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

Re: ***Midwest Independent Transmission System Operator, Inc.
and the MISO Transmission Owners***
Docket No. ER13-____-000
Revisions to Cost Allocation of Baseline Reliability Projects

Dear Secretary Bose:

Pursuant to section 205 of the Federal Power Act (“FPA”), 16 U.S.C. § 824d, and Part 35 of the Federal Energy Regulatory Commission’s (“Commission”) regulations, 18 C.F.R. Part 35, the Midwest Independent Transmission System Operator, Inc. (“MISO”) and the MISO Transmission Owners¹ (collectively, the “Filing Parties”) propose revisions to the MISO Open Access Transmission, Energy and Operating Reserve Markets Tariff (“Tariff”) to modify the cost allocation methodology for Baseline Reliability Projects (“BRP”). The Filing Parties request that the proposed Tariff revisions be made effective on the same date requested for Tariff changes submitted by the Filing Parties in a concurrent compliance filing in response to the regional transmission planning and cost allocation requirements of Order Nos. 1000, 1000-A,

¹ 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; City Water, Light & Power (Springfield, IL); Dairyland Power Cooperative; Great River Energy; Hoosier Energy Rural Electric Cooperative, Inc.; Indianapolis Power & Light Company; Minnesota Power (and its subsidiary Superior Water, L&P); Missouri River Energy Services; Montana-Dakota Utilities Co.; Northern Indiana Public Service Company; Northern States Power Company, a Minnesota corporation, and Northern States Power Company, a Wisconsin corporation, subsidiaries of Xcel Energy Inc.; Northwestern Wisconsin Electric Company; Otter Tail Power Company; Southern Illinois Power Cooperative; Southern Indiana Gas & Electric Company (d/b/a Vectren Energy Delivery of Indiana); and Southern Minnesota Municipal Power Agency.

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and 1000-B.² In particular, the Filing Parties request that the Tariff revisions submitted in this filing be made effective with the first annual planning cycle, beginning on June 1, following the issuance of the Commission's order on MISO's Order No. 1000 compliance filing.

I. INTRODUCTION AND BACKGROUND

A. Overview of the Filing

In this filing, the Filing Parties propose to modify the cost allocation provisions applicable to BRPs, in recognition of the changes to transmission planning and cost allocation that MISO has adopted since the BRP category of transmission facilities was established, and to reflect the local characteristics of such projects. The cost allocation methodology proposed in this filing is just and reasonable, and consistent with Commission and judicial precedent on cost allocation and the Commission's six cost allocation principles articulated in Order No. 1000.

As discussed in more detail below, through the evolutionary process of MISO's Regional Expansion Criteria and Benefits ("RECB") efforts and the various filings that resulted from those efforts, MISO has developed a continuum of transmission facility classifications, from BRPs to Market Efficiency Projects ("MEPs") to Multi-Value Projects ("MVPs"), with the former designed to address local transmission reliability issues and the latter providing efficient and cost-effective solutions to multiple regional transmission needs. Modifying the BRP cost allocation method at this time is appropriate, given the localized function that these reliability projects address, along with the creation of MEPs, which are designed to address economic needs and also sweep in some reliability benefits, and MVPs that can displace numerous BRPs by solving multiple reliability issues and addressing regional transmission needs more efficiently or cost-effectively.

B. MISO Transmission Project Categories³

MISO adopted the BRP category of transmission facilities and associated cost allocation in 2006 in Docket No. ER06-18-000,⁴ along with other project categories designed to

² *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, III FERC Stats. & Regs., Regs. Preambles ¶ 31,323 (2011), *order on reh'g and clarification*, Order No. 1000-A, 139 FERC ¶ 61,132, *order on reh'g and clarification*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012).

³ This discussion addresses only transmission project categories that are identified as part of MISO's Transmission Expansion Plan ("MTEP") planning process and assigned cost sharing. MISO also has other project categories, such as reliability-related "other" projects that are in the MTEP, but not cost shared; and other project categories and associated cost allocation for generation interconnection and transmission delivery service projects.

accommodate requests for transmission or interconnection service. BRPs are Network Upgrades required to ensure that the MISO transmission system remains in compliance with Applicable Reliability Standards adopted by the national Electric Reliability Organization (“ERO”) and by the appropriate Regional Entities.⁵ BRPs include projects operating at 100 kV or above that are needed to maintain reliability while accommodating the ongoing needs of existing Transmission Customers. Under the Tariff proposed in the RECB I Filing, BRPs can be categorized as “cost shared” or “not cost shared” depending on project cost. For a BRP to be considered for cost sharing it must have: (1) a project cost of \$5 million or greater; or (2) a project cost under \$5 million that is 5% or more of the constructing Transmission Owner’s net transmission plant.⁶ For cost shared BRPs, costs are primarily allocated to individual transmission pricing zones on the basis of a Line Outage Distribution Factor (“LODF”) analysis.⁷ Also, under the Tariff proposed in the RECB I Filing,⁸ the costs of BRPs with a voltage class of 345 kV and higher are eligible for partial regional cost allocation of 20%, with the remaining 80% of the costs of each BRP being allocated to individual transmission pricing zones based on the LODF analysis.

As part of the RECB I Filing, MISO also created a category of transmission projects called Regionally Beneficial Projects (“RBP”), which were economic upgrades that meet specific standards, including costing more than \$5 million, having a voltage primarily of 345 kV or

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⁴ *Midwest Indep. Transmission Sys. Operator, Inc.*, 114 FERC ¶ 61,106 (“RECB I Order”), *order on reh’g*, 117 FERC ¶ 61,241 (2006) (“RECB I Rehearing Order”).

⁵ *See* Section 1.38 of the Tariff, defining BRPs. *See also* Cost Allocation Policy Filing of Midwest Independent Transmission System Operator, Inc., Docket No. ER06-18-000, at 16 (Oct. 7, 2005) (“RECB I Filing”), which at that time referred to the “North American Electric Reliability Council (‘NERC’), regional reliability councils, or successor organizations.”

⁶ *Id.* at 19.

⁷ The LODF analysis identifies the beneficiaries of the BRP based on a flow-based impact that the new transmission line would have on the total flows in any other zone as a total percentage of all other zones. Section 1.356 of the Tariff defines the LODF as: “[t]he percent of flow on line A, which is transferred to line B for the loss of line A.” Further explanation on the LODF analysis is available in Appendix J to the Transmission Planning Business Practices Manual No. 020 (Nov. 15, 2011), <https://www.midwestiso.org/Library/BusinessPracticesManuals/Pages/BusinessPracticesManuals.aspx>.

⁸ RECB I Filing at 19 and Tab B, Original Sheet No. 1843.

greater, and meeting defined benefit-to-cost requirements.⁹ MISO subsequently adopted a cost allocation methodology for RBPs, under which 20% of the costs of an RBP are allocated regionally and 80% are allocated on a subregional basis based on a beneficiary analysis.¹⁰ Since the RECB II Filing, MISO renamed RBPs as MEPs,¹¹ and also recently revised the Tariff provisions governing MEPs to, among other things, modify the benefit-to-cost requirements for MEPs.¹²

In 2010, following an extensive stakeholder process, MISO established the MVP transmission project category and associated cost allocation.¹³ MVPs are designed to enable the reliable and economic delivery of energy in support of documented energy policy mandates and address, through the development of a robust transmission system, multiple reliability and/or economic issues affecting multiple transmission zones. Recognizing the regional orientation of MVPs, MISO adopted an allocation methodology that allocates MVP costs to all load in,¹⁴ and exports from,¹⁵ the MISO region on a postage-stamp basis. The MVP transmission project category, and its associated broad-based cost allocation, are designed to, among other things, enable MISO to address multiple reliability needs and provide economic opportunities through regional transmission development.¹⁶

⁹ Compliance Filing of Midwest Independent Transmission System Operator, Inc., Docket No. ER06-18-004, at 8 (Nov. 1, 2006) (“RECB II Filing”); *see also* Tariff, Attachment FF § III.A.2.f.

¹⁰ *Midwest Indep. Transmission Sys. Operator, Inc.*, 118 FERC ¶ 61,209 (“RECB II Order”), *order on reh’g*, 120 FERC ¶ 61,080 (2007) (“RECB II Rehearing Order”).

¹¹ *See* Submittal of Midwest Independent Transmission System Operator, Inc. and the Midwest ISO Transmission Owners, Docket No. ER10-1791-000, at 4 (July 15, 2010) (“MVP Filing”) (changing the terminology from “Regionally Beneficial Project” to “Market Efficiency Project”).

¹² *Midwest Indep. Transmission Sys. Operator, Inc.*, 139 FERC ¶ 61,261 (2012) (accepting, among other revisions, revisions to lower the benefit-to-cost ratio for MEPs to 1.25).

¹³ *Midwest Indep. Transmission Sys. Operator, Inc.*, 133 FERC ¶ 61,221 (2010) (“MVP Order”), *order on reh’g*, 137 FERC ¶ 61,074 (2011) (“MVP Rehearing Order”).

¹⁴ Load served under Grandfathered Agreements are excluded from MVP cost allocation. Tariff, Schedule 26-A.

¹⁵ Exports to PJM are excluded from the MVP cost allocation. *See* MVP Order at PP 439-442.

¹⁶ MVP Filing at 2.

II. MODIFICATIONS TO BRP COST ALLOCATION

In this filing, the Filing Parties propose modifications to the existing BRP cost allocation provisions to provide for 100% of the costs of BRPs to be allocated to the pricing zone where the BRP is located. Given the evolution of MISO's transmission planning process and creation of additional project types such as MEPs and MVPs allocation of the costs of BRPs on a 100% local basis is consistent with the primary use of such facilities and is just and reasonable.

Specifically, the Filing Parties propose to modify Section III.A.2.c of Attachment FF of the Tariff, which governs cost allocation for BRPs, to indicate that the costs of BRPs will be recovered pursuant to the constructing Transmission Owner's transmission formula rate set forth in Attachment O of the Tariff, with the constructing Transmission Owner determined in accordance with the Transmission Owners Agreement.¹⁷ The revisions replace the existing cost allocation methodology based on LODF and partial regional allocation for projects meeting certain voltage thresholds. The Filing Parties also propose a conforming change to the introductory paragraph of Section III.A.2 of Attachment FF.

