

9.3 Coordinated System Planning.

The primary purpose of coordinated transmission planning and development of the Coordinated System Plan is to ensure that coordinated analyses are performed to identify expansions or enhancements to transmission system capability needed to maintain reliability, improve operational performance, enhance the competitiveness of electricity markets, or promote public policy. The Parties will conduct such coordinated planning as set forth in this Section 9.3 and subsections thereof.

9.3.1 Single Party Planning.

Each Party shall engage in such transmission planning activities, including expansion plans, system impact studies, and generator interconnection studies, as are necessary to fulfill its obligations under its OATT or as it otherwise shall deem appropriate. Such planning shall conform to applicable reliability requirements of the Party, NERC, applicable regional reliability councils, or any successor organizations, and any and all applicable requirements of federal, state, or provincial laws or regulatory authorities. Each Party agrees to prepare a regional transmission planning report that documents its annual regional plan prepared according to the procedures, methodologies, and business rules documented by the region. The Parties further agree to share, on an ongoing basis, information that arises in the performance of such single party planning activities as is necessary or appropriate for effective coordination between the Parties, including, in addition to the information sharing requirements of Sections 9.2 and 9.3, information on requests received from generation resources that plan on permanently retiring or suspending operation consistent with the timelines of each Party's OATT for such studies, and the identification of proposed transmission system enhancements that may affect the Parties' respective systems.

9.3.2 Coordinated System Plan.

The Coordinated System Plan is the result of the coordination of the regional planning that is conducted under this Agreement. The Parties will coordinate any studies required to assure the reliable, efficient, and effective operation of the transmission system. Results of such coordinated studies will be included in the Coordinated System Plan as further described in Section 9.3.6. The Coordinated System Plan shall also include the results of ongoing analyses of requests for interconnection and ongoing analyses of requests for long-term firm transmission service. The Parties shall coordinate in the analyses of these ongoing service requests in accordance with Sections 9.3.3 and 9.3.4. The Coordinated System Plan shall be an integral part of the expansion plans of each Party. To the extent that the JRPC agrees to combine with or participate in similarly established joint planning committees amongst multiple planning entities engaging in coordinated planning studies as provided for under Section 9.1.1.2, the coordinated planning analyses of this Protocol may be integrated into any joint coordinated planning analyses engaged in by the multiple parties, provided that the requirements of the Coordinated System Plan are integrated into the scope of such joint coordinated planning analyses.

9.3.3 Analysis of Interconnection Requests.

In accordance with the procedures under which the Parties provide interconnection service, each Party will coordinate with the other the conduct of any studies required in determining the impact of a request for generator or merchant transmission interconnection. Results of such coordinated studies will be included in the impacts reported to the interconnection customers as appropriate. The process for ~~the~~ coordination of interconnection studies and Network Upgrades ~~shall be documented in the respective Party's business practices manuals that are publicly available on each Party's website. Both Parties' manual language shall be coordinated so as to ensure the communication of requirements is consistent and includes the following~~ is detailed below:

- (a) Consistent with the data exchange provisions of the manuals, the Parties will exchange current power flow modeling data annually and as necessary for the study and coordination of interconnection requests. This will include the associated update of the other Party's relevant queue requests, contingency elements, monitoring elements data, and other data as may be required.
- (b) ~~The coordination of the study results, pursuant to each Party's business practices manuals, coordinated interconnection studies~~ will determine the potential impact on the direct connect system and on the impacted Party. The direct connect system will be responsible for communicating coordinated interconnection study results to the direct connect interconnection customer.
- (c) ~~After reviewing the results, if the potentially impacted Party determines that its system may be materially impacted by the interconnection, that Party will contact the direct connect system and request participation in the applicable interconnection studies.~~ The Parties will coordinate and mutually agree on the nature of studies to be performed to test the impacts of the interconnection on the potentially impacted Party.
 - (i) The transmission reinforcement and the study criteria used in the coordinated interconnection studies will conform to and incorporate provisions as outlined in the PJM and MISO Business Practices Manuals and the Parties' respective Tariffs.
 - (ii) The PJM and PJM transmission owner study and reinforcement criteria will apply to studies performed to determine impacts on the PJM transmission system when PJM evaluates the impact of MISO generation on PJM transmission facilities.
 - (iii) The MISO and MISO transmission owner study and reinforcement criteria will apply to studies performed to determine impacts on the MISO transmission system when MISO evaluates the impact of PJM generation on MISO transmission facilities.

