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June 20, 2016

VIA ELECTRONIC FILING

The Honorable Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

**Re: Midcontinent Independent System Operator, Inc.'s and MISO Transmission Owners' Compliance Filing for Order No. 1000, Regarding Interregional Coordination with PJM, Docket No. ER13-1943, et al**

Dear Secretary Bose:

In compliance with the requirements of the Federal Energy Regulatory Commission's ("FERC" or "Commission") April 5, 2016 Order on Rehearing and Compliance ("April 5 Order"),<sup>1</sup> the Midcontinent Independent System Operator, Inc. ("MISO") and the MISO Transmission Owners<sup>2</sup> (collectively with MISO, the "Filing Parties") submit for filing proposed

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<sup>1</sup> *Midcontinent Independent System Operator, Inc., et al.*, 155 FERC ¶ 61,008 (Apr. 5, 2016).

<sup>2</sup> The MISO Transmission Owners for this filing consist of: Ameren Services Company, as agent for Union Electric Company d/b/a Ameren Missouri, Ameren Illinois Company d/b/a Ameren Illinois and Ameren Transmission Company of Illinois; Arkansas Electric Cooperative Corporation; Big Rivers Electric Corporation; Central Minnesota Municipal Power Agency; City Water, Light & Power; Cleco Power, LLC; Dairyland Power Cooperative; East Texas Electric Cooperative; Entergy Arkansas, Inc.; Entergy Louisiana, LLC; Entergy Mississippi, Inc.; Entergy New Orleans, Inc.; Entergy Texas, Inc.; Great River Energy; Hoosier Energy Rural Electric Cooperative, Inc.; Indianapolis Power Light Company; MidAmerican Energy Company; Minnesota Power (and its subsidiary Superior Water, L&P); Missouri River Energy Services; Montana-Dakota Utilities Co.; Northern States Power Company, a Minnesota corporation, and Northern States Power Company, a Wisconsin corporation, subsidiaries of Xcel Energy Inc.; Otter Tail Power Company; Prairie Power Inc.; South Mississippi Electric Power Association; Southern Illinois Power Cooperative; Southern Indiana Gas & Electric Company (d/b/a Vectren Energy Delivery of Indiana); Southern Minnesota Municipal Power Agency; Wabash Valley Power Association; and Wolverine Power Supply Cooperative, Inc.

The MISO Transmission Owners, individually or jointly, reserve the right to submit separate comments on this filing.

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revisions to the Joint Operating Agreement between MISO and PJM Interconnection, LLC (“JOA”) to comply with the requirements of the April 5 Order regarding Order No. 1000’s interregional planning and cost allocations requirements as applicable to MISO and PJM, LLC.

## I. BACKGROUND

### A. Order No. 1000’s Interregional Coordination and Cost Allocation Requirements

Order No. 1000<sup>3</sup> expanded on the planning requirements of Order No. 890<sup>4</sup> by requiring each public utility transmission provider to establish procedures with each of its neighboring transmission planning regions for the purposes of coordinating and sharing regional transmission plans to identify possible interregional transmission facilities that are more efficient and cost-effective than separate, regional, solutions to each region’s needs.<sup>5</sup> Order No. 1000 also required neighboring transmission planning regions to jointly evaluate those interregional facilities that both regions had identified through their regional processes, including those proposed by transmission developers and stakeholders.<sup>6</sup>

To facilitate interregional evaluation and cost allocation, the Commission required each public utility transmission provider to, *inter alia*, develop with each neighboring planning region, a common set of methods for allocating the costs of a new interregional facility among the beneficiaries in each region.<sup>7</sup> The Commission required that the common set of methods satisfy six interregional cost allocation principles.<sup>8</sup> A proposed interregional transmission project would

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<sup>3</sup> *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, FERC Stats. & Regs. ¶ 31,323 (2011), *order on reh’g*, Order No. 1000-A, 139 FERC ¶ 61,132 (2012), *order on reh’g and clarification*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012).

<sup>4</sup> *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, FERC Stats. & Regs. ¶ 31,241, *order on reh’g*, Order No. 890-A, FERC Stats. & Regs. ¶ 31,261 (2007), *order on reh’g*, Order No. 890-B, 123 FERC ¶ 61,299 (2008), *order on reh’g*, Order No. 890-C, 126 FERC ¶ 61,228, *order on clarification*, Order No. 890-D, 129 FERC ¶ 61,126 (2009).

<sup>5</sup> *Order No. 1000-A* at P 494 (citing Order No. 1000 at P 398).

<sup>6</sup> *Id.* at P 522.

<sup>7</sup> *Order No. 1000* at PP 578, 582.

<sup>8</sup> *Id.* at PP 603, 622-693. The six cost allocation principles are: (1) costs must be allocated in a way that is roughly commensurate with benefits; (2) there must be no involuntary cost allocation to non-beneficiaries; (3) a benefit to cost threshold ratio cannot exceed 1.25; (4) costs must be allocated solely within the transmission planning region or pair of regions unless those outside the region or pair of regions voluntarily assume costs; (5) there must be a transparent method for determining benefits and identifying beneficiaries; and (6) there may be different methods for different types of transmission facilities.

become eligible for interregional cost allocation by being selected in the regional plans of the two neighboring planning regions in which the facility is to be located.<sup>9</sup>