The Filing Parties are not modifying the definition of BRPs. Projects that today qualify as BRPs will continue to qualify after this filing.

III. JUSTIFICATION FOR THE TARIFF REVISIONS

A. The Proposed BRP Cost Allocation Method Is Just and Reasonable

Allocating 100% of the costs of BRPs to the pricing zone where the project is located is just and reasonable and consistent with Commission and judicial precedent, given that the primary benefits of BRPs are realized at the local level and the fact that MISO's adoption of additional transmission project categories such as MEPs, that are evaluated at the subregional and regional level, and MVPs, that are evaluated at the regional level on a portfolio (rather than individual) basis, has greatly diminished the role of BRPs in providing subregional and region-wide benefits. Revising MISO's BRP cost allocation at this time is therefore appropriate.

MISO's experience with BRP cost allocation to date demonstrates that BRPs serve local reliability purposes and provide local benefits in the pricing zone where they are located, justifying a change in the cost allocation methodology to allocate 100% of the costs to the pricing zone where the project is located. As Ms. Curran testifies, under the current BRP cost allocation methodology, a significant majority of the total costs of cost shared BRPs are

¹⁷ Agreement of the Transmission Facilities Owner to Organize the Midwest Independent Transmission System Operator, Inc., A Delaware Non-Stock Corporation. References to Transmission Owner include Independent Transmission Companies.

allocated to the pricing zone where the project is located.¹⁸ Specifically, of the 78 cost shared BRPs approved in MISO's regional plan since the BRP category was adopted in MTEP 06,¹⁹ 62 BRPs, or 80% of the BRPs approved, had at least 75% of their costs allocated to the pricing zone where the BRP is located.²⁰ Further, more than half of all approved cost shared BRPs have had only minimal costs allocated outside of the pricing zone where the project is located, with more than 90% of the costs actually being allocated to the pricing zone where the project is located.²¹ In addition to minimal cost sharing resulting from the LODF analysis, there also has been limited use of the 20% postage stamp allocation, with only 17 of the 78 approved cost shared BRPs having at least one 345 kV or greater facility.²²

Moreover, as Ms. Curran indicates, the vast majority of BRPs are located exclusively in a single pricing zone. Specifically, more than 90% of the transmission facilities making up the 78 approved cost shared BRPs were designated as having a geographical location in a single pricing zone.²³

Because the LODF methodology determines the pricing zones having flows impacted by BRPs, this analysis of current BRP cost allocation demonstrates that the benefits provided by BRPs are realized primarily in the pricing zone where the BRP is located. As a result, the Filing Parties propose to modify the cost allocation methodology for BRPs to allocate 100% of the costs of each BRP to the pricing zone in which it is located. Allocating the costs of BRPs to the pricing zones where they are physically located is just and reasonable and consistent with Commission and judicial precedent.

As the Commission has recognized, “[t]he FPA does not define ‘just and reasonable,’ and the Commission is not limited to one method of determining what is just and reasonable. . . . [A] proposal does not need to be perfect, or the most desirable way of doing things, it need only be just and reasonable.”²⁴ In reviewing a proposed cost allocation methodology, the Commission is

¹⁸ Exhibit No. MISO-1 (Prepared Direct Testimony of Jennifer Curran on Behalf of Midwest Independent Transmission System Operator, Inc. and MISO Transmission Owners) at 10-11 (“Exhibit No. MISO-1 (Curran Testimony)”).

¹⁹ The data used for this statistic includes 6 BRPs that are proposed to be included in MTEP12.

²⁰ Exhibit No. MISO-1 (Curran Testimony) at 10.

²¹ *Id.* at 10-11.

²² *Id.* at 11.

²³ *Id.*

²⁴ *Entergy Servs., Inc.*, 116 FERC ¶ 61,275, at P 32 (2006) (citing *Pub. Serv. Comm’n of Ind.*, Opinion No. 349, 51 FERC ¶ 61,367, at 62,222, *order on reh’g sub nom. PSI* (continued. . .)

not required to determine that the proposed methodology is superior to all other possible cost allocation methodologies.²⁵ Indeed, “the mere fact that the methodology can be refined does not undercut [the Commission’s] conclusion that [a proposed] method affords a just and reasonable rate for transmission customers. As the court noted . . . ‘reasonableness is a zone, not a pinpoint.’”²⁶

The Commission and the courts also have indicated that, for a cost allocation methodology to be just and reasonable, the methodology must adhere to the cost-causation rule, which establishes that the rates charged to customers must reflect “to some degree” the costs of providing the service.²⁷ The Commission need not allocate costs “with exacting precision,”²⁸ as

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Energy, Inc., 52 FERC ¶ 61,260, *order granting clarification*, 53 FERC ¶ 61,131 (1990); *Pac. Gas & Elec. Co.*, 110 FERC ¶ 63,026 (2005); *Cal. Indep. Sys. Operator Corp.*, 106 FERC ¶ 63,026, at P 57 (2004); *New Eng. Power Co.*, Opinion No. 352, 52 FERC ¶ 61,090, at 61,336 (1990); *Cities of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir. 1984); *Oxy USA, Inc. v. FERC*, 64 F.3d 679, 692 (D.C. Cir. 1995)).

²⁵ See *Oxy USA*, 64 F.3d at 692 (finding that under the Federal Power Act, as long as the Commission finds a methodology to be just and reasonable, that methodology “need not be the only reasonable methodology, or even the most accurate”); *Cities of Bethany*, 727 F.2d at 1136 (utility needs to establish that its proposed rate is reasonable, not that it is superior to alternatives); *Cal. Indep. Sys. Operator Corp.*, 120 FERC ¶ 61,023, at P 45 n.34 (2007) (“For a proposal to be acceptable, it need not be perfect nor even the most desirable; it need only be reasonable.”); *Louisville Gas & Elec. Co.*, 114 FERC ¶ 61,282, at P 29 (2006) (“[T]he just and reasonable standard under the FPA is not so rigid as to limit rates to a ‘best rate’ or ‘most efficient rate’ standard. Rather, a range of alternative approaches often may be just and reasonable.”), *order on reh’g sub nom. E. ON U.S. LLC*, 116 FERC ¶ 61,020 (2006); Opinion No. 352 at 61,336.

²⁶ *Midwest Indep. Transmission Sys. Operator, Inc.*, 131 FERC ¶ 61,185, at P 25 (2010) (quoting *Wis. Pub. Power Inc. v. FERC*, 993 F.3d 239, 266 (D.C. Cir. 2007)).

²⁷ *K N Energy, Inc. v. FERC*, 968 F.2d 1295, 1300 (D.C. Cir. 1992); see also *San Diego Gas & Elec. Co. v. Sellers of Energy & Ancillary Servs.*, 127 FERC ¶ 61,250, at P 43 (2009) (“[C]ost causation principles require that ‘all approved rates reflect *to some degree* the costs actually caused by the customer who must pay them.’ Compliance with this principle is evaluated ‘by comparing that costs assessed against a party to the burden imposed or the benefits drawn by that party.’”) (citing *Midwest ISO Transmission Owners v. FERC*, 373 F.3d 1361, 1368 (D.C. Cir. 2004)); *ISO New Eng., Inc.*, 115 FERC ¶ 61,145, at P 13 (2006) (“Under cost causation principles, costs are allocated to the parties who cause the incurrence of such costs.”).

cost allocation inherently “involves judgment on a myriad of facts.”²⁹ In fact, the U.S. Supreme Court has stated that “allocation of costs is not a matter for the slide-rule. It involves judgment on a myriad of facts. It has no claim to an exact science.”³⁰ Likewise, in approving a cost allocation methodology, the Commission is not required to “calculate benefits to the last penny, or for that matter to the last million or ten million or perhaps hundred million dollars.”³¹ Nor is the Commission obligated to “reject any rate mechanism that tracks the cost-causation principle less than perfectly.”³² Instead, the Commission must have “an articulable and plausible reason to believe that the *benefits are at least roughly commensurate*” with the costs allocated to a party.³³

As the actual cost allocation data for BRPs illustrates, the majority of the costs of BRPs are allocated to the pricing zone where the project is located, which demonstrates that the primary beneficiaries of a BRP are the customers located in the pricing zone where the project is located. In addition, as Ms. Curran demonstrates, the vast majority of BRPs are located in one pricing zone,³⁴ further demonstrating their local nature. Allocating 100% of the costs of a BRP to the pricing zone where it is located, therefore, ensures that costs are allocated in a manner that is “roughly commensurate” with the benefits. While the BRP cost allocation methodology has resulted in a small percentage of BRP costs being allocated outside of the pricing zone where it is located, MISO need not allocate costs with “exacting precision” in order to demonstrate that its BRP cost allocation proposal is just and reasonable, nor is the Commission authorized to reject the proposed methodology on the basis that it tracks cost causation “less than perfectly.”³⁵

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²⁸ *Midwest ISO Transmission Owners*, 373 F.3d at 1369; *see also Transmission Access Policy Study Group v. FERC*, 225 F.3d 667, 708 (D.C. Cir. 2000), *aff’d sub nom N.Y. v. FERC*, 535 U.S.1 (2002); *K N Energy*, 968 F.2d at 1300.

²⁹ *Colo. Interstate Gas Co. v. FPC*, 324 U.S. 581, 589 (1945); *see also Midwest ISO Transmission Owners*, 373 F.3d at 1369 (“Also not surprisingly, we have never required a ratemaking agency to allocate costs with exacting precision.”).

³⁰ *Colo. Interstate Gas Co.*, 324 U.S. at 589.

³¹ *Ill. Commerce Comm’n v. FERC*, 576 F.3d 470, 477 (7th Cir. 2009) (citing *Midwest ISO Transmission Owners*, 373 F.3d at 1369).

³² *Sithe/Independence Power Partners, L.P. v. FERC*, 285 F.3d 1, 5 (D.C. Cir. 2002); *see also Ill. Commerce Comm’n*, 576 F.3d at 475-76.

³³ *Ill. Commerce Comm’n*, 576 F.3d at 477 (emphasis added).

³⁴ Exhibit No. MISO-1 (Curran Testimony) at 11.