- (iv) The identification of all impacts on the Parties' transmission systems shall include a description of the required system reinforcement(s), an estimated planning level cost and construction schedule estimates of the system reinforcements.
- (v) If the Parties cannot mutually agree on the nature of the studies to be performed they can resolve the differences through the dispute resolution procedures documented in Article XIV of this Agreement. The Parties will strive to minimize the costs associated with the coordinated study process.
- (d) During the course of its interconnection studies, PJM shall monitor the MISO transmission system and provide to MISO the draft results of the potential impacts to the MISO transmission system. These potential impacts shall be included in the PJM System Impact Study report along with any information regarding the validity of these impacts and any transmission system reinforcements received from MISO and the MISO transmission owners. Any coordinated studies will be performed in accordance with the study scope and timeline mutually agreed to in Section 9.3.3 (e) above utilizing the responsibility options outlined in Section 9.3.3 (e) below.
- (e) Following issuance of the PJM Feasibility Study report and after the Interconnection Customer executes the PJM System Impact Study Agreement, PJM shall forward to MISO, at a minimum of twice per year (April 15 and October 15), information necessary for MISO and the MISO transmission owners to study the impact of the PJM Interconnection Request(s) on the MISO transmission system. MISO and the MISO transmission owners shall study the impact(s) of the PJM Interconnection Request(s) on the MISO transmission system and provide draft results to PJM by:

 - (i) March 1 for PJM Interconnection Request(s) provided to MISO on or before October 15 of the previous year; and
 - (ii) September 1 for PJM Interconnection Request(s) provided to MISO on or before April 15 of the same year.
- (f) During the determination of reinforcements for an Interconnection Request that are required to mitigate MISO constraint(s), PJM and MISO may identify other planned non-MISO reinforcement(s) that may alleviate such constraint(s) inside the MISO region. Under such circumstances, any PJM interconnection project relying on those reinforcement(s) shall have limited injection rights until those reinforcement(s) are placed into service. MISO shall determine the necessary injection limits associated with the PJM Interconnection Request that will be implemented in Real Time until the necessary upgrades identified through MISO's affected system analysis are in service.

- (g) During the course of MISO’s interconnection studies, MISO shall monitor the PJM transmission system and provide to PJM the draft results of the potential impacts to the PJM transmission system. Those potential impacts shall be included in the MISO System Impact Study report along with any information regarding the validity of these impacts and possible mitigation received from PJM and the PJM transmission owners.
- (h) Prior to commencing the MISO Definitive Planning Phase (“DPP”) study, MISO shall forward to PJM, at a minimum of twice per year (January 1 and July 1), information necessary for PJM and the PJM transmission owners to study the impact of the MISO Interconnection Request(s) on the PJM transmission system. For the prescribed times when MISO provides this information to PJM, January 1 and July 1, PJM and the PJM transmission owners shall study the impact of the MISO Interconnection Request(s) on the PJM transmission system and provide the draft results to MISO by:
 - (i) March 31 for requests submitted to PJM on or before January 7 of the same year; and
 - (ii) September 29 for requests submitted to PJM on or before July 7 of the same year.
- (i) During the determination of reinforcements for an Interconnection Request that are required to mitigate PJM constraint(s), PJM and MISO may identify other planned non-PJM reinforcement(s) that may alleviate a constraint(s) inside the PJM region. Under such circumstances, any MISO interconnection project relying on those reinforcement(s) shall have limited injection rights until those reinforcement(s) are placed into service. PJM shall determine the necessary injection limits associated with the MISO Interconnection Request that will be implemented in Real Time until the necessary upgrades identified through PJM’s affected system analysis are in--service.
- (j) If the coordinated interconnection study identifies constraints that require infrastructure additions on the impacted system to mitigate them, then the potentially impacted Party may perform its own analysis, in conjunction with the direct connect Party’s Interconnection Studies. The interconnection customer whose project requires mitigation of constraint(s) found on an impacted Party’s system shall enter into the appropriate Facilities Study agreement as required under the impacted Party’s OATT.
- (k) The direct connect system will collect from the interconnection customer the costs incurred by the potentially impacted Party associated with the performance of such studies and forward collected amounts to the potentially impacted Party.
- (l) If the results of the coordinated study process indicate that Network Upgrades are required in accordance with procedures, guidelines, criteria, or standards

applicable to the potentially impacted system, the direct connect system will identify the need for such Network Upgrades in the appropriate study report prepared for the interconnection customer.

- (mh) Requirements for construction of such Network Upgrades will be under the terms of the applicable OATT, agreement among owners of transmission facilities subject to the control of the potentially impacted Party and consistent with applicable federal, state or provincial regulatory policy.
- (n) The Interconnection Customer whose project requires mitigation of constraint(s) found on an impacted Party's system shall enter into the appropriate Facilities Study Agreement as required under the impacted Party's Tariff.
- (oi) In the event that Network Upgrades are required on the potentially impacted Party's system, then interconnection service will commence on a schedule mutually agreed upon among the Parties. This schedule will include milestones with respect to the Network Upgrade construction and the amount of service that can commence after each milestone.
- (pj) Each Party will maintain a separate interconnection queue. The Parties will maintain a composite listing of interconnection requests for all interconnection projects that have been identified as potentially impacting the systems of both Parties. These lists will be presented annually to the IPSAC.

9.3.4 Analysis of Long-Term Firm Transmission Service Requests.

In accordance with applicable procedures under which the Parties provide long-term firm transmission service, the Parties will coordinate the conduct of any studies required to determine the impact of a request for such service. Results of such coordinated studies will be included in the impacts reported to the transmission service customers as appropriate. The process for the coordination of studies and Network Upgrades shall be documented in the respective Party's business practices manuals that are publicly available on each Party's website. Both Parties' manual language shall be coordinated so as to ensure the communication of requirements is consistent and includes the following:

- (a) The Parties will coordinate the calculation of AFC values associated with the service, based on contingencies on the systems of each Party that may be impacted by the granting of the service.
- (b) Upon the posting to the OASIS of a request for service, the Party receiving the request will coordinate the study of the request, pursuant to each Party's business practices manuals, which will determine the potential impact on each Party's system. The Party receiving the request will be responsible for communicating coordinated study results to the customer requesting such service.

