up Phone:

Approved     Denied (If denied, please provide explanation)

Does this schedule D transaction have an impact of an existing transmission emergency procedure?

No     Yes (If yes, please provide information.)

Comments:

---

**MAPP Security Center**

---

Name: Midwest ISO Reliability Coordinator  
Phone: (651) 632-8490

Company: Midwest ISO  
Email: RC-SP@midwestiso.org

Received Date/Time:

# Appendix K: MAPP Regional Total and Available Transfer Capability Methodology

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Included in the MAPP POLICIES AND PROCEDURES FOR TRANSMISSION OPERATIONS: Appendix F: MAPP Regional AFC/ATC/ASTFC Calculation and Request Evaluation Process

# Appendix L: MAPP Transmission Reliability Margin Methodology

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Included in the MAPP POLICIES AND PROCEDURES FOR TRANSMISSION OPERATIONS: Appendix F: MAPP Regional AFC/ATC/ASTFC Calculation and Request Evaluation Process

# Appendix M: MAPP Capacity Benefit Margin Methodology

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Included in the MAPP POLICIES AND PROCEDURES FOR TRANSMISSION OPERATIONS: Appendix F: MAPP Regional AFC/ATC/ASTFC Calculation and Request Evaluation Process

# **Appendix N: MAPP Procedure to Review Transmission Provider ATC Component Calculations and Resulting Values for Compliance with MAPP Regional Methodologies**

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Included in the **MAPP POLICIES AND PROCEDURES FOR TRANSMISSION OPERATIONS: Appendix F: MAPP Regional AFC/ATC/ASTFC Calculation and Request Evaluation Process**

# Appendix O: MAPP Regional Procedure for Feedback on TTC/ATC Methodologies and Values

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Included in the MAPP POLICIES AND PROCEDURES FOR TRANSMISSION OPERATIONS: Appendix F: MAPP Regional AFC/ATC/ASTFC Calculation and Request Evaluation Process

# Appendix P: Transmission Loss Compensation Procedure

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## Purpose

A participant whose system is used under terms of Service Schedule F (Transmission Services and Losses), for transmission of energy by another Participant is entitled to compensation in kind for losses associated with such use. Only MAPP Participants receive loss compensation through this procedure referred to as the MAPP LRP.

## General Overview

### Weekly loss percentage matrices

On and off-peak weekly loss percentage matrices are developed using loss results from monthly no-transactions models and weekly snapshot models. Development consists of the following:

### **Averaging: Weekly averages are calculated from results of the snapshot models and the no-transactions model.**

Weekly averages = SUM (snapshot and no-transactions results) /2

### **Smoothing: The weekly loss percentage matrices implemented are calculated from the last four weekly averages.**

Loss percentages = SUM (last 4 weekly averages) /4

The date of the on-peak snapshot collection determines which monthly model is used.

The loss percentage matrices are developed and distributed by 1200 on Friday of the week the data is collected. Those matrices will be in effect for one week beginning HE 0100 on the following Monday.

### Monthly no-transactions model

The model is developed from the seasonal operating model.

The transmission system is modified:

DC ties and Phase shifters are block loaded.

IMO is removed to improve solution time and ability.

Zero impedance branches outside of MAPP are joined to improve solution time and ability.

Radial lines outside of MAPP are equivalized.

One monthly model is used for on and off-peak periods.

Load and generation levels are changed monthly.

Load changes are made by company according to their “FORECASTED MONTHLY SYSTEM DEMAND SUMMARY” as reported in the most recent LOAD AND CAPABILITY REPORT. Each company's load is set to 70% of that forecasted demand.

Company load is allocated to each control area based on the company load distribution found in the seasonal operating model.

Load is scaled by control area.

Generation is dispatched by company according to the current Generator Priority Schedules.

### **Weekly snapshot model**

The following system data is collected to develop each on and off-peak weekly snapshot model.

Actual control area interchanges.

Generation levels for units/plants 10 MW or larger.

Transmission outages.

DC and Phase Shifter schedules.

Canadian - US interchanges.

Models for off-peak periods are developed from data of 1115 Sunday.

Models for on-peak periods are developed from data of 1115 Monday. If Monday is a NERC holiday the data is collected the first day that is not a NERC holiday.

If data is missing and cannot be recovered, the snapshot model is not developed and the loss results from the previous week are used.

### **Transfer simulations and loss calculations**

Transfer points are identified seasonally and may be changed monthly.

Point-to-swing simulations are made using 10 MW blocks.

The calculated losses are set to zero for transactions with the selling transfer point the same as the buying transfer point.

Losses are allocated according to the Line Loss Responsibility file.

Predetermined loss percentages are set according to the Loss Matrix Adjustment file.

Buyer system losses are set to zero.

## **Participant Activities**

### **Daily Participant activities**

Report daily energy transactions to the administrator via the LRPTSC Application on the MCN by 1600 on the first workday after they occur.

Repay losses in real time with hourly schedules to the loss bank according to the repayment schedules distributed by the administrator.