³⁵ It is worth noting that, in accepting MISO’s MVP Filing, the Commission declined to require MISO to allocate MVP costs to generators, despite claims by some parties that

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The fact remains that, under the proposed BRP cost allocation methodology, costs will be allocated in a manner roughly commensurate with the benefits to the primary beneficiaries of BRPs.

In fact, in approving a recent cost allocation methodology proposed by SPP, the Commission found that SPP's proposed allocation of 100% of the costs of a transmission facility to its host pricing zone was "roughly commensurate" where SPP's analyses demonstrated that 81% of the costs of the facility were allocated to the host pricing zone under SPP's "Megawatt-Mile" ("MW-mile") analysis.³⁶ The Commission approved SPP's elimination of the MW-mile allocation on the basis that, under the MW-mile analysis, "the host zone receives the vast majority of benefits provided by such facilities," and therefore SPP's "proposal to allocate the zonal costs of new facilities directly to the host zone, rather than conduct[ing] a MW-mile analysis to allocate such costs, maintains a cost allocation that is roughly commensurate with the benefits received."³⁷

Accordingly, based on the evidence presented in Ms. Curran's testimony regarding MISO's actual experience with BRP cost allocation since its adoption in 2006, the Commission

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generators benefit from MVPs. MVP Order at P 206. The Commission has similarly declined to require allocation of costs to certain customers despite claims of benefits in other Regional Transmission Organizations ("RTO") cost allocation proceedings. *See Sw. Power Pool, Inc.*, 131 FERC ¶ 61,252, at PP 120-24 (2010) ("SPP Order") (finding Southwest Power Pool, Inc.'s ("SPP") proposed cost allocation proposal just and reasonable despite an intervenor's claim that, without allocating a portion of transmission upgrade costs to generators, "it becomes increasingly unlikely that cost causers and beneficiaries will pay the appropriate portion of the cost of transmission upgrades"), *order on reh'g*, 137 FERC ¶ 61,075 (2011). The fact that an LODF analysis may allocate a small portion of the costs of a BRP outside of the pricing zone where the BRP is located does not mean that 100% cost allocation to the pricing zone where the BRP is located is unjust and unreasonable. Moreover, as the Commission observed in Order No. 1000-B, Order No. 1000 itself does "not entirely eliminate[] opportunities for free ridership. . . . the Commission balanced many competing interests in determining how to best implement the requirements of Order No. 1000." Order No. 1000-B at P 55. The same balance is due here, given the analysis of current BRP cost allocation that results in an allocation of the vast majority of costs of BRPs accruing to the pricing zone in which the facility is located. The fact that an LODF or similar analysis may allocate a modicum of costs to other pricing zones does not mean that 100% local allocation of BRP costs is unjust and unreasonable.

³⁶ SPP Order at P 94.

³⁷ *Id.* at P 95.

should approve the proposed modifications to BRP cost allocation as just and reasonable and consistent with cost-causation precedent.

B. The Proposed BRP Cost Allocation Is Consistent with Order Nos. 1000, 1000-A, and 1000-B

The Filing Parties' proposed modifications to the cost allocation provisions for BRPs are also consistent with, and in fact necessitated by, Order Nos. 1000, 1000-A, and 1000-B. Given the local nature and benefits of BRPs, eliminating the allocation of BRP costs outside of the pricing zone where the BRP is located complies with the letter and the intent of Order No. 1000.

1. Federal Rights of First Refusal and Local Transmission Facilities

In Order No. 1000, the Commission ordered the removal of federal rights of first refusal from Commission-jurisdictional agreements and tariffs with respect to transmission facilities selected in a regional transmission plan for purposes of cost allocation.³⁸ In Order No. 1000-A, the Commission further clarified that federal rights of first refusal should be eliminated for projects subject to any regional cost allocation.³⁹

In mandating elimination of federal rights of first refusal, the Commission limited the applicability of its directive to "transmission facilities selected in the regional transmission plan for purposes of cost allocation,"⁴⁰ which the Commission defined as "transmission facilities that have been selected pursuant to a transmission planning region's Commission-approved regional transmission planning process for inclusion in a regional transmission plan for purposes of cost allocation *because they are more efficient or cost-effective solutions to regional transmission needs.*"⁴¹ The Commission distinguished such facilities from "local transmission facilities," which the Commission defined as "transmission facility[ies] located solely within a public utility transmission provider's retail distribution service territory or footprint that [are] not selected in the regional transmission plan for purposes of cost allocation."⁴² The Commission indicated that

³⁸ Order No. 1000 at P 313.

³⁹ Order No. 1000-A at PP 429-30.

⁴⁰ Order No. 1000 at PP 226, 318 (indicating that the "focus" of Order No. 1000 is "transmission facilities that are evaluated at the regional level and selected in a regional transmission plan for purposes of cost allocation").

⁴¹ *Id.* at P 63 (emphasis added).

⁴² *Id.*

incumbent transmission providers could retain a federal right of first refusal for local transmission facilities.⁴³

BRPs are the type of “local transmission facility” contemplated by Order Nos. 1000 and 1000-A. First, BRPs are transmission facilities that are planned and approved in MTEP because they address local reliability needs and aid a MISO Transmission Owner in meeting its state-imposed obligation to serve retail customers, and not necessarily because they are more efficient or cost-effective solutions to regional transmission needs. Additionally, as detailed above and in Ms. Curran’s testimony,⁴⁴ MISO’s LODF analysis demonstrates that the benefits of BRPs accrue primarily to the pricing zone in which the BRP is located, and the vast majority of BRPs are located entirely in one pricing zone.

Despite the fact that BRPs are primarily local in nature, as compared to MEPs and MVPs, Order No. 1000-A appears to place further limits on the ability of an incumbent transmission owner in a RTO like MISO to opt to construct a local transmission facility to address its reliability needs or state-imposed retail service obligations. While Order No. 1000 expressly indicates that the Commission “continues to permit an incumbent transmission provider to meet its reliability needs or service obligations by choosing to build new transmission facilities that are located solely within its retail distribution service territory or footprint and that are not submitted for regional cost allocation,”⁴⁵ Order No. 1000-A limits this protection by stating “that if *any* costs of a new transmission facility are allocated regionally or outside of a public utility transmission provider’s retail distribution service territory or footprint, then there can be no federal right of first refusal associated with such transmission facility, except as provided in this order.”⁴⁶ Accordingly, not only is the Filing Parties’ proposed 100% local allocation of BRP costs just and reasonable, and consistent with cost-causation precedent as discussed above, it is appropriate to ensure that public utility members of MISO, who are obligated to comply with mandatory reliability standards and state-imposed service obligations, have the option afforded to them in Order No. 1000 to retain a right to build a local transmission facility.⁴⁷

⁴³ Order No. 1000 at PP 318, 382; *see also* Order No. 1000-A at P 366 (“Nothing in Order No. 1000 prohibits an incumbent transmission provider from choosing to build new transmission facilities that are located solely within its retail distribution service territory or footprint and that are not selected for selection in a regional transmission plan for purposes of cost allocation.”).

⁴⁴ Exhibit No. MISO-1 (Curran Testimony) at 10-11.

⁴⁵ Order No. 1000 at P 262.

⁴⁶ Order No. 1000-A at P 430 (emphasis added).

⁴⁷ Order No. 1000 at P 262.

Compliance with mandatory reliability standards is a key responsibility of MISO and its Transmission Owners. The BRP category of transmission projects is specifically designed to ensure continued compliance with reliability standards. As Ms. Curran indicates in her testimony,⁴⁸ public safety is a fundamental reason behind the implementation of mandatory reliability standards that have the force of law and carry significant penalties for noncompliance. BRPs are designed to mitigate public safety risk, and therefore the importance of providing MISO Transmission Owners the option to mitigate risks by choosing to build local transmission facilities cannot be understated. Forcing MISO Transmission Owners to rely on nonincumbent transmission developers and a potentially lengthy competitive transmission developer selection process (not to mention, potentially protracted litigation brought by transmission developers that did not get selected in the MISO developer selection process) for local reliability projects poses an unreasonable risk to the reliability of the bulk power system and, by extension, to public safety. Thus, modifying cost allocation for BRPs as proposed in this filing is appropriate to provide the MISO Transmission Owners the ability to construct local transmission facilities without potentially running afoul of the Commission's clarifications in Order No. 1000-A,⁴⁹ particularly given that the proposed methodology is just and reasonable and consistent with the Commission's cost allocation precedent, as discussed above.

2. *Order No. 1000 Cost Allocation Principles*

In Order No. 1000, the Commission directed all public utility transmission providers to include in their Open Access Transmission Tariffs “a method, or set of methods, for allocating the costs of new transmission facilities selected in the regional transmission plan for purposes of cost allocation.”⁵⁰ The Commission further required that the cost allocation method(s) comply with six cost allocation principles articulated in the order. While BRPs do not qualify as “transmission facilities selected in the regional transmission plan for purposes of cost allocation, as a more efficient or cost-effective solution to regional transmission needs” and therefore the Order No. 1000 cost allocation principles arguably do not apply, MISO's proposed revisions to BRP cost allocation are consistent with the six Order No. 1000 cost allocation principles, as demonstrated below.

a. Regional Cost Allocation Principle No. 1

⁴⁸ Exhibit No. MISO-1 (Curran Testimony) at 9.

⁴⁹ Even when a MISO Transmission Owner proposes to construct a local reliability project as a BRP, MISO might identify as part of the MTEP process a broader MEP or MVP that would resolve the reliability issue and address other needs, in which case the MEP or MVP would be subject to the applicable cost allocation methodology and the developer of the project would be selected through MISO's Order No. 1000 developer selection process.

⁵⁰ Order No. 1000 at P 558; *see also id.* at PP 9, 482.