- (c) If the potentially impacted Party determines that its system may be materially impacted by the service, and the nature of the service is such that a request on the potentially impacted Party's OASIS is unnecessary (i.e., the potentially impacted Party is "off the path"), then the potentially impacted Party will contact the Party receiving the request and request participation in the applicable transmission service studies. The Parties will coordinate with respect to the nature of studies to be performed to test the impacts of the requested service on the potentially impacted Party, who will perform the studies. The Parties will strive to minimize the costs associated with the coordinated study process. The JRPC will develop screening procedures to assist in the identification of service requests that may impact systems of parties other than the system receiving the request.
- (d) Any coordinated studies will be performed in accordance with the mutually agreed upon study scope and timeline requirements developed by the Parties. If the Parties cannot mutually agree on the nature and timeline of the studies to be performed they can resolve the differences through the dispute resolution procedures documented in Article XIV of this Agreement.
- (e) If constraints are identified during the coordinated study on the impacted system, then the potentially impacted Party may perform its own analysis in conjunction with the studies performed by the Party that has received the request for service. The customer whose request for service requires mitigation of constraint(s) found on an impacted Party's system shall enter into the appropriate facilities study agreement as required under the impacted Party's OATT. During the Facilities Study, the potentially impacted Party will conduct its own Facilities Study as a part of the Party receiving the request's Facilities Study. The study cost estimates indicated in the study agreement between the Party receiving the request and the transmission service customer will reflect the costs and the associated roles of the study participants. The Party receiving the request will review the cost estimates submitted by all participants for reasonableness, based on expected level of participation and responsibilities in the study.
- (f) The Party receiving the request will collect from the transmission service customer and forward to the potentially impacted system the costs incurred by the potentially impacted systems associated with the performance of such studies.
- (g) If the results of a coordinated study indicate that Network Upgrades are required in accordance with procedures, guidelines, criteria, or standards applicable to the potentially impacted system, the Party receiving the request will identify the need for such Network Upgrades in the system impact study prepared for the transmission service customer.

- (h) Requirements for the construction of such Network Upgrades will be under the terms of the OATTs, agreement among owners of transmission facilities subject to the control of the potentially impacted Party and consistent with applicable federal, state, or provincial regulatory policy.
- (i) In the event that Network Upgrades are required on the potentially impacted Party's system, then transmission service will commence on a schedule mutually agreed upon among the Parties. This schedule will include milestones with respect to the Network Upgrade construction and the amount of service that can commence after each milestone.

9.3.5 Analysis of Incremental Auction Revenue Rights Requests.

The Parties will coordinate, as deemed appropriate,¹ the conduct of any studies in response to a request for Incremental Auction Revenue Rights ("Incremental ARR") ("Incremental ARR Request") made under one Party's tariff to determine its impact on the other Party's system. Results of such coordinated studies will be included in the impacts reported to the customer requesting Incremental ARRs as appropriate. Coordination of studies and Network Upgrades will include the following:

- (a) The Parties will coordinate the base Firm Flow Entitlement values associated with the Coordinated Flowgates that may be impacted by the Incremental ARR Request.
- (b) Upon receipt of an Incremental ARR Request or the review of studies related to the evaluation of such request, the Party receiving the Incremental ARR Request will determine whether the other Party is potentially impacted. If the other Party is potentially impacted, the Party receiving the Incremental ARR Request will notify the other Party and convey the information provided in the request in addition to but not limited to the list of impacted constrained facilities.
- (c) During the System Impact Study, the potentially impacted Party may participate in the coordinated study by providing input to the studies to be performed by the Party receiving the Incremental ARR Request. The potentially impacted Party shall determine the Network Upgrades, if any, needed to mitigate constraints on identified impacted facilities. The Parties shall coordinate to ensure any proposed Network Upgrades maintain the reliability of each Party's transmission system.
- (d) Any coordinated System Impact Studies will be performed in accordance with the mutually agreed upon study timeline requirements developed by the Parties. If the Parties cannot mutually agree on the nature and timeline of the studies to be performed they can resolve the differences through the dispute resolution procedures documented in Article XIV of this Agreement in accordance with applicable tariff provisions.

- (e) During the Facilities Study, the potentially impacted Party may conduct its own Facilities Study as a part of Facilities Study being conducted by the Party that received the Incremental ARR request. The study cost estimates indicated in the Facility Study Agreement between the Party receiving the request and the Incremental ARR customer will reflect the costs and the associated roles of the study participants, including the potentially impacted Party. The Party receiving the request will review the cost estimates submitted by all participants for reasonableness, based on expected level of participation and responsibilities in the study.
- (f) The Party receiving the Incremental ARR Request shall collect from the Incremental ARR customer, and forward to the potentially impacted Party, the agreed upon payments associated with the performance of such studies.
- (g) If the results of the coordinated study indicate that Network Upgrades are required in accordance with procedures, guidelines, criteria, or standards applicable to the potentially impacted Party, the Party receiving the request will identify the need for such Network Upgrades in the System Impact Study prepared for the Incremental ARR customer.
- (h) The construction of such Network Upgrades will be subject to the terms of the potentially impacted Party's tariff, the agreement among owners transferring functional control of transmission facilities to the control of the potentially impacted Party, and applicable federal, state, or provincial regulatory policy.
- (i) In the event that Network Upgrades are required on the potentially impacted Party's system, the Incremental ARR will commence on a schedule mutually agreed upon among the Parties. This schedule will include milestones with respect to the Network Upgrade construction and the amount of service that can commence after each milestone.