## **B. Docket Background**

On July 10, 2013, the Filing Parties submitted their proposals for compliance with Order No. 1000's interregional coordination and evaluation requirements in two related filings (collectively the "MISO Initial Filings"). The first filing, made in Docket No. ER13-1943 ("JOA Filing"), proposed revisions to Article IX of the JOA to implement the agreement between MISO and PJM regarding evaluation and cost allocation of proposed interregional projects.<sup>10</sup> The JOA Filing proposed clarifications and modifications to the existing JOA.<sup>11</sup> The second filing, made in Docket No. ER13-1945, proposed modifications to Attachment FF of MISO's Tariff to identify the interregional coordination procedures proposed in the JOA Filing in the Tariff ("Attachment FF Filing").<sup>12</sup> The MISO Initial Filings proposed JOA and Tariff modifications relating to: (1) interregional coordination; (2) data exchange and facility identification; (3) joint evaluation procedures; (4) transparency and stakeholder participation; (5) elimination of Cross Border Baseline Reliability Projects ("CBBR Projects") from the JOA; and (6) cost allocation methods for Cross-Border Market Efficiency Projects ("CBME Projects").<sup>13</sup> On July 10, 2013, PJM and the PJM Transmission Owners made separate filings proposing competing modifications to the JOA<sup>14</sup> due to a disagreement with MISO relating to certain aspects of interregional cost allocation.<sup>15</sup>

On December 18, 2014, the Commission issued an order partially accepting MISO and PJM's filings (the "December 18 Order").<sup>16</sup> The December 18 Order directed MISO and PJM to revise their currently existing CBBR Project and/or CBME Project cost allocation method(s), or

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<sup>9</sup> *Id.* at P 400.

<sup>10</sup> MISO and MISO Transmission Owners' Compliance Filing for Order No. 1000, Regarding Interregional Transmission Project Coordination and Cost Allocation with PJM Interconnection, L.L.C., Docket No. ER13-1943 (filed July 10, 2013).

<sup>11</sup> MISO's Attachment FF Revisions Accounting For Order No. 1000 Interregional Transmission Project Coordination and Cost Allocation Arrangements, Docket No. ER13-1945 (filed July 10, 2013).

<sup>12</sup> *Id.*

<sup>13</sup> *See generally, JOA Filing; Attachment FF Filing.*

<sup>14</sup> PJM's Submission of Interregional Transmission Coordination Procedures Between PJM Interconnection, L.L.C. and Midcontinent Independent System Operator, Inc., Docket No. ER13-1944 (filed July 10, 2013); PJM Transmission Owners' Filing Regarding Compliance with Interregional Cost Allocation Requirements of Order No. 1000," Docket No. ER13-1924 (filed July 10, 2013).

<sup>15</sup> JOA Filing at 2; *PJM Interconnection, L.L.C.*, 149 FERC ¶ 61,250 at P 34 (2014).

<sup>16</sup> *PJM Interconnection, L.L.C.*, 149 FERC ¶ 61,250 (2014).

propose a new interregional cost allocation method(s) that provide for the joint evaluation of reliability and public policy driven projects, which must be eligible to be selected in both MISO's and PJM's plans for purposes of cost allocation.<sup>17</sup>

On July 31, 2015, the Filing Parties and PJM made coordinated compliance filings proposing common JOA language for a new cost allocation method and new interregional project types, that allow for the joint evaluation and cost allocation of interregional projects addressing reliability, economic, and public policy needs.<sup>18</sup>

On April 5, 2016, the Commission issued the April 5 Order conditionally accepting the Filing Parties and PJM's proposed changes to the JOA, subject to further compliance. MISO and PJM, along with their respective Transmission Owners, sought an extension of the compliance deadline until June 20, 2016, which the Commission granted.<sup>19</sup> On May 5, 2016, the MISO Transmission Owners filed a request for rehearing of the April 5 Order.<sup>20</sup> Also on May 5, 2016, PJM and the PJM Transmission Owners filed a request for clarification or, in the alternative, rehearing of the April 5 Order.<sup>21</sup> The Commission has not yet ruled on these motions.

PJM and MISO, together with their transmission owners, have engaged in extensive outreach and coordination. Significantly, PJM, MISO, the MISO Transmission Owners and the PJM Transmission Owners have reached full agreement on all points at issue in this compliance filing and have collaborated in drafting their respective transmittal letters. Accordingly, those parties are hereby submitting (by separate filings being made contemporaneously) parallel tariff language to comply with the April 5 Order. Pursuant to the December 18 Order, this compliance filing, if approved is to be made effective January 1, 2014.<sup>22</sup>

### **III. COMPLIANCE WITH THE DIRECTIVES OF THE APRIL 5 ORDER**

The Filing Parties address each of the directives from the April 5 Order below:

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<sup>17</sup> *Id.* at PP 193-94.

<sup>18</sup> PJM's Order No. 1000 Interregional Compliance Filing, Docket No. ER13-1944-000, *et al.* (filed July 31, 2015); Filing Parties' Compliance Filing for Order No. 1000, Regarding Interregional Coordination with PJM, Docket Nos. ER13-1943-002, *et al.* (July 31, 2015).

<sup>19</sup> *Notice of Extension of Time*, Docket Nos. ER13-1944, *et al.* (May 4, 2016)

<sup>20</sup> MISO Transmission Owner's Request for Rehearing, Docket Nos. ER13-1943-02, *et al.* (filed May 5, 2016).

<sup>21</sup> PJM Transmission Owners' Motion for Clarification or, in the Alternative, Request for Rehearing, Docket Nos. ER13-1944-001, *et al.* (filed May 5, 2016).