Regional Cost Allocation Principle No. 1 codifies judicial precedent requiring that costs be allocated in a manner that is “roughly commensurate” with benefits.⁵¹ Specifically, Order No. 1000 Regional Cost Allocation Principle No. 1 states that:

The cost of transmission facilities must be allocated to those within the transmission planning region that benefit from those facilities in a manner that is at least roughly commensurate with estimated benefits. In determining the beneficiaries of transmission facilities, a regional transmission planning process may consider benefits including, but not limited to, the extent to which transmission facilities, individually or in the aggregate, provide for maintaining reliability and sharing reserves, production cost savings and congestion relief, and/or meeting public policy requirements.⁵²

As discussed above, allocating 100% of the costs of BRPs to the pricing zone where the project is located satisfies the “roughly commensurate” standard because, as current BRP cost allocation indicates, the primary beneficiaries of BRPs are the entities located within the pricing zone where the project is located. Specifically, under the existing BRP cost sharing methodology, 80% of the cost shared BRPs have retained at least 75% of the project cost in the pricing zone where the project is located, demonstrating that a majority of the benefits of such BRPs also accrue to the pricing zone where the project is located. Thus, allocating 100% of the costs of BRPs to the local pricing zone (i.e., the zone in need of the reliability upgrade) is “roughly commensurate” with benefits and is just and reasonable and consistent with this principle.

b. Regional Cost Allocation Principle No. 2

Order No. 1000 Regional Cost Allocation Principle No. 2 states that “[t]hose that receive no benefit from transmission facilities, either at present or in a likely future scenario, must not be involuntarily allocated any of the costs of those transmission facilities.”⁵³ By allocating costs exclusively to the pricing zone where the project is located, the proposed BRP cost allocation methodology ensures that costs will not be allocated to entities that do not benefit.

c. Regional Cost Allocation Principle No. 3

Order No. 1000 Regional Cost Allocation Principle No. 3 states:

⁵¹ *E.g., Ill. Commerce Comm’n*, 576 F.3d at 477.

⁵² Order No. 1000 at P 586 (citation omitted).

⁵³ *Id.* at P 637.

If a benefit to cost threshold is used to determine which transmission facilities have sufficient net benefits to be selected in a regional transmission plan for the purpose of cost allocation, it must not be so high that transmission facilities with significant positive net benefits are excluded from cost allocation. A public utility transmission provider in a transmission planning region may choose to use such a threshold to account for uncertainty in the calculation of benefits and costs. If adopted, such a threshold may not include a ratio of benefits to costs that exceeds 1.25 unless the transmission planning region or public utility transmission provider justifies and the Commission approves a higher ratio.⁵⁴

The proposed BRP cost allocation methodology is consistent with this principle because it does not use a benefit to cost ratio to determine cost allocation.

d. Regional Cost Allocation Principle No. 4

Order No. 1000 Regional Cost Allocation Principle No. 4 states:

The allocation method for the cost of a transmission facility selected in a regional transmission plan must allocate costs solely within that transmission planning region unless another entity outside the region or another transmission planning region voluntarily agrees to assume a portion of those costs. However, the transmission planning process in the original region must identify consequences for other transmission planning regions, such as upgrades that may be required in another region and, if the original region agrees to bear costs associated with such upgrades, then the original region's cost allocation method or methods must include provisions for allocating the costs of the upgrades among the beneficiaries in the original region.⁵⁵

The proposed BRP cost allocation methodology complies with this principle because it allocates costs entirely to the pricing zone where the BRP is located.

e. Regional Cost Allocation Principle No. 5

Order No. 1000 Regional Cost Allocation Principle No. 5 states that “[t]he cost allocation method and data requirements for determining benefits and identifying beneficiaries for a transmission facility must be transparent with adequate documentation to allow a stakeholder to determine how they were applied to a proposed transmission facility.”⁵⁶ The proposed BRP cost

⁵⁴ *Id.* at P 646 (footnote omitted).

⁵⁵ *Id.* at P 657 (footnote omitted).

⁵⁶ *Id.* at P 668.

allocation methodology is fully transparent. Any proposed project is required to be reviewed and vetted through the Order No. 890-compliant MTEP process,⁵⁷ which provides for open and full stakeholder input, including input from state regulators. Both the project and cost allocation are discussed in this robust process. This open process promotes full transparency. Moreover, the BRP cost allocation methodology is fully transparent as it allocates costs based on the location of the BRP to all entities that are in the pricing zone where the project is located.

f. Regional Cost Allocation Principle No. 6

Order No. 1000 Regional Cost Allocation Principle No. 6 states:

A transmission planning region may choose to use a different cost allocation method for different types of transmission facilities in the regional transmission plan, such as transmission facilities needed for reliability, congestion relief, or to achieve Public Policy Requirements. Each cost allocation method must be set out clearly and explained in detail in the compliance filing for this rule.⁵⁸

MISO has adopted different cost allocation methodologies for different types of transmission facilities, consistent with this principle. Each cost allocation method and project type (including criteria for determining the project types) is set forth explicitly in the Tariff and described in MISO's Order No. 1000 compliance filing. As discussed above, MISO's cost allocation methodologies, including the revised BRP cost allocation methodology submitted in this filing, provide a continuum for cost allocation based on benefits, from BRPs on the local end of the spectrum to MVPs at the broadest regional end of the spectrum.

3. *The Proposed BRP Cost Allocation Will Not Enable Entities to Circumvent the Mandates of Order No. 1000*

Modifying BRP cost allocation in a manner that eliminates any allocation of costs outside of a pricing zone is not designed to, nor will it, circumvent the Order No. 1000 mandate to eliminate federal rights of first refusal for transmission facilities selected in the regional transmission plan for purposes of cost allocation as a more efficient or cost-effective solution to regional transmission needs. Instead, the proposed changes to cost allocation will accurately reflect the true nature of BRPs as local transmission facilities as that term is defined in Order No. 1000. MISO's existing planning process will guard against projects being classified as BRPs when a more efficient and cost-effective MVP or MEP is available.

⁵⁷ In its Order No. 1000 compliance filing submitted concurrently with this filing, MISO explains in detail how its MTEP process satisfies all of the relevant Order No. 890 principles, including the transparency principle.

⁵⁸ *Id.* at P 685 (footnote omitted).

Through its various RECB filings, MISO has established a hierarchy of transmission project types, with BRPs focused on the local end of the spectrum of Transmission Issues, MEPs focused on sub-regional and regional Transmission Issues, and MVPs focused on the regional end by resolving regional Transmission Issues in a more efficient and cost-effective manner.⁵⁹ In its planning process, MISO is required to seek transmission solutions that address multiple needs,⁶⁰ rather than developing individual solutions to each discrete need. The purpose of MISO's top-down planning process is to seek transmission solutions that more cost-effectively address multiple Transmission Issues, rather than developing individual solutions for each identified Transmission Issue.

Specifically, MISO is obligated in the course of the MTEP process to “seek out opportunities to coordinate or consolidate, where possible, individually defined transmission projects into more comprehensive cost-effective developments.”⁶¹ The “collaborative [MTEP] process is designed to ensure that the MTEP address Transmission Issues within the applicable planning horizon in the most efficient and cost effective manner, while giving consideration to the inputs from all stakeholders.”⁶² If a MVP or MEP will resolve multiple issues more efficiently and cost-effectively than individual BRPs, the regional solution will be pursued provided that it can be implemented within the timeframe needed to meet reliability requirements. In fact, under Attachment FF of the Tariff, projects that qualify as both BRPs and MVPs are considered MVPs and are subject to the MVP regional cost allocation methodology.⁶³ Also, as discussed above, if a BRP meets the criteria to be a MEP, under Attachment FF of the Tariff, the project will be considered a MEP.⁶⁴

⁵⁹ See Exhibit No. MISO-2 (Transmission Cost Allocation Hierarchy) (describing the MISO transmission project types).

⁶⁰ Tariff, Attachment FF, Section I.B.

⁶¹ *Id.*

⁶² *Id.*

⁶³ *Id.*, Attachment FF, Section II.C.2.c (MVP Criterion 3); *id.*, Attachment FF, Section II.C.4 (“Any transmission project that qualifies as a Multi-Value Project shall be classified as an MVP irrespective of whether such project is also a Baseline Reliability Project and/or Market Efficiency Project”).

⁶⁴ *Id.*, Attachment FF, Section III.A.2.h (“If the Transmission Provider determines that a project designated as a Market Efficiency Project also meets the criteria to be designated as a Baseline Reliability Project and/or a New Transmission Access Project, the cost of such project shall be allocated in accordance with the Market Efficiency Project allocation procedures”).

With the adoption of MVPs and recent changes to MISO's MEP methodology, MISO anticipates the likelihood that multiple local transmission reliability issues could be addressed through regional solutions that are subject to some level of regional cost allocation, as either a MEP or a MVP. As discussed in the MVP Filing, MVPs are specifically designed to, among other things, address Transmission Issues associated with projected violations of mandatory reliability standards.⁶⁵ Moreover, as Ms. Curran testifies, MISO is working with stakeholders to improve the MEP identification and evaluation study process that will better identify and quantify the economic benefits of transmission projects resulting in the identification of MEPs. As part of this updated MEP evaluation process, MISO will consider grouping facilities together to address common areas of congestion on the system.⁶⁶ MISO anticipates that between the study process improvement and cost allocation changes more MEPs may be selected in the MTEP than in the past, which also might lead to the displacement of the need for multiple BRPs.

In fact, MISO's recent experience with MVPs demonstrates this anticipated trend toward regional solutions. As Ms. Curran testifies, one example of the cost allocation hierarchy is a 2011 MTEP MVP portfolio that the MISO Board of Directors approved that resolved 650 reliability violations under 6,700 system conditions, among other benefits, and thus displaced the need for 23 future BRP upgrades.⁶⁷ MISO likewise expects that more MEPs will be approved following its recent reforms of the MEP process, potentially eliminating the need for other future BRPs.⁶⁸

Additionally, MISO's "bottom-up, top-down" regional planning model emphasizes regional solutions over local solutions. As Ms. Curran discusses,⁶⁹ in the MISO planning process, Transmission Owners identify reliability issues and propose potential solutions ("bottom-up"); however, MISO assesses transmission needs and possible solutions on a regional basis ("top-down"). While an individual Transmission Owner may propose a BRP to address a local reliability need, if MISO, as part of its top-down planning analysis, combines that BRP with other proposed facilities or identifies a totally new project to address the local reliability need plus provide regional benefits, the resulting project could evolve into a MEP or MVP and become subject to the competitive transmission developer selection process that MISO is proposing to comply with Order No. 1000.

The trend toward MEPs and MVPs and MISO's Order No. 890-compliant top-down planning process will guard against any attempt to use the BRP local cost allocation to escape the

⁶⁵ MVP Filing at 21 (citing Attachment FF § II.C.6).

⁶⁶ Exhibit No. MISO-1 (Curran Testimony) at 18-19.