¹ *Infra* (b).

9.3.6 Development of the Coordinated System Plan.

9.3.6.1

Each Party agrees to assist in the preparation of a Coordinated System Plan applicable to the Parties' systems. Each Party's annual transmission planning reports will be incorporated into the Coordinated System Plan, however, neither Party shall have the right to veto any planning of the other Party nor shall either Party have the right, under this Section, to obtain financial compensation due to the impact of another Party's plans or additions. The Coordinated System Plan will be finalized only after the IPSAC has had an opportunity to review it and respond. The Coordinated System Plan shall:

- (a) Integrate the Parties' respective transmission expansion plans, including any market-based additions to system infrastructure (such as generation, market participant funded, or merchant transmission projects) and Network Upgrades identified jointly by the Parties, together with alternatives to Network Upgrades that were considered;
- (b) Set forth actions to resolve any impacts that may result across the seams between the Parties' systems due to the integration described in the preceding part (a); and
- (c) Describe results of the joint transmission analysis for the combined transmission systems, as well as explanations, as may be necessary, of the procedures, methodologies, and business rules utilized in preparing and completing the analysis.

9.3.6.2

Coordination of studies required for the development of the Coordinated System Plan will include the following: 1) annual issues review to determine the need for a Coordinated System Plan study described in Section 9.3.6.2.a; and 2) Coordinated System Plan study described in Section 9.3.6.2.b.

- (a) Determine the Need for a Coordinated System Plan Study.
 - (i) On an annual basis, beginning in the fourth quarter of each calendar year and continuing through the first quarter of the following calendar year, the Parties shall perform an annual evaluation of transmission issues identified by each Party including issues from the respective Party's market operations and annual planning processes, or Third-Parties. This annual review of transmission issues will be administered by the JRPC on a mutually agreed to schedule taking into consideration each Party's regional planning cycles.
 - (ii) The JRPC's annual review of transmission issues shall include the following steps:

- a. Exchange of the following information during the fourth quarter of each calendar year:
 - i. Regional issues and newly approved regional projects located near the interface or expected to impact the adjacent region;
 - ii. Newly identified regional transmission issues for which there is no proposed solution;
 - iii. Interconnection requests under coordination by the Parties located near the interface or expected to impact the adjacent region;
 - iv. Market-to-market historical flowgate congestion between the Parties.
- b. Joint review by the Parties of regional issues and solutions in January of each calendar year;
- c. Receipt of Third Party issues in the first quarter of each calendar year;
- d. Review of regional issues with input from stakeholders at the IPSAC meeting conducted during the first quarter of each calendar year; and
- e. Decision by the JRPC on whether or not to conduct a Coordinated System Plan study.

(iii) The JRPC through each Party's respective electronic distribution lists shall provide a minimum of 60 calendar days advance notice of the IPSAC meeting to be held in the first quarter of each year to review identified transmission issues. Stakeholders may identify and submit transmission issues and supporting analysis no later than 30 calendar days in advance of the meeting for consideration by the IPSAC and JRPC.

(iv) ~~Following~~ Within 45 days following the annual issues evaluation meeting with IPSAC in the first quarter of the calendar year, the JRPC will determine, taking into consideration input provided by the IPSAC, the need to perform a Coordinated System Plan study. A Coordinated System Plan study shall be initiated by either of the following: ~~(#1)~~ each Party in the JRPC votes in favor of performing the Coordinated System Plan study; or ~~(#2)~~ if after two consecutive years in which a Coordinated System Plan study has not been performed, and one Party votes in favor of performing a Coordinated System Plan study. The JRPC shall inform the IPSAC of the decision whether or not to initiate a Coordinated

System Plan study within five business days of the JRPC's decision.

(v) When a Coordinated System Plan study is determined to be necessary, the JRPC shall agree to the start date of the study, ~~which shall not exceed 180 calendar days from the date of the JRPC's determination to perform the study, unless the Parties agree to an alternative start date taking into consideration each Party's regional planning cycles and identify whether it is a targeted study as defined in this Section at (vi) or a more complex, two-year cycle study as defined in this Section at (vii).~~

(vi) A Coordinated System Plan study may include targeted studies of particular areas, needs or potential expansions to ensure that the coordination of the reliability and efficiency of the Parties' transmission systems will be conducted during the first half of the calendar year. In years when the Coordinated System Plan study includes only targeted studies as defined herein, they may be conducted at any time during the calendar year but will be targeted for completion within the calendar year in which they are identified.