<sup>22</sup> *December 18 Order* at P 41.

### **A. Restoring CBBRs and CBBR Cost Allocation to the JOA**

The Commission accepted the Filing Parties and PJM's proposed new IRP category and associated cost allocation provisions.<sup>23</sup> However, the April 5 Order also directed MISO and PJM to restore the CBBR Project classification and cost allocation language to the JOA.<sup>24</sup>

The Filing Parties and PJM propose to comply with this directive by restoring the CBBR Project criteria provisions to the JOA in Section 9.4.3.1.1 ("Cross-Border Baseline Reliability Project Criteria"), the CBBR Project cost allocation provisions in Section 9.4.3.2.1 ("Cost Allocation for Cross-Border Baseline Reliability Projects"), and references to CBBRs in Sections 9.4.3 ("Network Upgrades Under Coordinated System Plan."). The Filing Parties and PJM propose nonsubstantive renumbering in Article IX of the JOA to facilitate these revisions.

The Filing Parties note that the CBBR Project and IRPs categories would, in most instances, apply to the same interregional transmission projects.<sup>25</sup> This overlap is intentional because MISO and PJM developed and proposed the IRP category as a replacement for CBBR Projects.<sup>26</sup> However, while a given project could simultaneously qualify as an IRP and CBBR Project, the cost allocation provisions for these two project types differ. CBBR Projects are cost allocated pursuant to JOA Section 9.4.3.2.1, which uses a DFAX calculation to assign cost responsibility based on each RTO's contribution to the combined Load causing the constraint that the project is intended to alleviate.<sup>27</sup> IRPs are cost allocated pursuant to JOA Section 9.4.3.2.2, which assigns cost responsibility based on the avoided costs of displaced reliability projects in each RTO.<sup>28</sup> Restoring the CBBR Project category and cost allocation provisions while retaining the approved IRP provisions creates a high likelihood that a given interregional transmission project could be eligible for cost allocation pursuant to two different methodologies. Implementing the Commission's directive therefore requires MISO and PJM to establish which of the two methodologies will govern where a project qualifies as both a CBBR Project and an IRP because they cannot both apply. MISO and PJM have agreed to address this issue by employing the IRP cost allocation provisions in JOA Section 9.4.3.2.2 by default and to utilize the CBBR Project cost allocation provisions in JOA Section 9.4.3.2.1 only where a

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<sup>23</sup> *April 5 Order* at PP 45-46.

<sup>24</sup> *April 5 Order* at P 27.

<sup>25</sup> CBBR Projects include "projects needed to efficiently meet applicable reliability criteria" and "must be a baseline reliability project as defined under MISO or the PJM Tariffs". *See Tabs A & B* at proposed JOA section 9.4.3.1.1 (a) & (b) (restored provisions). IRPs are those that "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)." *See* JOA at Section 9.4.3.1.2 (ii) & (b).

<sup>26</sup> Joint Filers' Compliance Filing for Order No. 1000, Regarding Interregional Coordination with PJM, Docket Nos. ER13-1943-002, *et al* (filed July 31, 2015) at 12-15.

<sup>27</sup> *See* Tabs A & B at proposed JOA Section 9.4.3.2.1 (a) & (b).

<sup>28</sup> JOA section 9.4.3.2.2 (i).

proposed project qualifies as a CBBR Project but not as an IRP.

## **B. Regional Projects included in Avoided Cost Analysis**

The Commission found that the Filing Parties' and PJM's proposed avoided cost only methodology for calculating the benefits of IRPs and IPPs complies with Interregional Cost Allocation Principles 2, 3, 4, and 6, but not with Principles 1 and 5.<sup>29</sup>

### **i. Projects Approved in the Regional Transmission Plan**

The Commission found, with regard to Interregional Cost Allocation Principle 1, that MISO and PJM have not explained how they could determine that a proposed interregional transmission project is more efficient or cost-effective than a regional project if the regional project that is the reference for the avoided cost analysis has not already been selected and approved by MISO and PJM in their regional processes.<sup>30</sup> Accordingly, the April 5 Order directed MISO and PJM to revise the JOA to state that MISO and PJM will quantify benefits of an interregional transmission project based upon the total avoided costs of regional transmission projects included in the then-current regional transmission plan for purposes of cost allocation that would be displaced.<sup>31</sup>

The Filing Parties and PJM have complied with this directive by revising the end of the last paragraph of JOA Section 9.4.3.1.2 to state:

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. MISO and PJM will quantify the benefits of an Interregional Reliability Project based upon the total avoided costs of regional transmission projects included in the then-current regional transmission plan that would be displaced if the proposed Interregional Reliability Project was included in the plan.<sup>32</sup>

and the last paragraph of JOA Section 9.4.3.1.4 to state:

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. MISO and PJM will quantify the

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<sup>29</sup> April 5 Order at P 46.

<sup>30</sup> *Id.* at PP 50-51.

<sup>31</sup> *Id.* at P 51.

<sup>32</sup> See Tabs A & B at proposed JOA section 9.4.3.1.2. The Filing Parties propose this language because, under MISO's Tariff, BRPs are part of the regional transmission plan but are not a part of the regional transmission plan for purposes of cost allocation. The proposed language implements the Commission's directive by making it explicit that BRPs may be avoided by an IRP even though they are not part of the regional plan for purposes of cost allocation.

benefits of an Interregional Public Policy Project based upon the total avoided costs of regional transmission projects included in the then-current regional transmission plan for purposes of cost allocation that would be displaced if the proposed Interregional Public Policy Project was included in the plan.<sup>33</sup>

The Filing Parties submit that these revisions fully comply with the Commission's directive.