⁶⁷ *Id.* at 17-18.

⁶⁸ *Id.* at 18-19.

⁶⁹ *Id.* at 3, 15-16.

competitive process that MISO is adopting in compliance with Order No. 1000. Allowing the proposed revisions to the BRP cost allocation methodology and the resulting preservation of existing construction rights and obligations for such facilities will not provide an avenue for any Transmission Owner to circumvent the competitive process and conflict with the spirit and intent of Order No. 1000. Accordingly, the Commission should accept the revisions to the BRP Tariff provisions proposed in this filing as just and reasonable and consistent with Order No. 1000.

IV. SUPPORTING DOCUMENTS

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

Tab A Redlined Version of the Tariff

Tab B Clean Version of the Tariff

Tab C Exhibit No. MISO-1 (Testimony of Jennifer K. Curran) & Exhibit No. MISO-2 (Transmission Cost Allocation Hierarchy)

V. PROPOSED EFFECTIVE DATE

The Filing Parties respectfully request that the proposed Tariff revisions be made effective with the first annual planning cycle, beginning on June 1, following the issuance of the Commission's order on the Order No. 1000 compliance filing.

VI. ADDITIONAL INFORMATION REQUIRED UNDER 18 C.F.R. § 35.13⁷⁰

A. Basis for Changes

See Part III above. No cost support is necessary for this filing, as no new costs are proposed.

⁷⁰ To the extent necessary, the Filing Parties request waiver of the requirement to provide the full information required by section 35.13. Granting this waiver and use of the abbreviated filing procedures set forth in 18 C.F.R. § 35.13(a)(iii) is appropriate because this filing does not change the overall level of costs recovered under the Tariff, but simply changes the method in which BRP costs are allocated. In similar instances, the Commission has granted waiver of section 35.13 when a filing changes the way cost are allocated, but does not result in a revenue requirement increase. *See Sw. Power Pool, Inc.*, 131 FERC ¶ 61,252, at P 108 (stating that the Commission makes a distinction between cost allocation and rates increase filings and that a cost allocation filing is not subject to the full requirements of section 35.13); *see also Midwest Indep. Transmission Sys. Operator, Inc.*, 131 FERC ¶ 61,174, at P 143 (2010) (stating that since the filing involves cost allocation and does not change revenue levels, “the myriad requirements of Part 35 are not relevant.”).

B. Effect on Rates

See Part III above. There is no change in the overall level of costs recovered under this proposal.

C. Requisite Agreements

Consistent with the Transmission Owners Agreement, a majority of the MISO Transmission Owners voted in favor of this filing.⁷¹

D. Specifically Assignable Facilities Installed or Modified

There are none.

⁷¹ See Transmission Owners Agreement, Appendix K, Articles II.E.2 and III.

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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VIII. NOTICE AND 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.

The Honorable Kimberly D. Bose

October 25, 2012

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IX. CONCLUSION

The Filing Parties respectfully requests that the Commission accept this filing as just and reasonable, effective as discussed above.

Sincerely,

/s/ Matthew R. Dorsett

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/s/ Daniel M. Malabonga

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Tab A

ATTACHMENT FF Transmission Expansion Planning Protocol

Version: 76.0.0 Effective: 12/31/99987/1/2012

ATTACHMENT FF

TRANSMISSION EXPANSION PLANNING PROTOCOL

I. Transmission Expansion Plan - Purpose and Scope: This Attachment FF describes the process to be used by the Transmission Provider to develop the Midwest ISO Transmission Expansion Plan (“MTEP”), subject to review and approval by the Transmission Provider Board. The provisions of this Attachment FF are consistent with the applicable provisions of Appendix B of the ISO Agreement and this Tariff. For purposes of this Attachment FF, all references to Transmission Owner(s) will include ITC(s). The costs incurred by the Transmission Provider in the performance of data collection, analyses and review, and in the development of the MTEP report, costs incurred under Section I.B of this Attachment FF, and costs incurred under Section I.C of this Attachment FF shall be recovered from all Transmission Customers under Schedule 10 of the Tariff.

A. Development of the MTEP: The Transmission Provider, working in collaboration with representatives of the Transmission Owners and the Planning Advisory Committee, shall develop the MTEP, consistent with Good Utility Practice and taking into consideration long-range planning horizons, as appropriate. The Transmission Provider shall develop the MTEP for expected use patterns and analyze the performance of the Transmission System in meeting both reliability needs and the needs of the competitive bulk power market, under a wide variety of contingency conditions. The MTEP will give full consideration to the needs of all Market Participants, will include consideration of demand-side options, and will identify expansions or

enhancements needed to support competition in bulk power markets and in maintaining reliability. This analysis and planning process shall integrate into the development of the MTEP among other things:

(i) the Transmission Issues identified from Facilities Studies carried out in connection with specific transmission service requests; (ii) Transmission Issues associated with generator interconnection service; (iii) the Transmission Issues, including proposed transmission projects, identified by the Transmission Owners in connection with their planning analyses in accordance with local planning process described in Section I.B.1.a to this Attachment FF and the coordination processes of Section I.B.1.b., or developed by Transmission Owners utilizing their own FERC-approved local transmission planning process described in Section I.B.2, as applicable, to provide reliable power supply to their connected load customers and to expand trading opportunities, better integrate the grid and alleviate congestion; (iv) the transmission planning obligations of a Transmission Owner, imposed by federal or state law(s) or regulatory authorities, which can no longer be performed solely by the Transmission Owner following transfer of functional control of its transmission facilities to the Transmission Provider; (v) plans and analyses developed by the Transmission Provider to provide for a reliable Transmission System and to expand trading opportunities, better integrate the grid and alleviate congestion; (vi) the identification, evaluation, and analysis of expansions to enable the Transmission System to fully support the simultaneous feasibility of all State 1A ARRs; (vii) the inputs provided by the Planning Advisory Committee; and (viii) the inputs, if any, provided by the state regulatory authorities having jurisdiction over any of the Transmission Owners and by the OMS.

1. Planning Cycle and Milestones: The ISO Agreement requires that a regional transmission plan be developed biennially or more frequently. A typical MTEP development cycle of 12 to 24 month duration is performed continuously. The development of the MTEP will follow specified process steps that are detailed, including process diagrams, in the Transmission Provider's Transmission Planning Business Practices Manual ("TPBPM"). The TPBPM shall be posted on the website of the Transmission Provider.

a. Planning Functions: The planning process includes the following functions which are described in detail in the TPBPM:

- i. Model Development;
- ii. Generator Interconnection Planning;
- iii. Transmission Service Planning;
- iv. Cyclical Regional Expansion Planning activities;
- v. Coordinated System Plans with other RTOs/regions;
- vi. System Support Resource ("SSR") Studies for unit de-commissioning;
- vii. Transmission-to-Transmission Interconnections;
- viii. Load Interconnections; and
- ix. Focus Studies. These are studies initiated during the cyclical baseline planning process that cannot be delayed until the next planning cycle (for example, NERC/FERC directives, or near-term critical operational issues).

Each of these planning functions may develop system expansions that are taken

into consideration in developing the entirety of the MTEP.

b. Planning Cycle: The regional planning process is performed through a continuous series of planning cycles, with each cycle typically addressing Transmission Issues through a rolling planning horizon. Each cycle commences with regional model development, and identification of potential expansions from the local planning processes of the Transmission Owners, and concludes with recommendations to the Transmission Provider Board of Directors of recommended solutions to identified Transmission Issues. Transmission Owner plans developed through local planning processes described in Section I.B.1.a are included in the beginning of each regional planning cycle as potential alternatives to local Transmission Issues identified by the Transmission Owners. The regional planning process evaluates, with stakeholder input throughout the cycle, the local plans of the Transmission Owners, as one input to the development of the regional plan. Key milestones in the typical MTEP development process are listed below and requirements and timelines for data submittal, review, and comment at each of these milestone points are described in the TPBPM:

- i. Model development;
- ii. Testing models against applicable planning criteria;
- iii. Development of possible solutions to identified Transmission Issues;
- iv. Selection of preferred solution;

- v. Determination of funding and cost responsibility; and
- vi. Monitoring progress on solution implementation.

The Transmission Provider shall address each of these milestones throughout the planning cycle through Sub-regional Planning Meetings, Planning Subcommittee and Planning Advisory Committee meetings.

2. Stakeholders Input in Planning Process: The Transmission Provider shall facilitate discussions with its Transmission Customers and other stakeholders, the Transmission Owners about the Transmission Issues and solutions involving both transferred and non-transferred facilities, as described in Section I.B.1 of this Attachment FF.

These discussions will take place at Sub-regional Planning Meetings and at regularly scheduled meetings of the Transmission Provider's Planning Subcommittee, at locations provided by the Transmission Provider and with communication capabilities for those participants unable to have in person representation at these meetings.

a. Planning Advisory Committee ("PAC"): The Planning Advisory Committee is a standing committee reporting to the Transmission Provider's Advisory Committee, and functions subject to the Stakeholder Governance Guide developed by the Stakeholder Governance Working Group, as approved by the Advisory Committee. The PAC is responsible for addressing planning policy issues of importance to stakeholders and within the responsibilities of the Transmission Provider. The PAC charter is maintained on the Transmission Provider's website.

b. Planning Subcommittee (“PS”): The Planning Subcommittee is a standing stakeholder-chaired subcommittee of the Planning Advisory Committee, and functions subject to the Stakeholder Governance Guide developed by the Stakeholder Governance Working Group, as approved by the Advisory Committee. Planning Subcommittee membership is open to interested parties, including, but not limited to: transmission delivery service and interconnection service customers, marketers, developers, Transmission Owners, state and federal regulatory staff, and other Market Participants and observers. The charter for the committee is developed by stakeholders and is maintained on the Transmission Provider’s website. The Transmission Provider will seek guidance from stakeholders through the Planning Subcommittee and/or the Planning Advisory Committee prior to the beginning of each new planning cycle. Guidance will include the scope of planning studies to be undertaken and the development of suitable models and assumptions to support such studies. The Transmission Provider will also seek guidance from stakeholders through the Planning Subcommittee and/or the Planning Advisory Committee prior to implementing changes or revisions to the scope, models, and assumptions during the planning cycle. The Planning Subcommittee and/or the Planning Advisory Committee may form working groups at the discretion of stakeholders to perform specific tasks supporting the planning processes, such as model development and detail review of study results and draft plan reports.

c. Sub-regional Planning Meetings (“SPMs”): The Transmission Provider shall utilize SPMs to provide opportunity for stakeholders to provide input to the planning process, and to carry out the tasks of coordinating transmission plans among the Transmission Owners. Input and planned coordination may occur through the use of existing sub-regional planning groups (“SPGs”) where they exist, or through the establishment of new sub-regional meeting forums. One or more SPMs will be used or established for each of the three regional Planning Sub-regions of the Transmission Provider. Planning Sub-regions shall be defined based upon the Transmission Provider Planning Sub-regions: West, Central, and East as defined in Attachment FF-3.

i) SPM Participants: Participants at an SPM will consist of representatives of the Transmission Owners operating within the associated Planning Sub-region that integrate their local planning processes with the regional process, and any parties interested in or impacted by the planning process. For those Transmission Owners engaged in local planning under their own FERC approved local planning processes, such Transmission Owners shall participate in the SPM in order to coordinate their planning activities.