(vii) A Coordinated System Plan study may include more complex, longer duration studies involving joint model development that addresses reliability, market efficiency or public policy needs. Such studies will be conducted on a two-year cycle commencing in the third quarter of the first year of the two-year cycle, if the need is determined by the JRPC. A Coordinated System Plan study scheduled on a two-year cycle will conclude no later than the end of the second year of the two-year cycle.

(viii) When a Coordinated System Plan study is determined to be necessary by the JRPC, the specific study process steps will depend on the type and scope of the study. The JRPC shall provide the timely, specific deadlines for each step in the Coordinated System Plan study in a timely fashion following the JRPC's decision to initiate such study.

(b) Coordinated System Plan Study Process

(i) Each Party will be responsible for providing the technical support required to complete the analysis for the study. The responsibility for the coordinated study and the compilation of the coordinated study report will alternate between the Parties.

(ii) The JRPC will develop a scope and procedure for the coordinated planning analysis. The scope of the studies will include

evaluations of issues resulting from the annual coordinated review and analysis of the Parties transmission issues. The scope and schedule for the Coordinated System Plan study will include the schedule of IPSAC review and input at all stages of the study. Study scope and assumptions will be documented and provided to the IPSAC for review and comment at an IPSAC meeting scheduled no later than 30 days after the decision to conduct a Coordinated System Plan study.

- (iii) Ad hoc study groups may be formed as needed to address localized seams issues or to perform targeted studies of particular areas, needs, or potential expansions and to ensure the coordinated reliability and efficiency of the systems. Under the direction of the Parties, study groups will formalize how activities will be implemented. Targeted studies will utilize the best available regional models for transmission and market efficiency analysis.
- (iv) The Coordinated System Plan study will consider the identified issues reviewed by the JRPC and IPSAC for further evaluation of potential remedies consistent with the criteria of this Protocol and each Party's criteria. Stakeholder input will be solicited for potential remedies to identified issues, which includes stakeholder and transmission developer proposals for Interregional Projects. The study scope developed under Section 9.3.5.2(b)(ii) will include the schedule for acceptance of such stakeholder Interregional Project proposals including supporting analyses that address issues identified in the JRPC solicitation.
- (v) The Parties will document the scope and assumptions including the process and schedule for the conduct of the study. The scope design will include, as appropriate, evaluation of the transmission system against the reliability criteria, operational performance criteria, economic performance criteria, and public policy needs applicable to each Party.
- (vi) The Parties will use planning models that are developed in accordance with the procedures to be established by the JRPC. The JRPC will develop joint study models consistent with the models and assumptions used for the regional planning cycle most recently completed, or underway, as appropriate. If the Coordinated System Plan study requires transmission evaluations driven by different regional needs (for example transmission that addresses any combination of needs including regional reliability, economics and public policy), then the coordination of studies, models, and assumptions will include the analyses appropriate to each region. The Parties will develop compromises on assumptions when feasible and will incorporate study sensitivities

as appropriate when different regional assumptions must be accommodated. Known updates and revisions to models will be incorporated in a comprehensive fashion when new base planning models are available. Prior to the availability of a new comprehensive base model, known updates will be factored in, as necessary, into the review of results. Models will be available for stakeholder review subject to confidentiality and Critical Energy Infrastructure Information (CEII) processes of the Parties. The IPSAC will have the opportunity to provide feedback to the JRPC regarding the study models.

(vii) When Coordinated System Plan studies are undertaken pursuant to a two-year study cycle defined in this Section at (a)(vii), the following schedule will be followed unless otherwise mutually agreed to be the Parties.

- a. Parties will provide updated identification of regional issues identified in this Section at (a) in the first year of the two-year cycle from June through September.
- b. Regional models will be made available to the IPSAC for stakeholder review and comment in the first year of the two-year cycle from June through September.
- c. Stakeholder Interregional Project proposals, satisfying applicable regional and interregional requirements, will be accepted by PJM in its proposal windows for Long-lead Projects and Economic-based Enhancements or Expansions as detailed in Schedule 6 of the PJM Amended and Restated Operating Agreement.
- d. Stakeholder identification of Interregional Project proposals satisfying the applicable regional and interregional requirements will be accepted in the MISO regional process typically between January through March of the second year of the two-year cycle.
- e. The Parties will evaluate each project proposal in its regional process during the second year of the two-year cycle to determine if a project is eligible for inclusion in the respective regional plans. An Interregional Project must be included in each Party's regional plan to become an approved Interregional Project. The Parties shall target the end of the second year of the two-year cycle to include an approved Interregional Project.

~~(vii)~~(viii) The IPSAC will have the opportunity to provide input into the development of potential solutions. The JRPC will be responsible for the screening and evaluation of potential solutions, including evaluating the proposed projects for designation as an Interregional Project pursuant to Section 9.4.4.1.

~~(viii)~~(ix) Transmission upgrades identified through the analyses conducted according to this Protocol and satisfying the applicable Protocol and regional planning requirements will be included in the Coordinated System Plan after the conclusion of the Coordinated System Plan study and applicable regional analyses. After the conclusion of the Coordinated System Plan study, any project included in the Coordinated System Plan and designated for interregional cost allocation, if not already engaged in the regional review process, will be submitted to the regional processes for review according to Section 9.3.6.2~~(b)~~(x).