**ii. Projects included as Reliability Projects**

The Commission found that MISO and PJM's proposed avoided cost-only cost allocation method for Interregional Reliability Projects and Interregional Public Policy Projects does not fully comply with Interregional Cost Allocation Principle 5, which requires that the cost allocation method and data requirements for determining interregional project benefits and beneficiaries be transparent and adequately documented to enable stakeholders to determine how they were applied to a proposed interregional transmission facility.<sup>34</sup> The Commission therefore directed MISO and PJM to revise the JOA to clarify what types of regional projects will be considered in the avoided cost calculation for IRPs and IPPs.<sup>35</sup>

The Commission directed MISO and PJM to revise the JOA to state that, in MISO, "reliability projects" include Multi-Value Projects and Baseline Reliability Projects.<sup>36</sup> The Filing Parties propose to comply with this directive by adding language to JOA Section 9.4.3.1.2 stating, "Reliability projects in the MISO regional transmission planning process include Baseline Reliability Projects and, to the extent the project driver is reliability, Multi-Value Projects."<sup>37</sup> It is necessary to restrict the inclusion of MVPs as reliability projects to those MVPs for which reliability is a project driver. Under MISO's Tariff, MVPs can be approved if they address specified combinations of public policy, economic, and/or reliability needs.<sup>38</sup> Thus, only some MVPs address reliability needs. The proposed JOA revisions clarify that those MVPs that are driven in part by reliability will be included as IRPs, while excluding those that address only economic and public policy needs. The Filing Parties submit that this revision implements the Commission's directive to include all regional reliability projects within the ambit of IRPs.

The Commission directed MISO and PJM to revise the JOA to clarify that "public policy projects" include Multi-Value Projects in MISO and both economic and reliability projects in PJM.<sup>39</sup> The Filing Parties propose to comply with this directive by adding language to JOA Section 9.4.3.1.4 stating, "Public policy projects in the MISO regional transmission planning

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<sup>33</sup> See Tabs A & B at proposed JOA section 9.4.3.1.4.

<sup>34</sup> *April 5 Order* at P 52.

<sup>35</sup> *Id.* at P 53.

<sup>36</sup> *Id.*

<sup>37</sup> See Tabs A & B at proposed JOA Section 9.4.3.1.2.

<sup>38</sup> MISO Tariff, Attachment FF § II.C.2(1)-(3).

<sup>39</sup> *April 5 Order* at P 53.

process include to the extent that the project driver is public policy, Multi-Value Projects. Public policy projects in the PJM regional transmission planning process include both economic and reliability projects.”<sup>40</sup> It is necessary to restrict the inclusion of MVPs as IPPs to those MVPs for which public policy was a driver for the project. Pursuant to Attachment FF Section II.C.2 of MISO’s Tariff, MVPs can be approved if they address specified combinations of public policy, economic, and/or reliability needs.<sup>41</sup> Thus, as discussed above, only some MVPs will address public policy needs. The Filing Parties and PJM’s proposed JOA revisions clarify that those MVPs that are driven in part by public policy will be included as IPPs, while excluding those that address only reliability and economic needs. The Filing Parties submit that these revisions fully implement the Commission’s directive by including all regional public policy-driven projects within the ambit of IPPs.

### iii. Projects included as Interregional Market Efficiency Projects

The Commission found that the Filing Parties and PJM’s proposed cost allocation method for Interregional Market Efficiency Projects (“IMEs”) does not comply with Interregional Cost Allocation Principle 5 because it is not clear what types of transmission facilities will be considered in the benefit metric calculation for IMEs.<sup>42</sup> The Commission noted that MISO has two types of regional projects that can capture economic benefits, *viz*: MEPs and MVPs. The Commission therefore found that in order for the proposed IME Project cost allocation method to fully capture economic benefits, an IME Project must be able to qualify as an MVP or MEP under MISO’s Tariff. The Commission accordingly directed MISO and PJM to revise section 9.4.3.1.2 to allow IME Projects to qualify as either an MEP or an MVP under MISO’s Tariff.<sup>43</sup>

The Filing Parties propose to comply with this directive by revising JOA Section 9.4.3.1.3 (Interregional Market Efficiency Project Criteria)<sup>44</sup> to state:

(iv) qualifies as an economic transmission enhancement or expansion under the terms of the PJM RTEP and also qualifies as a Market eEfficiency pProject or, to the extent the project driver is economics, a Multi-Value Project under the terms of Attachment FF...<sup>45</sup>

This revision complies with the Commission’s directive by making the inclusion of MVPs as economic projects explicit. It is necessary to restrict the inclusion of MVPs as IME Projects to those MVPs for which economics was a driver for the project. Pursuant to Attachment FF Section II.C.2 of MISO’s Tariff, MVPs can be approved if they address specified combinations

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<sup>40</sup> See Tabs A & B at proposed JOA section 9.4.3.1.4.

<sup>41</sup> MISO Tariff, Attachment FF § II.C.2(1)-(3).

<sup>42</sup> *April 5 Order* at P 59.

<sup>43</sup> *April 5 Order* at P 61.

<sup>44</sup> This Section has been renumbered from 9.4.3.1.3 to accommodate the re-inclusion of CBBR Projects into the JOA.