### **Weekly Participant activities**

Report system data for the on and off-peak snapshot collections.

## **Monthly Participant activities**

Notify the administrator of data changes by 1200 on the last Monday of the previous month. All participants involved in the changes must concur. The following are examples of data that can be changed monthly.

- Transfer points
- Participant identifiers
- Line Loss Responsibility
- Loss Matrix Adjustments

## **Seasonal Participant activities**

Review, update, and respond to data requests.

- Transfer points
- Line Loss Responsibility
- Loss Matrix Adjustments
- Generator Priority Schedule

## **Administrator Activities**

### **Daily Administrator activities**

Verify daily energy transactions, contacting Participants as necessary.

Apply appropriate loss percentages to the energy schedules to calculate loss repayment responsibility.

Distribute the repayment schedule by 1100 on the last workday before repayment is made. Also distribute any appropriate weekly, monthly, and yearly loss repayment summaries.

### **Weekly Administrator activities**

Collect system data and develop on and off-peak snapshot models.

Simulate transfers on the snapshot models.

Produce and distribute the weekly loss percentage matrices by 1200 on Friday.

### **Monthly Administrator activities**

Update current data files according to Participant requests.

Create the monthly no-transactions model.

Simulate transfers on the monthly no-transactions model.

### **Seasonal Administrator activities**

Send data request to Participants.

Update data files according to responses to the data request.

Modify seasonal operating model for use in the LRP.

Calculate monthly load levels by company.

## Requesting Changes to LRP Data

Participants may want data changed at times not coinciding with the seasonal data requests from the administrator. The data can be changed for any given month if all affected Participants concur and the administrator receives appropriate notification. Participants may contact the administrator for specific requirements.

## Historical Data Storage

The LRP produces summaries of Participant loss responsibilities weekly, monthly, and annually. On and off-peak energy records are maintained separately. The administrator maintains files containing more specific data. Participants may request this information from the administrator. As the data ages, it is archived and becomes more time consuming to reproduce.

## Error Corrections

Limitations for correction of LRP errors are as follows:

For errors relating to data input, corrections to the data will be included in the following week's loss calculation. Note: It will take four weeks for the correction to be fully realized in the weekly loss percentages.

For software errors, losses will be re-calculated for the previous four weeks from the time the error is identified.

## Definitions

- On-peak period -The on-peak period is from HE 0700 -2200 Monday through Saturday except during NERC holidays.
  - Off-peak period -The off-peak period is from HE 2300 -0600 Monday through Saturday, all day Sunday, and all day NERC holidays.
  - Exempt transactions -Transactions in the following categories are exempt from the MAPP LRP:
    - LRP repayments
    - Displacement schedules only if identified as exempt.
    - Emergency schedules
    - Regulation schedules only if identified as exempt.
    - WAPA firm allocations (includes peaking schedules) only if identified as exempt.
    - Schedules to load from joint owned units only if identified as exempt.
    - Schedules to load for life of unit participation (must have equity ownership and "sharing-of-unit cost" for the remaining life of a specific unit.) only if identified as exempt.
- Note: An exempt status does not supersede reporting the transaction. Participants report transactions according to LRPTSC instructions.

## **Seasonal data request**

The administrator distributes a data request to Participants for the upcoming season. The request is for control area swing machines, transfer points, Line Loss Responsibility, Loss Matrix Adjustments, and generation priority scheduling.

## **Transfer points**

Each Participant has identifiers to represent line loss responsibility and transfer points for selling and buying energy. Each identifier can have up to three sets of transfer points (sell/buy/wheel for both on and off- peak periods). One set of transfer points is in effect at any given time and can be changed monthly. Participants designate their transfer points as part of the seasonal data request.

Selling transfer points represent the typical generating units from which sales would be made. Buying transfer points represent the typical generating units that would be reduced because of purchases. A transfer point consists of up to five units.

## **Line Loss Responsibility**

The Line Loss Responsibility (LLR) file contains a list of all MAPP transmission facilities in the model. Participants having loss responsibility and their percentage share of responsibility are associated with each facility. Facilities operated below 115kV and all non-MAPP responsibility are designated with identifier 'OTHR'. The LLR file is part of the seasonal data request.

## **Loss Matrix Adjustment**

The Loss Matrix Adjustment file (LMAF) identifies Participants having prior loss agreements. The file shows the affected Participants and the predetermined loss percentages for each transaction. The LMAF is part of the seasonal data request.

## **Generator Priority Scheduling**

The Generator Priority Schedules contain lists of Participants' generating resources (10 MW and larger) and the order in which the generators should be brought on-line to serve their load. The schedules include the minimum and maximum generation levels of each unit the Participants have available to use to serve their load.

## **Transmission Outage Reporting**

The Transmission Outage Reporting file contains a list of transmission facility names (115 kV and above) that are linked to branches in the current seasonal operating model. The facility names are used to identify transmission outages in the weekly snapshot models.