Neighboring transmission-owning utilities and regulatory participants are eligible and encouraged to participate in the SPM to promote joint planning between the Transmission Provider and neighboring transmission systems.

ii) SPM Guidelines. The Sub-regional Planning Meeting participants shall:

(a) Make recommendations for a coordinated sub-regional Plan, after considering sub-regional and regional needs and alternatives, for the ensuing ten years, for all transmission facilities in the sub-region;

(b) Review and comment on proposed Transmission Owners plans identified in local planning processes described in Section I.B.1.a. of this Attachment FF, for additions and modifications to the sub-regional transmission system, as potential solutions to identify Transmission Issues and review the transmission plans developed by those Transmission Owners that have their own FERC-approved local planning process (described in Section I.B.2) to ensure coordination of the projects set forth in such plans with the potential regional planning solutions developed in the SPM process consistent with the requirements of Appendix B of the Transmission Owners' Agreement;

(c) Form technical study task forces as required to carry out the sub-regional planning responsibilities;

(d) Encourage non-Transmission Provider member participation to improve understanding by the SPM

participants, the Planning Subcommittee, and the Transmission Provider staff of facility changes outside the Transmission Provider Region to ensure the impact of such changes are considered in the planning studies;

(f) Promote stakeholder (i.e. regulators, environmental agencies, and load and generation developers) involvement in development of the sub-regional plans.

(g) Recommend to the Planning Subcommittee proposed sub-regional plans to be included in the MTEP.

In addition, the transmission projects developed by any Transmission Owner or Owners utilizing the provisions of their own FERC-approved local planning process shall be submitted for inclusion in the regional MTEP after being evaluated by the Transmission Provider in the regional evaluation of SPMs in accordance with Appendix B of the Transmission Owners' Agreement in determining the Transmission Provider's recommendation for inclusion in the MTEP.

(h) Reflect, as desired, minority opinions to the Transmission Provider or the Planning Subcommittee.

i) SPM Frequency, Location and Agenda:

SPMs should meet at least two times per year or as otherwise provided for in the TPBPM, to provide

input in the planning process, review plans and recommend changes, if any, needed to address stakeholder needs and to coordinate proposed plans. Meetings involving CEII or confidential materials shall be handled under Section I.A.12 of this Attachment FF.

3. Meeting Notifications: Notice shall be provided by way of email exploder lists distribution by the Transmission Provider of all SPMs, Planning Subcommittee, and Planning Advisory Committee meetings. These email exploder lists are established and maintained by the Transmission Provider and it is the responsibility of stakeholders to have registered as described on the Transmission Provider website. Meeting dates, times, locations, and materials will also be posted on the meeting calendar page of the Transmission Provider's website. Meeting notification guidelines are set forth in the stakeholder developed Stakeholder Governance Guidelines.
4. Other Meeting Schedules: Planning Subcommittee meetings are regularly scheduled meetings that occur no less than bimonthly. Annual meeting schedules and objectives are developed at the December meeting each year for the subsequent year. Planning Advisory Committee meetings are scheduled as per the PAC Charter.
5. Planning Criteria: The Transmission Provider shall evaluate the system to Transmission Issues in a manner consistent with the ISO Agreement and this Attachment FF. Projects included in the MTEP may be based upon any

applicable planning criteria, including accepted NERC reliability standards and reliability standards adopted by Regional Entities, local planning reliability or economic planning criteria of the Transmission Owner, or required by State or local authorities, and any economic or other planning criteria or metrics defined in this Attachment FF. Transmission Owners are required to annually provide updated copies of local planning criteria for posting on the Transmission Provider's website.

6. Planning Analysis Methods: Planning analyses performed by the Transmission Provider will test the Transmission System under a wide variety of conditions as described in Section II and using standard industry applications to model steady state power flow, angular and voltage stability, short-circuit, and economic parameters, as determined appropriate by the Transmission Provider to be compliant with applicable criteria and this Tariff.

7. Planning Models: The Transmission Provider shall collaborate with Transmission Owners, other transmission providers, Transmission Customers, and other stakeholders to develop appropriate planning models that reflect expected system conditions for the planning horizon. The planning models shall reflect the projected Load growth of existing Network Customers and other transmission service and interconnection commitments. The models shall include any transmission projects identified in Service Agreements or Interconnection Agreements that are entered into in association with requests for transmission delivery service or interconnection service, as determined in Facilities Studies associated with such requests. Load forecasts applied to models will consider the

forecast Load of Network Customers reported to the Transmission Provider in accordance with the requirements of Module B and Module E of this Tariff, and the Business Practices Manuals of the Transmission Provider. Models will be posted on an FTP site maintained by the Transmission Provider and accessible to stakeholders with security measures as provided for in the TPBPM. The Transmission Provider will provide an opportunity for stakeholders to review and comment on the posted models before commencing planning studies.

The schedules for such reviews are maintained in the TPBPM. Stakeholders shall be afforded opportunities to provide input on Load projections from Tariff reporting requirements or from Transmission Owner forecasts. After the base line forecast and model are established, the Transmission Provider and/or Transmission Owners may adjust the forecast as necessary on an ad hoc basis throughout the planning year to address customer requests for new Load interconnections arising from on-going dialogue with existing and prospective customers.

8. Planning Assumptions: Each MTEP report shall list in detail the planning assumptions upon which the analyses are based. In general, planning analyses will be based on the following:

a. Planning Horizons: The MTEP will identify Transmission Issues for a minimum planning horizon of five years and a maximum planning horizon of twenty years.

b. Load: Load demand will generally be modeled by the Transmission Provider as the most probable (“50/50”) coincident Load

projection for each Transmission Owner's service territory, for the season under study. Specific studies may model alternative Load probabilities or peak Load for areas within a Transmission Owner's service territory as dictated by operational and planning experience and/or local planning criteria, but in any case shall be treated consistently in the planning for native Load and transmission access requests.

c. Generation: Planning models of five years or longer will model generation, taking into consideration applicable planning reserve requirements, that are: (i) existing and expected to be in existence in the planning horizon; (ii) not existing but with executed interconnection agreements; and (iii) additional generation as determined with stakeholder input, as necessary to adequately and efficiently meet demand forecasted through the planning horizon and to facilitate compliance with statutory or regulatory mandates. The Transmission Provider shall apply a scenario analysis to determine alternative future generation portfolio possibilities. Generation portfolio development for planning model purposes will be developed with input from the Planning Advisory Committee and its subcommittees, working groups, and task forces. Point-To-Point Transmission Service and Network Integration Transmission Service customers will have an opportunity to guide new generation portfolio development that is reflective of customer future resource plans.

d. Demand Response Resources: Planning solutions will be based upon the best available information regarding the expected amount and

location of Load that can be effectively and efficiently reduced by demand response or energy efficiency programs, as well as the amount of behind-the-meter generation that can reliably be expected to produce Energy that could impact planning solutions. The Transmission Provider shall perform and report on sensitivity analyses that indicate the effectiveness of potential demand response as alternative planning solutions, to the extent that appropriate methodology for such analyses is developed with stakeholders and documented in the TPBPM.

e. Topology: Each planning study will use the best known topology based upon the most recently approved MTEP. Planning studies will include all projects approved by the Transmission Provider Board, and shall identify, as appropriate, and as detailed in the TPBPM, any system needs already identified in the most recent approved MTEP.

9. Evaluation of Alternatives: When the planning analyses, based on the foregoing principles, identifies Transmission Issues, the Transmission Provider will consider the inputs from stakeholders derived from the SPM processes, the inputs from the Planning Subcommittee and the Planning Advisory Committee, the plans of any Transmission Owner with its own FERC-approved local planning process, and the MTEP aggregate system analyses against applicable planning criteria, in determining the solutions to be included in the MTEP and recommended to the Transmission Provider Board for implementation.

10. Facility Design: Facility design and system configuration (such as conductor sizes, transformer design, bus configuration, protection schemes) are

selected by the Transmission Owner, and must be consistently applied by the Transmission Owner for comparable system service conditions. Comparable application of system design does not preclude the consideration or selection of advanced or alternative transmission technology.

11. Status of Recommended Facilities: Upon solicitation from the Transmission Provider, the responsible Transmission Owner shall report the status of all projects recommended for implementation in the MTEP. The Transmission Provider shall report such progress to the Transmission Provider Board on a quarterly basis, or as otherwise directed by the Transmission Provider Board.

12. Treatment of Critical Energy Infrastructure Information (“CEII”) and Confidential Data: The Transmission Provider shall utilize a Non-Disclosure and Confidentiality Agreement (“NDA”) to address sharing of CEII transmission planning information. FTP sites containing such information will require such agreements to be executed in order to obtain access to those sites. Stakeholder meetings at which CEII may be available shall be noticed to email exploders and shall require execution of NDAs prior to participation in such meetings. In the alternative, such meetings will be structured to have separate discussion of issues involving CEII data only with participants that agree to execute the NDA. Confidential information related to economic (e.g., congestion) studies, as well as CEII, is clearly sensitive information which must remain confidential. The Transmission Provider shall use generic, publicly available, cost information from industry sources in the economic studies to prevent the accidental release of confidential information. This approach will promote an open planning process

because the results of economic studies are available to all interested parties.