<sup>45</sup> See Tabs A & B at proposed JOA section 9.4.3.1.4



of public policy, economic, and/or reliability needs.<sup>46</sup> Thus, as discussed above, only some MVPs will address economic needs. The Filing Parties' and PJM's proposed JOA revisions clarify that those MVPs that are driven in part by economics will be included as IMEs, while excluding those that address only reliability and public policy needs.

### **C. Explanation of Differences in MISO's Avoided Cost Calculation**

The Commission found that MISO and PJM's proposed JOA language for determining the discount rate that MISO would use to calculate avoided costs for IPPs and IRPs was unclear and required explanation.<sup>47</sup> Specifically, the Commission noted that MISO proposes to use a different discount rate for IRPs and IPPs. For IRPs, MISO proposed to use "the discount rate proposed by the Transmission Owner that produces the cost estimate for the proposed project."<sup>48</sup> For IPPs, MISO proposed to use the "discount rate developed by MISO for cost estimates for projects under review by the MISO Board of Directors."<sup>49</sup> The Commission directed MISO and PJM to explain the reason for this difference on compliance. The Filing Parties therefore provide the following explanation.

For both JOA Section 9.4.3.2.2 (Interregional Reliability Projects) and 9.4.3.2.3 (Interregional Public Policy Projects), MISO and PJM have proposed to estimate costs "in accordance with their respective procedures for defining project estimated costs."<sup>50</sup> The reason that the source of the discount rate is different for IRPs (the Transmission Owner as source) and IPPs (MISO as source) is because the cost estimates are developed by different entities at the regional level. Regional reliability projects, historically have been Baseline Reliability Projects in MISO. Baseline Reliability Projects are cost allocated to the local pricing zone of the Transmission Owner building the project. Therefore, the Transmission Owner that proposes the reliability project is responsible for determining the project's cost and, with it, the discount rate. MISO does not prepare its own cost estimate and discount rate for these projects. Therefore, when considering displacement of a regional reliability project by an IRP, the cost and discount information to be considered in the avoided cost calculation is that previously supplied by the Transmission Owner for the Project to be avoided.

Regional public policy projects, which are Multi-Value Projects in MISO, are developed through the MTEP and are subject to the Competitive Selection Process in Attachment FF to MISO's Tariff. Because these are subject to competition, MISO prepares the original cost estimate as set forth in Attachment FF Section II.C.7 ("Project Costs will be set equal to the present value of the annual revenue requirements projected for the first 20 years of the project's life."). This estimate is used to approve the project for inclusion in MTEP before a developer is assigned responsibility for the project pursuant to the Competitive Selection Process. However,

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<sup>46</sup> MISO Tariff, Attachment FF § II.C.2(1)-(3).

<sup>47</sup> *April 5 Order* at P 54.

<sup>48</sup> *Id.* quoting proposed JOA Section 9.4.3.2.1(ii)

<sup>49</sup> *Id.* quoting proposed JOA Section 9.4.3.2.3(ii).

<sup>50</sup> *See* Tabs A & B at proposed JOA sections 9.4.3.2.2 and 9.4.3.2.3.

because MISO is supplying the cost estimates without yet knowing what developer will be selected, MISO—rather than an incumbent—must calculate a discount rate.<sup>51</sup> MISO's discount rate represents the average after-tax weighted cost of capital for MISO Transmission Owners. Thus, the differences in who determines costs in the regional process are simply carried forward and reflected in the JOA's provisions for IRPs and IPPs.

### **III. REQUEST FOR WAIVER**

The Filing Parties make this filing in compliance with the Commission's directives in the April 5 Order. By making this filing in compliance with the April 5 Order, the Filing Parties understand that they have hereby satisfied any of the Commission's filing requirements that might apply. Should any of the Commission's regulations (including filing regulations) or requirements that we may not have addressed be found to apply, the Filing Parties respectfully request waiver of any such regulation or requirement.

### **IV. SERVICE**

MISO has served a copy of this filing electronically, including attachments, upon all persons listed on the Commission's service list for the above-referenced proceeding, Tariff Customers, MISO Members, Member representatives of Transmission Owners and Non-Transmission Owners, MISO Advisory Committee participants, as well as all state commissions within the Region, and the Organization of MISO States. In addition, the filing has been posted at <https://www.misoenergy.org/Library/FERCFilingsOrders/Pages/FERCFilings.aspx> on MISO's website, for other interested parties in this matter.

### **V. SUPPORTING DOCUMENTS**

In addition to this Transmittal Letter, the following documents are submitted with this filing:

- Tab A – Redlined Version of JOA Sheets effective 1/1/2014<sup>52</sup>
- Tab B – Clean Version of JOA Sheets effective 1/1/2014
- Tab C – Clean Version of JOA Sheets effective 5/30/2016<sup>53</sup>

### **VI. PROPOSED EFFECTIVE DATE**

The Filing Parties respectfully request that the proposed JOA revisions be made effective

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<sup>51</sup> Note that this also would hold true for Interregional Market Efficiency Projects ("IMEPs") if they were evaluated based on the avoided cost of regional MEPs in MISO. IMEPs do not, however, rely on avoided costs like IRPs and IPPs. *See* JOA Section 9.4.3.1.3.

<sup>52</sup> The Tariff sheets contained in Tab A reflect a January 1, 2014 effective date. Accordingly, MISO has omitted language that has a proposed future effective date.

<sup>53</sup> The Tariff sheets contained in Tab C reflect a May 30, 2016 effective date and include all Tariff language effective through that date.

January 1, 2014, consistent with the effective date ordered in the December 18 Order.