~~(ix)~~(x) At the completion of the Coordinated System Plan study, the JRPC shall produce a report documenting the Coordinated System Plan study, including the transmission issues evaluated, studies performed, solutions considered, and, if applicable, recommended Interregional Projects with the associated cost allocation to the Parties pursuant to Section 9.4.4.1. In addition, explanations why proposed Interregional Projects did not move forward in the process will be provided in the final Coordinated System Plan study report. The JRPC shall provide the Coordinated System Plan study report to the IPSAC for review. The IPSAC shall be provided the opportunity to provide input to the JRPC on the Coordinated System Plan study report. The final Coordinated System Plan study report shall be posted on each Party's website.

~~(x)~~(xi) The JRPC's recommended Interregional Projects identified in the Coordinated System Plan study shall be reviewed by each Party through its respective regional processes. Transmission plans to resolve problems will be identified, included in the respective plans of the Parties and will be presented to the respective Parties' Boards for approval and implementation using each Party's procedures for approval. Critical upgrades for which the need to begin development is urgent will be reviewed by each Party in accordance with their procedures and presented to the Parties' Boards for approval as soon as possible after identification through the coordinated planning process. Other projects identified will be reviewed by each Party in accordance with their procedures and presented to the Parties' Boards for approval in the normal regional planning process cycle as long as this cycle does not delay the implementation of a necessary upgrade. The JRPC shall inform

the IPSAC of the outcome of each Party's review of the recommended Interregional Projects.

9.4 Allocation of Costs of Network Upgrades.

9.4.1 Network Upgrades Associated with Interconnections.

When under Section 9.3.3 it is determined that a generation or merchant transmission interconnection to a Party's system will have an impact on the Affected System such that Network Upgrades shall be made, the upgrades on the Affected System shall be paid for in accordance with the terms and conditions of the Party's OATT.

9.4.2 Network Upgrades Associated with Transmission Service Requests.

When under Section 9.3.4 it is determined that the granting of a long-term firm delivery service request with respect to a Party's system will have an impact on the Affected System such that Network Upgrades shall be made, the upgrades on the Affected System shall be paid for in accordance with the terms and conditions of the Party's OATT.

9.4.3 Network Upgrades Associated with Incremental Auction Revenue Rights Requests.

When under Section 9.3.5 it is determined that the granting of an Incremental ARR request with respect to a Party's system will have an impact on the Affected System such that Network Upgrades shall be made, the upgrades on the Affected System shall be paid for in accordance with the terms and conditions of the Affected System's tariff provisions.

9.4.4 Network Upgrades Under Coordinated System Plan.

The Coordinated System Plan will identify Interregional Projects as: (i) Interregional Reliability Projects, (ii) Interregional Market Efficiency Projects, and (iii) Interregional Public Policy Projects. Consistent with the applicable OATT provisions, the Coordinated System Plan will designate the portion of the Interregional Project Cost for each such project that is to be allocated to each RTO on behalf of its Market Participants. The JRPC will determine an allocation of costs to each RTO for such Network Upgrades based on the procedures described below. The proposed allocation of costs will be reviewed with the IPSAC and the appropriate multi-state entities and posted on the internet web site of the two RTOs. Stakeholder input will be solicited and taken into consideration by the JRPC in arriving at a consensus allocation of costs.

9.4.4.1 Criteria for Project Designation as an Interregional Project:

Interregional Projects must be: (1) physically located in both the MISO region and the PJM region or (2) physically located wholly in one transmission planning region but jointly determined and agreed upon to provide benefits to the other transmission planning region or both transmission planning regions. These Interregional Projects will be designated in accordance with the following criteria:

9.4.4.1.1 Interregional Reliability Project Criteria:

An Interregional Reliability Project must:

- (i) be selected both in the MISO and PJM regional planning processes and be eligible for each region's cost allocation process; and
- (ii) by agreement of the JRPC, displace one or more reliability projects in either or both PJM and MISO as defined in their respective tariffs and more efficiently or cost-effectively meet applicable reliability criteria than the displaced reliability project(s).

Through their respective regional planning processes, PJM and MISO respectively will evaluate proposals to determine whether the proposed Interregional Reliability Project(s) addresses reliability needs that are currently being addressed with reliability projects in its regional transmission planning process and, if so, which reliability projects in that regional transmission planning process could be displaced by the proposed Interregional Reliability Project. The analysis of projects that are eligible to be displaced shall only include those projects that have not yet been approved by PJM's and MISO's respective Board and made part of the RTO's respective regional transmission plan.

9.4.4.1.2 Interregional Market Efficiency Project Criteria:

Interregional Market Efficiency Projects must meet the following criteria:

- (i) is evaluated as part of a Coordinated System Plan or joint study process, as described in Section 9.3.6 of the JOA;
- ~~(ii) meets the threshold benefit to cost ratio as prescribed under the terms of, and using the benefit and cost measures prescribed under Section 9.4.4.1.2.1 of the JOA;~~
- ~~(iii)~~ qualifies as an economic transmission enhancement or expansion under the terms of the PJM RTEP and also qualifies as a market efficiency project under the terms of Attachment FF of the MISO OATT (including all applicable threshold criteria), provided that any minimum Project Cost threshold required to qualify a project under either the PJM RTEP or MISO OATT shall apply the Project Cost of the Interregional Market Efficiency Project and not the allocated cost; and
- ~~(iviii)~~ addresses one or more constraints for which at least one dispatchable generator in the adjacent market has a GLDF of 5% or greater with respect to serving load in that adjacent market, as determined using the Coordinated System Plan power flow model.