13. Resolution of Stakeholder Input: The Transmission Provider shall solicit input and comments from all stakeholders, including Transmission Owners, during and after stakeholder planning meetings, and will use reasonable efforts to reply to comments that the Transmission Provider does not elect to implement, together with reasons for such actions. The Transmission Provider shall develop a process for the documentation and resolution of stakeholder issues raised in the planning process, including but not limited to issues related to planning criteria.

14. Dispute resolution: Consistent with Attachment HH of this Tariff and Appendix D to the ISO Agreement, the Transmission Provider shall resolve disputes concerning MTEP issues. The first step will be for designated representatives of the affected parties to work together to resolve the relevant issues in a manner that is acceptable to all parties. If that step is unsuccessful, each affected party shall designate an officer who shall review disputes involving them that their designated representatives are unable to resolve. The applicable officers of the parties involved in such dispute shall work together to resolve the disputes so referred in a manner that meets the interests of such parties, either until such agreement is reached, or until an impasse is declared by any party to such dispute. If such officers are unable to satisfactorily resolve the issues, the matter shall be referred to mediation, in accordance with the procedures described in Appendix D to the ISO Agreement. Parties that are not satisfied with the dispute resolution procedures may only file a complaint with the Commission during the negotiation or mediation steps.

If a matter remains unresolved, the affected parties may pursue arbitration pursuant to Appendix D of the ISO Agreement.

B. Project Coordination: In the course of the MTEP process, the Transmission Provider shall seek out opportunities to coordinate or consolidate, where possible, individually defined transmission projects into more comprehensive cost-effective developments subject to the limitations imposed by prior commitments and lead-time constraints. The Transmission Provider shall coordinate with Transmission Owners, and shall consider the input from the SPMs, Planning Subcommittee, and Planning Advisory Committee to develop expansion plans to meet the needs of the system. This multi-party collaborative process will allow for all projects with regional and inter-regional impact to be analyzed for their combined effects on the Transmission System. Moreover, this collaborative process is designed to ensure that the MTEP address Transmission Issues within the applicable planning horizon in the most efficient and cost effective manner, while giving consideration to the inputs from all stakeholders. In addition to the requirements of this Attachment FF, there may be state or local procedural requirements applicable to the planning or siting of transmission facilities by the Transmission Owners. A current list of those requirements can be found on the Transmission Provider's website.

1. Transmission Owners Electing to Integrate their Local Planning Processes into the Transmission Provider's Processes: Some Transmission Owners have agreed to integrate internal planning process with the Transmission Provider's open and coordinated planning processes for all of their transmission facilities to comply with Order 890 Planning Principles instead of filing a separate Attachment K. Through this election, the local planning for all transmission

facilities of these Transmission Owners, regardless of whether the facilities are ultimately transferred to the functional control of the Transmission Provider, shall be integrated with and included in the regional planning processes of the Transmission Provider. These regional planning processes, as provided for in this Attachment FF and in additional detail in the TPBPM, ensure that the planning decisions for all such facilities are made in an open and transparent environment. This planning environment provides opportunity for input from, and review by, stakeholders of the Open Access Transmission Tariff services throughout the planning process, and is in accordance with the Planning Principles of the Order 890 Final Rule. The open and transparent planning provisions of this Attachment FF shall not preclude interaction between stakeholders and Transmission Owners prior to the submittal of proposed projects to the regional planning process.

Transmission Owners integrating local planning processes into the regional planning processes are listed in Attachment FF-4. Such Transmission Owners shall be responsible for providing the Transmission Provider with sufficient information regarding all planning activities to enable the Transmission Provider to adequately review and incorporate all of the Transmission Owner's transmission facilities into the regional planning process of the Transmission Provider, as described in Sections I.B.1.a. and I.B.1.b. of this Attachment FF.

The foregoing Transmission Owners will utilize the planning stakeholder forums of the Transmission Provider to demonstrate the need for, identify the alternatives to, and report the status of non-transferred transmission facilities using the same open, transparent and coordinated planning process provided by the Transmission

Provider for transferred facilities as described in this Attachment FF.

a. Local Planning Processes of Transmission Owners: In accordance with the ISO Agreement, each Transmission Owner engages in local system planning in order to carry out its responsibility for meeting its respective transmission needs in collaboration with the Transmission Provider subject to the requirements of applicable state law or regulatory authority. In meeting its responsibilities under the ISO Agreement, the Transmission Owners may, as appropriate, develop and propose plans involving modifications to any of the Transmission Owner's transmission facilities which are part of the Transmission System. The Transmission Owners shall include the following specific local planning steps in order to develop plans for potential inclusion in the regional plan, in accordance with the annual regional planning process as described in Section I.B.1.b. of this Attachment FF, and in accordance with the regional planning principles of Section I.A of this Attachment. In addition to the local planning steps below, Transmission Owners shall adhere to any applicable state or local regulatory planning processes.

- i. Define local study area and study horizon;
- ii. Develop appropriate power system models;
 - a) Utilize existing NERC or Transmission Provider cases to model external systems;
 - b) Insert detailed model of Transmission Owner system if required;

- c) Insert updated detailed models of neighboring system models if required; and
 - d) Verify model topology and generation.
- iii. Update loads (spatial and magnitude) in study area;
 - a) Review historical MW and MVAR data to develop growth trends;
 - b) Obtain Load forecasts from customers in study area; and
 - c) Obtain input from local distribution planners in the study area.
- iv. Perform contingency analysis using applicable Transmission Owner planning criteria;
- v. Identify any violations to planning criteria for each of study period;
- vi. Develop alternative solutions to the criteria violations and test against the planning criteria;
 - a) Obtain cost estimates for each alternative and perform economic analyses; and
 - b) Determine non-cost attributes of each alternative such as operating flexibility, robustness, among others.
- vii. Select alternative based on cost and non-cost attributes;
- viii. Submit proposed solution and list of alternatives and assumptions to the Transmission Provider;

- ix. Participate in stakeholder evaluations and discussions as a part of annual regional plan development process;
- x. Perform additional analysis as required based on feedback from stakeholder groups (SPM/PS) in the regional planning process;
- xi. Submit results of additional analysis (if performed) to the Transmission Provider for further discussion with stakeholders (SPM/PS);
- xii. Consider regional planning process results, including stakeholder feedback on needs, proposed solutions, and alternatives, in determining whether or not to proceed with implementation of Transmission Owner proposed expansions; and
- xiii. Post the planning criteria and assumptions, and power flow models used in development of each Transmission Owner's current local planning proposal in accordance with Section I.B.1.b below. To the extent that the Transmission Owner uses the Midwest ISO MTEP models in developing its list of newly proposed projects, the Transmission Owner shall indicate as per Section I.B.1.b. below, the associated MTEP model used.

The Transmission Provider will maintain a link to applicable MTEP models on its website together with instructions for accessing such models consistent with CEII criteria and suitable non-disclosure agreements. In the event that the Transmission

Owner applies its own power flow models in developing its proposed local plans, the Transmission Owner shall provide such models to the Transmission Provider for posting, or shall provide to the Transmission Provider a link to the location of such Transmission Owner model(s) and to instructions for accessing such models consistent with the Transmission Owner's CEII and non-disclosure requirements. Transmission Provider shall post on its website links to such postings on Transmission Owner's website.

b. Integration of Local Planning Processes of Transmission Owners: Transmission Owners listed on Attachment FF-4 as integrating local planning processes with those of the Transmission Provider, shall integrate proposals for transmission expansions into the regional planning process as follows. Each Transmission Owner shall submit its proposals for transmission plans to the Transmission Provider prior to the start of each regional planning cycle. Each Transmission Owner's local plan, which consists of a list of proposed projects, shall be made available on the Transmission Provider's website for review by the PAC, the PS, and the SPM participants, subject to CEII and the confidentiality provisions in this Attachment FF. Such local plans shall be posted by September 15 each year in order to provide time for written comments by stakeholders. In addition to the list of proposed projects, each Transmission Owner submitting newly proposed projects by September 15 in any MTEP annual

cycle shall provide to the Transmission Provider by June 1 of the same year identification of any Midwest ISO base power flow model used by the Transmission Owner in support of the identification of the list of proposed projects to be subsequently posted in September, or in the event that the Transmission Owner uses a non-Midwest ISO base power flow model in support of the identification of the list of proposed projects the Transmission Owner shall provide to the Transmission Provider such base power flow model or a link to the power flow model and assumptions used.

Each Transmission Owner's local planning model and associated assumptions shall be accessible on or through a link on the Transmission Provider's website for review, subject to CEII and the confidentiality provisions in this Attachment FF and consistent with section I.B.1.a. In the event that the Transmission Owner uses a non-Midwest ISO base power flow model, the Transmission Owner shall provide for posting updates if there are significant changes in the model by July 15, August 15, and September 15 of each year. Comments by stakeholders on the local planning models and assumptions that are provided to the Transmission Provider SPM Planning Contact by July 1, or August 1 or September 1 with respect to updates, shall be forwarded to the applicable Transmission Owner by July 8, August 8, or September 8, respectively. The Transmission Provider shall address any unresolved stakeholder issues through the SPM process.

Each Transmission Owner shall also provide to the Transmission Provider by June 1 of each year any updates to the posted transmission planning criteria, or a notification that the posted documents have not changed. In the event a Transmission Owner has additional significant updates to the posted transmission planning criteria, the Transmission Owner shall provide such updates for posting by July 15, August 15, and September 15 of each year.

The Transmission Provider shall post on its website the lists of newly proposed projects, criteria and assumptions, and supporting base power flow models or links to supporting base power flow models, as provided by the Transmission Owners. Initial comments by stakeholders to the proposed projects should be provided to the Transmission Provider SPM Planning Contact 45 days after the posting of local plans otherwise comments may be made pursuant to Section I.A.2.c.ii. The Transmission Provider SPM Planning Contact shall be identified on the Transmission Provider's web site page devoted to Expansion Planning. The Transmission Provider shall provide to the applicable Transmission Owner within five working days of receipt, a copy of all stakeholder comments received within 45 days of the posted information regarding Transmission Owner planning criteria and assumptions, models applied, and list of proposed projects. The Transmission Provider shall address any unresolved stakeholder issues through the SPM process. Each Transmission Owner must participate in SPMs in the respective Planning

sub-region as indicated in the Transmission Providers meeting schedule. Such SPMs shall provide input to and review of the results of the needs assessments and adequacy of plans proposed by the Transmission Owners, or by stakeholders to the planning process, or by the Transmission Provider, to best meet the needs of the sub-region.