## **VII. CORRESPONDENCE AND COMMUNICATIONS**

Correspondence and communications with respect to this filing should be sent to the following persons, who shall also be authorized to receive notice in this docket:

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MISO Transmission Owners*

Honorable Kimberly D. Bose, Secretary

June 20, 2016

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## VIII. CONCLUSION

Wherefore, the Filing Parties respectfully request that the Commission accept this compliance filing and proposed JOA revisions, effective January 1, 2014.

Sincerely,

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TAB A

## 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 Under Coordinated System Plan.

The Coordinated System Plan will identify Interregional Projects as: (i) [Cross-Border Baseline Reliability Projects \("CBBRP"\)](#), (ii) [Interregional Reliability Projects](#), (iii) [Interregional Market Efficiency Projects](#), and (iv) [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.

#### 9.4.3.1 **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:

##### 9.4.3.1.1 Cross-Border Baseline Reliability Project Criteria:

[Projects that meet all of the following criteria will be designated as CBBRPs:](#)

[\(i\) by agreement of the JRPC, the project is needed to efficiently meet applicable reliability criteria;](#)

[\(ii\) the project must be a baseline reliability project as defined under the MISO or PJM Tariffs.](#)

#### **9.4.3.1.2 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. Reliability projects in the MISO regional transmission planning process include Baseline Reliability Projects and, to the extent the project driver is reliability, Multi-Value Projects. MISO and PJM will quantify the benefits of an Interregional Reliability Project based upon the total avoided costs of regional transmission projects included in the then-current regional transmission plan that would be displaced if the proposed Interregional Reliability Project was included in the plan. ~~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.~~

#### **9.4.3.1.23 Interregional Market Efficiency Project Criteria:**

Interregional Market Efficiency Projects must meet the following criteria:

- (i) has an estimated Project Cost of \$20,000,000 or greater;
- (ii) is evaluated as part of a Coordinated System Plan or joint study process, as described in Section 9.3.5 of the JOA;
- (iii) meets the threshold benefit to cost ratio as prescribed under the terms of, and using the benefit and cost measures prescribed under Section 9.4.3.1.2.1 of the JOA;
- (iv) qualifies as an economic transmission enhancement or expansion under the terms of the PJM RTEP and also qualifies as a Market Efficiency Project or, to the extent the project driver is economics, a Multi-Value Project under the terms of Attachment FF of the Midwest ISO OATT (including all applicable threshold criteria), provided that any minimum Project Cost threshold required to qualify a project under either

the PJM RTEP or Midwest ISO OATT shall apply the Project Cost of the Interregional Market Efficiency Project and not the allocated cost; and

(v) 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.

#### **9.4.3.1.23.1 Determination of Benefits to Each RTO from an Interregional Market Efficiency Project:**

The RTOs shall jointly evaluate the benefits to the combined Midwest ISO 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 a benefit metric 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 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 9.4.3.2.2 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 Midwest ISO OATT.

#### **9.4.3.1.43 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. Public policy projects in the MISO regional transmission planning process include, to the extent that the project driver is public policy, Multi-Value Projects. Public policy projects in the PJM regional transmission planning process include both economic and reliability projects. MISO and PJM will quantify the benefits of an Interregional Public Policy Project based upon the total avoided costs of regional transmission projects included in the then-current regional transmission plan that for the purposes of cost allocation would be displaced if the proposed Interregional Public Policy Project was included in the plan. ~~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.~~

#### **9.4.3.2 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:

##### **9.4.3.2.1 Cost Allocation for Cross-Border Baseline Reliability Projects**

- (a) Method for Thermal Constraints: The Coordinated System Plan shall designate the share of the Project Cost to be allocated to each RTO based on the relative contribution of the combined Load of each RTO to loading on the constrained facility requiring the need for the

CBBRP. The loading contribution will be pre-determined using a joint RTO planning model developed and agreed to by the planning staffs of both RTOs. This model will form the basecase from which reliability needs on the combined systems will be determined for the Coordinated System Plan. The model, adjusted for the conditions driving the upgrade needs, will be used to calculate the DFAX for cost allocation purposes for each RTO, using a source of the aggregate of RTO generation (network resources) for each RTO to a sink of all Loads within that RTO. The DFAX is the appropriate distribution factor for the condition causing the upgrade; OTDF for contingency condition flow criteria violations, and PTDF for normal condition flow criteria violations. The DFAX calculation determines the MW flow impact attributable to each RTO on the constraint requiring the transmission system to be upgraded. The total load of each RTO for the condition modeled is multiplied by the DFAX associated with that RTO to determine the respective MW flow contribution of that RTO to the constraint. The RTOs will quantify the relative impact due to PJM's system and the relative impact due to the Midwest ISO's system and then will allocate between PJM and the Midwest ISO the load contributions to the reliability constraint on the system by calculating the relative impacts caused by each RTO. This methodology will determine the extent to which each RTO contributes to the need for a reliability upgrade consistent with the Coordinated System Plan modeling that determined the need for the upgrade. The Midwest ISO total load impacts will be allocated to the Midwest ISO and the PJM total load impacts will be allocated to PJM. PJM and the Midwest ISO will then reallocate their shares internally in accordance with their respective tariffs. By calculating the impacts in this manner, the RTOs will ensure that the relative contribution of each RTO (including both the aggravating and benefiting contributions of generation and load patterns within each RTO) to the need for a particular upgrade, is appropriately captured in the ensuing allocations, and that the allocation is consistent with the Coordinated System Plan modeling that determined the need for the upgrade.