9.4.4.1.2.1 Determination of Benefits to Each RTO from an Interregional Market Efficiency Project:

The RTOs shall jointly evaluate the benefits to the combined MISO and PJM markets, and to each market individually, by evaluating multiple metrics using a multi-year analysis to determine whether a proposed project qualified as an Interregional Market Efficiency Project. The RTOs shall perform this evaluation as follows:

- (a) The RTOs shall utilize their respective tariffs^a benefit metrics to analyze the anticipated annual economic benefits of construction of a proposed Interregional Market Efficiency Project to Transmission Customers of each RTO. ~~Benefits are measured for a project by the estimated change in the benefit metric with and without the incorporation of the proposed project. The benefit metric is based upon the impact of the project on: (1) APC (adjusted to account for purchases and sales) and (2) NLP. The benefit metric for each RTO shall be developed by weighting the APC benefit and the NLP benefit. The benefit metric shall be calculated as the sum of seventy percent (70%) times the change in APC benefit for each RTO plus thirty percent (30%) times the change in NLP benefit for each RTO where the change in APC and NLP is calculated by subtracting the APC and NLP values determined without the proposed Interregional Market Efficiency Project:~~

$$\text{Benefit Metric} = (70\% \text{ of change in APC} + 30\% \text{ of change in NLP})$$

~~The APC for each RTO represents each RTO's production costs adjusted for interchange purchases and sales. For each simulation hour in which an RTO is selling interchange, the APC shall be calculated by multiplying the interchange sales MW times the RTO's generation-weighted LMP and then subtracting this value from the RTO's production cost. For each simulation hour in which an RTO is purchasing interchange, the APC shall be calculated by multiplying the interchange purchase MW times the RTO's load-weighted LMP and then adding this value to the RTO's production cost.~~

~~The NLP benefit for each RTO represents each RTO's gross load payment minus the estimated value of congestion-hedging transmission rights in each RTO. The NLP shall be calculated by multiplying the LMP at each modeled load bus in the RTO by the load (in MW) at the bus, for each simulation hour (load LMP * load (in MW)), and then subtracting from that product the estimated value of congestion-hedging transmission rights for that hour. For each simulation hour, the value of an RTO's transmission rights shall be calculated by subtracting the RTO generation-weighted LMP from the RTO load-weighted LMP and then multiplying this difference times the lower of the RTO's total generation MW level or the RTO's total load MW level.~~

~~The benefit metric shall be calculated for each RTO for each year of simulation. Benefits for intermediate years between simulated years will be based on interpolation. The annual benefit for an Interregional Market Efficiency Project shall be determined as the sum of the benefit values for each RTO. The total project benefit shall be determined by calculating the present value of annual benefits for, at a minimum, the first ten years of project life after the projected in-service year, with a maximum planning horizon of 20 years from the current year.~~

- (b) ~~The RTOs shall employ a threshold benefits to costs ratio test to evaluate a potential Interregional Market Efficiency Project. Only projects that meet the benefits to costs ratio threshold shall be designated as an Interregional Market Efficiency Project.~~ The costs applied in the ~~benefits-to-costs ratio~~ cost allocation calculation pursuant to Section 9.4.4.2.2 shall be the present value, over the same period for which the project benefits are determined, of the annual revenue requirements for the project. The annual revenue requirements for the Interregional Market Efficiency Project are determined from the estimated Interregional Market Efficiency Project installed costs and the fixed charge rate applicable to the constructing transmission owner(s).

~~The benefits to costs ratio threshold for a project to qualify as an Interregional Market Efficiency Project shall be 1.25 to 1.~~ To determine the present value of the annual benefits and costs, the discount rate shall be based on the transmission owners' most recent after-tax embedded cost of capital weighted by each transmission owner's total transmission capitalization. Each transmission owner shall provide the RTOs with the transmission owner's most recent after-tax embedded cost of capital, total transmission capitalization, and levelized carrying charge rate, including the recovery period. The recovery period shall be consistent with recovery periods allowed by FERC for comparable facilities.

- (c) Using the cost allocated to each RTO pursuant to Section 9.4.4.2.2 of the JOA, ~~and the Coordinated System Plan model, including using the same simulation years,~~ each RTO will evaluate the project using its internal criteria to determine if it qualifies as an economic transmission enhancement or expansion under the terms of the PJM RTEP and also qualifies as a market efficiency project under the terms of Attachment FF of the MISO OATT.

9.4.43.1.3 Interregional Public Policy Project Criteria:

Interregional Public Policy Projects must meet the following criteria:

- (i) be selected both in the MISO and PJM regional planning processes and be eligible for each region's cost allocation process; and

(ii) by agreement of the JRPC, displace one or more regional projects addressing public policy in MISO or one or more public policy projects in PJM as defined in their respective tariffs and more efficiently or cost-effectively meet applicable public policy criteria than the displaced regional project(s).