**(b) Method for Non-Thermal Constraints:**

The JRPC will establish an interface, comprised of a number of transmission facilities, to serve as a surrogate for allocation of cost responsibility for non-thermal constraints. The interface will be established such that the aggregate flow on the interface best represents the non-thermal constraint which the CBBRP is proposed to alleviate. Allocation of cost responsibility for the non-thermal constraint will be determined by applying the procedures described in this Section to the interface serving as a surrogate for the constraint.

**9.4.3.2.2 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.

**9.4.3.2.23 Cost Allocation for an Interregional Market Efficiency Project:**

For Interregional Market Efficiency Projects that meet all of the qualifications in Section 9.4.3.1.2, 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 9.4.3.1.2.1(a).

**9.4.3.2.43 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.

#### **9.4.3.3 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 the Midwest ISO. 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 the Midwest ISO.

#### **9.4.3.4 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.

**9.4.3.5 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.

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**9.4.3.6 Amendments:**

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

TAB B



## **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 Under Coordinated System Plan.**

The Coordinated System Plan will identify Interregional Projects as: (i) Cross-Border Baseline Reliability Projects ("CBBRP"), (ii) Interregional Reliability Projects, (iii) Interregional Market Efficiency Projects, and (iv) 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.

#### **9.4.3.1 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:

##### **9.4.3.1.1 Cross-Border Baseline Reliability Project Criteria:**

Projects that meet all of the following criteria will be designated as CBBRPs:

- (i) by agreement of the JRPC, the project is needed to efficiently meet applicable reliability criteria;
- (ii) the project must be a baseline reliability project as defined under the MISO or PJM Tariffs.

#### **9.4.3.1.2 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. Reliability projects in the MISO regional transmission planning process include Baseline Reliability Projects and, to the extent the project driver is reliability, Multi-Value Projects. MISO and PJM will quantify the benefits of an Interregional Reliability Project based upon the total avoided costs of regional transmission projects included in the then-current regional transmission plan that would be displaced if the proposed Interregional Reliability Project was included in the plan.

#### **9.4.3.1.3 Interregional Market Efficiency Project Criteria:**

Interregional Market Efficiency Projects must meet the following criteria:

- (i) has an estimated Project Cost of \$20,000,000 or greater;
- (ii) is evaluated as part of a Coordinated System Plan or joint study process, as described in Section 9.3.5 of the JOA;
- (iii) meets the threshold benefit to cost ratio as prescribed under the terms of, and using the benefit and cost measures prescribed under Section 9.4.3.1.2.1 of the JOA;
- (iv) qualifies as an economic transmission enhancement or expansion under the terms of the PJM RTEP and also qualifies as a Market Efficiency Project or, to the extent the project driver is economics, a Multi-Value Project under the terms of Attachment FF of the Midwest ISO OATT (including all applicable threshold criteria), provided that any minimum Project Cost threshold required to qualify a project under either the PJM RTEP or Midwest ISO OATT shall apply the Project Cost of the Interregional Market Efficiency Project and not the allocated cost; and

- (v) 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.

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

The RTOs shall jointly evaluate the benefits to the combined Midwest ISO 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 a benefit metric 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 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 9.4.3.2.2 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 Midwest ISO OATT.

#### **9.4.3.1.4 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. Public policy projects in the MISO regional transmission planning process include, to the extent that the project driver is public policy, Multi-Value Projects. Public policy projects in the PJM regional transmission planning process include both economic and reliability projects. MISO and PJM will quantify the benefits of an Interregional Public Policy Project based upon the total avoided costs of regional transmission projects included in the then-current regional transmission plan that for the purposes of cost allocation would be displaced if the proposed Interregional Public Policy Project was included in the plan.

#### **9.4.3.2 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:

##### **9.4.3.2.1 Cost Allocation for Cross-Border Baseline Reliability Projects**

- (a) **Method for Thermal Constraints:** The Coordinated System Plan shall designate the share of the Project Cost to be allocated to each RTO based on the relative contribution of the combined Load of each RTO to loading on the constrained facility requiring the need for the CBBRP. The loading contribution will be pre-determined using a joint RTO planning model developed and agreed to by the planning staffs of both RTOs. This model will form the basecase from which reliability needs on the combined systems will be determined for the Coordinated

System Plan. The model, adjusted for the conditions driving the upgrade needs, will be used to calculate the DFAX for cost allocation purposes for each RTO, using a source of the aggregate of RTO generation (network resources) for each RTO to a sink of all Loads within that RTO. The DFAX is the appropriate distribution factor for the condition causing the upgrade; OTDF for contingency condition flow criteria violations, and PTDF for normal condition flow criteria violations. The DFAX calculation determines the MW flow impact attributable to each RTO on the constraint requiring the transmission system to be upgraded. The total load of each RTO for the condition modeled is multiplied by the DFAX associated with that RTO to determine the respective MW flow contribution of that RTO to the constraint. The RTOs will quantify the relative impact due to PJM's system and the relative impact due to the Midwest ISO's system and then will allocate between PJM and the Midwest ISO the load contributions to the reliability constraint on the system by calculating the relative impacts caused by each RTO. This methodology will determine the extent to which each RTO contributes to the need for a reliability upgrade consistent with the Coordinated System Plan modeling that determined the need for the upgrade. The Midwest ISO total load impacts will be allocated to the Midwest ISO and the PJM total load impacts will be allocated to PJM. PJM and the Midwest ISO will then reallocate their shares internally in accordance with their respective tariffs. By calculating the impacts in this manner, the RTOs will ensure that the relative contribution of each RTO (including both the aggravating and benefiting contributions of generation and load patterns within each RTO) to the need for a particular upgrade, is appropriately captured in the ensuing allocations, and that the allocation is consistent with the Coordinated System Plan modeling that determined the need for the upgrade.

**(b) Method for Non-Thermal Constraints:**

The JRPC will establish an interface, comprised of a number of transmission facilities, to serve as a surrogate for allocation of cost responsibility for non-thermal constraints. The interface will be established such that the aggregate flow on the interface best represents the non-thermal constraint which the CBBRP is proposed to alleviate. Allocation of cost responsibility for the non-thermal constraint will be determined by applying the procedures described in this Section to the interface serving as a surrogate for the constraint.

**9.4.3.2.2 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.

#### **9.4.3.2.3 Cost Allocation for an Interregional Market Efficiency Project:**

For Interregional Market Efficiency Projects that meet all of the qualifications in Section 9.4.3.1.2, 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 9.4.3.1.2.1(a).

#### **9.4.3.2.4 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.

#### **9.4.3.3 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 the Midwest ISO. 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 the Midwest ISO.

#### **9.4.3.4 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.

#### **9.4.3.5 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.



**9.4.3.6 Amendments:**

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

TAB C

## **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) Cross-Border Baseline Reliability Projects ("CBBRP"), (ii) Interregional Reliability Projects, (iii) Interregional Market Efficiency Projects, and (iv) 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 Cross-Border Baseline Reliability Project Criteria:**

Projects that meet all of the following criteria will be designated as CBBRPs:

- (i) by agreement of the JRPC, the project is needed to efficiently meet applicable reliability criteria;
- (ii) the project must be a baseline reliability project as defined under the MISO or PJM Tariffs.

**9.4.4.1.2 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. Reliability projects in the MISO regional transmission planning process include Baseline Reliability Projects and, to the extent the project driver is reliability, Multi-Value Projects. MISO and PJM will quantify the benefits of an Interregional Reliability Project based upon the total avoided costs of regional transmission projects included in the then-current regional transmission plan that would be displaced if the proposed Interregional Reliability Project was included in the plan.

**9.4.4.1.3 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 or, to the extent the project driver is economics, a Multi-Value 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

(iv) 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.

**9.4.4.1.3.1 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 a benefit metric 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 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.

#### **9.4.4.1.4 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. Public policy projects in the MISO regional transmission planning process include, to the extent that the project driver is public policy, Multi-Value Projects. Public policy projects in the PJM regional transmission planning process include both economic and reliability projects. MISO and PJM will quantify the benefits of an Interregional Public Policy Project based upon the total avoided costs of regional transmission projects included in the then-current regional transmission plan for purposes of cost allocation that would be displaced if the proposed Interregional Public Policy Project was included in the 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 Cross-Border Baseline Reliability Projects**

- (a) **Method for Thermal Constraints:** The Coordinated System Plan shall designate the share of the Project Cost to be allocated to each

RTO based on the relative contribution of the combined Load of each RTO to loading on the constrained facility requiring the need for the CBBRP. The loading contribution will be pre-determined using a joint RTO planning model developed and agreed to by the planning staffs of both RTOs. This model will form the basecase from which reliability needs on the combined systems will be determined for the Coordinated System Plan. The model, adjusted for the conditions driving the upgrade needs, will be used to calculate the DFAX for cost allocation purposes for each RTO, using a source of the aggregate of RTO generation (network resources) for each RTO to a sink of all Loads within that RTO. The DFAX is the appropriate distribution factor for the condition causing the upgrade; OTDF for contingency condition flow criteria violations, and PTDF for normal condition flow criteria violations. The DFAX calculation determines the MW flow impact attributable to each RTO on the constraint requiring the transmission system to be upgraded. The total load of each RTO for the condition modeled is multiplied by the DFAX associated with that RTO to determine the respective MW flow contribution of that RTO to the constraint. The RTOs will quantify the relative impact due to PJM's system and the relative impact due to MISO's system and then will allocate between PJM and MISO the load contributions to the reliability constraint on the system by calculating the relative impacts caused by each RTO. This methodology will determine the extent to which each RTO contributes to the need for a reliability upgrade consistent with the Coordinated System Plan modeling that determined the need for the upgrade. The Midwest ISO total load impacts will be allocated to MISO and the PJM total load impacts will be allocated to PJM. PJM and MISO will then reallocate their shares internally in accordance with their respective tariffs. By calculating the impacts in this manner, the RTOs will ensure that the relative contribution of each RTO (including both the aggravating and benefiting contributions of generation and load patterns within each RTO) to the need for a particular upgrade, is appropriately captured in the ensuing allocations, and that the allocation is consistent with the Coordinated System Plan modeling that determined the need for the upgrade.

**(b) Method for Non-Thermal Constraints:**

The JRPC will establish an interface, comprised of a number of transmission facilities, to serve as a surrogate for allocation of cost responsibility for non-thermal constraints. The interface will be established such that the aggregate flow on the interface best represents the non-thermal constraint which the CBBRP is proposed to alleviate. Allocation of cost responsibility for the non-thermal constraint will be determined by applying the procedures described in this Section to the interface serving as a surrogate for the constraint.



**9.4.4.2.2 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.

**9.4.4.2.3 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).

**9.4.4.2.4 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.