Through their respective regional planning processes, PJM and MISO respectively will evaluate proposals to determine whether the proposed Interregional Public Policy Project(s) addresses public policy needs that are currently being addressed with public policy projects in its regional transmission planning process and, if so, which public policy projects in that regional transmission planning process could be displaced by the proposed Interregional Public Policy Project. The analysis of projects that are eligible to be displaced shall only include those projects that have not yet been approved by PJM's and MISO's respective Board and made part of the RTO's respective regional transmission plan.

9.4.4.2 Interregional Project Benefits and Shares:

The Coordinated System Plan shall designate the share of the Project Cost to be allocated to each RTO as set forth in the following subsections:

9.4.4.2.1 Cost Allocation for an Interregional Reliability Project:

The cost of an Interregional Reliability Project, selected in the regional transmission plans of both PJM and MISO, will be allocated as follows:

(i) The share of the costs an Interregional Reliability Project allocated to a region will be determined by the ratio of the present value(s) of the estimated costs of such region's displaced reliability projects as agreed to by the RTOs to the total of the present value(s) of the estimated costs of the displaced reliability projects in both regions that have selected the Interregional Reliability Project in their respective regional plans.

(ii) For purposes of this subsection, a displaced reliability project's estimated costs shall be determined by PJM and MISO in accordance with their respective procedures for defining project estimated costs. Notwithstanding the foregoing, both RTOs shall work to ensure that their cost estimates for displaced reliability projects are determined in a similar manner. The applicable discount rate(s) used for the MISO region shall be the discount rate proposed by the Transmission Owner that produces the cost estimate for the proposed project. The applicable discount rate(s) used for the PJM region shall be the discount rate included in the assumptions reviewed by the PJM Board of Managers each year for use in the economic planning process.

(iii) Costs allocated to each region shall be further allocated within each region pursuant to the cost allocation methodology contained in each region's respective regional transmission planning process.

9.4.4.2.2 Cost Allocation for an Interregional Market Efficiency Project:

For Interregional Market Efficiency Projects that meet all of the qualifications in Section 9.4.4.1.2, the applicable project costs shall be allocated to the respective RTOs in proportion to the net present value of the total benefits calculated for each RTO pursuant to Section 9.4.4.1.2.1(a) each RTO's respective tariff.

9.4.4.2.3 Cost Allocation for an Interregional Public Policy Project:

The cost of an Interregional Public Policy Project, selected in the regional transmission plans of both PJM and MISO, will be allocated as follows:

(i) The share of the costs for an Interregional Public Policy Project allocated to a region will be determined by the ratio of the present value(s) of the estimated costs of such region's displaced public policy projects to the total of the present value(s) of the estimated costs of the displaced public policy projects in both regions that have selected the Interregional Public Policy Project in their respective regional plans.

(ii) For purposes of this subsection, a displaced regional public policy project's estimated costs shall be determined by PJM and MISO in accordance with their respective procedures for defining project estimated costs. Notwithstanding the foregoing, both RTOs shall work to ensure that their cost estimates for displaced public policy projects are determined in a similar manner. The applicable discount rate(s) used for the MISO region shall be the discount rate developed by MISO for cost estimates for projects under review by the MISO Board of Directors. The applicable discount rate(s) used for the PJM region shall be the discount rate included in the assumptions reviewed by the PJM Board of Managers each year for use in the economic planning process.

(iii) Costs allocated to each region shall be further allocated within each region pursuant to the cost allocation methodology contained in each region's respective regional transmission planning process.

9.4.4.3 Determination of Interregional Cost Allocation Share Outside of Coordinated System Plan:

Either RTO may request that a project be tested against the interregional cost allocation criteria during the interim periods between periodic formal releases of the Coordinated System Plan. The RTOs will conduct reviews between the formal cycles on at least an

annual basis. Such tests will be performed on the best available joint planning model, as determined by the JRPC.

The joint planning model will be a minimum 5-year horizon case, modeling peak summer conditions, and will be developed by February of each year. It will be based on the current RTEP basecase for PJM and the current MTEP basecase for MISO. The basecase developed by each RTO will be based on documented procedures, which, in turn, will guide the development of the joint RTO planning model. Any disputes that arise will be resolved through the dispute resolution procedures documented in Article XIV. Each year the model will be updated by the RTOs to include changes to long term firm transmission service, load forecast, topology changes, generation additions/retirements and any other relevant system changes that may have occurred since the previous years' basecase development. The joint RTO planning model will be available to any member of PJM or MISO.

9.4.4.4 Cost Recovery of Interregional Allocation Shares:

The cost recovery of any share of cost of an Interregional Project allocated to either RTO shall be recovered by each RTO according to the applicable tariff provisions of the RTO to which such cost recovery is allocated.

9.4.4.5 Transmission Owners Filing Rights:

Nothing in this Section 9.4 shall affect or limit any Transmission Owners filing rights under Section 205 of the Federal Power Act as set forth in the applicable Tariffs and applicable agreements.

9.4.4.6 Amendments:

The RTOs shall amend Article IX of this Agreement in accordance with the applicable tariffs and/or agreements.