Transmission Owners identified in Attachment FF-4, must submit to the Transmission Provider, on an annual basis and at a time to be determined by the Transmission Provider, which shall be prior to the beginning of each regional planning cycle, all proposed transmission plans for both transferred and non-transferred transmission facilities. The submitted projects of such Transmission Owners shall be considered potential alternatives to system needs identified, and as such must be submitted when initially identified as a potential system solution, in order to permit the evaluation of such projects along with other potential alternatives that may be proposed by stakeholders or the Transmission Provider, in the SPM processes. Such alternatives may include transmission, generation, and demand-side resources. The Transmission Provider will review and evaluate such alternatives on a comparable basis and select the most appropriate solution. Comparability includes the ability of the Transmission Provider to obtain contractual assurances that the selected solution will be implemented by the required in-service dates. Contractual commitments associated with transmission solutions to be constructed by Midwest ISO Transmission Owners are provided for by the ISO

Agreement.

Contractual commitments associated with generation solutions require that a generator interconnection agreement be filed with the Commission pursuant to Attachment X of this Tariff by the time the alternative transmission solution would need to be committed to in order to ensure installation on the required need date. Contractual commitments associated with demand-side resource solutions require demonstration to the Transmission Provider of an executed contract between LSE and End-Use Customers. Such demand-side contracts must be in place by the time that the transmission solution would otherwise need to be committed to in order to ensure a timely solution to the identified planning need, and must be of a sufficient duration such that a reliable solution can be assured through the planning horizon. Notwithstanding the provisions of Section VII of the ISO Agreement regarding the Transmission Provider review of Transmission Owner plans, no proposed project of a Transmission Owner that has elected to integrate their local planning processes into the Transmission Provider's processes, as indicated on Attachment FF-4, shall be recommended in the MTEP for implementation until completion of the annual needs analysis carried out in the annual MTEP cycle, as described in Section I. A. of this Attachment FF, except as provided for in Section I.B.1.c. of this Attachment FF.

c. Out-of-Cycle Review of Transmission Owner Plans: In the event that a Transmission Owner determines that system conditions warrant the

urgent development of system enhancements that would be jeopardized unless the Transmission Provider performs an expedited review of the impacts of the project, Transmission Provider shall use a streamlined approval process for reviewing and approving projects proposed by the Transmission Owners so that decisions will be provided to the Owner within thirty (30) days of the projects submittal to the Midwest ISO unless a longer review period is mutually agreed upon.

2. Transmission Owners Filing Separate Attachment K: Some Transmission Owners as listed on the last page of Attachment FF-4 have developed individual open, local planning processes for their facilities, that comply with the Planning Principles of the Order 890 Final Rule. These Transmission Owners have an Attachment K that describes how the Transmission Owner will comply with the Order No. 890 Planning Principles for all transmission facilities that they plan for, regardless of whether those facilities are ultimately transferred to the functional control of the Transmission Provider. With the exception of Sections I.B.1.a and I.B.1.b., the provisions of this Attachment FF remain applicable to all Transmission Owners notwithstanding the filing by any Transmission Owner of an Attachment K pursuant to the Order 890 Final Rule.

C. Joint Regional Planning Coordination: The MTEP shall be developed in accordance with the principles of interregional coordination through collaboration with representatives from adjacent transmission providers, their designated regional planning organizations, or regional transmission organizations, as provided for in this Attachment FF, or as otherwise provided for in existing joint agreements between the Transmission

Provider and other regional entities that engage in planning activities. The Transmission Provider has joint operating and coordination agreements with MAPP COR, as contractor for Mid-Continent Area Power Pool (“MAPP”), the PJM Interconnection (“PJM”), Southwest Power Pool (“SPP”), Tennessee Valley Authority (“TVA”), and Manitoba Hydro (Manitoba). Because TVA is non-jurisdictional, that agreement has not been submitted for Commission approval, but is available on the Transmission Provider’s public website.

1. Initial Contact: The Transmission Provider will initiate a meeting with representatives of adjacent transmission providers, their designated regional planning organizations, or regional transmission organizations with which existing joint agreements are not already established with the Transmission Provider (“Regional Planning Coordination Entities” or “RPCEs”), in order to establish a Joint Planning Committee.
2. Joint Planning Committee. The Transmission Provider shall offer to form a Joint Planning Committee (“JPC”) with the RPCE. The JPC shall be comprised of representatives of the Transmission Provider and the RPCE in numbers and functions to be identified from time to time. The JPC may combine with or participate in similarly established joint planning committees amongst multiple RPCEs or established under joint agreements to which the Transmission Provider is a signatory, for the purpose of providing for broader and more effective inter-regional planning coordination. The JPC shall have a Chairman. The Chairman shall be responsible for: the scheduling of meetings; the preparation of agendas for meetings; the production of minutes of meetings; and for chairing JPC

meetings. The Chairmanship shall rotate amongst the Transmission Provider and the RPCEs on a mutually agreed to schedule, with each party responsible for the Chairmanship for no more than one planning study cycle in succession. The JPC shall coordinate planning of the systems of the Transmission Provider and the RPCEs, including the following:

- a. Coordinate the development of common power system analysis models to perform coordinated system planning studies including power flow analyses and stability analyses. For studies of interconnections in close electrical proximity at the boundaries among the systems of the Transmission Provider and the RPCEs the JPC or its designated working group will coordinate the performance of a detailed review of the appropriateness of applicable power system models.
- b. Conduct, on a regular basis, a Coordinated Regional Transmission Planning Study (CRTPS), as set forth in Section 8.3.4.
- c. Coordinate planning activities under this Section 8, including the exchange of data and developing necessary report and study protocols.
- d. Maintain an Internet site and e-mail or other electronic lists for the communication of information related to the coordinated planning process. Such sites and lists may be integrated with those existing for the purpose of communicating the open and transparent planning processes of the Transmission Provider.
- e. Meet at least semi-annually to review and coordinate transmission planning activities.

f. Establish working groups as necessary to address specific issues, such as the review and development of the regional plans of the RPCE and the Transmission Provider, and localized seams issues.

g. Establish a schedule for the rotation of responsibility for data management, coordination of analysis activities, report preparation, and other activities.

3. Data and Information Exchange. The Transmission Provider shall make available to each RPCE the following planning data and information. Unless otherwise indicated, such data and information shall be provided annually. The Transmission Provider shall provide such data in accordance with the applicable CEII policy, and maintain data and information received from each RPCE in accordance with their applicable confidentiality policies.

a. Data required for the development of power flow cases, and stability cases, incorporating up to a ten year load forecasts as may be requested, including all critical assumptions that are used in the development of these cases.

b. Fully detailed planning models (up to the next ten (10) years as requested) on an annual basis and updates as necessary to perform coordinated studies that reflect system enhancement changes or other changes.

c. The regional plan documents, any long-term or short-term reliability assessment documents, and any operating assessment reports produced by the Transmission Provider and the RPCE.

- d. The status of expansion studies, system impact studies and generation interconnection studies, such that the Transmission Provider and the RPCE have knowledge that a commitment has been made to a system enhancement as a result of any such studies.
- e. Transmission system maps for the Transmission Provider and the RPCE bulk transmission systems and lower voltage transmission system maps that are relevant to the coordination of planning between or among the systems.
- f. Contingency lists for use in load flow and stability analyses, including lists of all contingency events required by applicable NERC or Regional Entity planning standards, as well as breaker diagrams for the portions of the Transmission Provider and the RPCE transmission systems that are relevant to the coordination of planning between or among the systems. Breaker diagrams to be provided on an as requested basis.
- g. The timing of each planned enhancement, including estimated completion dates, and indications of the likelihood that a system enhancement will be completed and whether the system enhancement should be included in system expansion studies, system impact studies and generation interconnection studies, and as requested the status of related applications for regulatory approval. This information shall be provided at the completion of each planning cycle of the Transmission Provider, and more frequently as necessary to indicate changes in status that may be important to the RPCE system.

h. Quarterly identification of interconnection requests that have been received and any long-term firm transmission services that have been approved, that may impact the operation of the Transmission Provider or the RPCE system.

i. Quarterly, the status of all interconnection requests that have been identified.

j. Information regarding long-term firm transmission services on all interfaces relevant to the coordination of planning between or among the systems.

k. Load flow data initially will be exchanged in PSS/E format. To the extent practical, the maintenance and exchange of power system modeling data will be implemented through databases. When feasible, transmission maps and breaker diagrams will be provided in an electronic format agreed upon by the Transmission Provider and the RPCE. Formats for the exchange of other data will be agreed upon by the Transmission Provider and the RPCE.

4. Coordinated System Planning. The Transmission Provider shall agree to coordinate with the RPCEs studies required to assure the reliable, efficient, and effective operation of the transmission system. Results of such coordinated studies will be included in the Coordinated System Plan. The Transmission Provider shall agree to conduct with the RPCEs such coordinated planning as set forth below

a. Single Entity Planning. The Transmission Provider shall engage in

such transmission planning activities, including expansion plans, system impact studies, and generator interconnection studies, as necessary to fulfill its obligations under the Tariff. Such planning shall conform to applicable reliability requirements of NERC, applicable regional reliability councils, and any successor organizations thereto.

Such planning shall also conform to any and all applicable requirements of Federal or State regulatory authorities. The Transmission Provider will prepare a regional transmission planning report that documents the procedures, methodologies, and business rules utilized in preparing and completing the report. The Transmission Provider shall agree to share the transmission planning reports and assessments with each RPCE, as well as any information that arises in the performance of its individual planning activities as is necessary or appropriate for effective coordination among the Transmission Provider and the RPCEs on an ongoing basis. The Transmission Provider shall provide such information to the RPCEs in accordance with the applicable CEII policy and shall maintain such information received from the RPCEs in accordance with their applicable confidentiality policies.

b. Analysis of Interconnection Requests. In accordance with the procedures under which the Transmission Provider provides interconnection service, the Transmission Provider will agree to coordinate with each RPCE the conduct of any studies required in determining the impact of a request for generator or merchant transmission

interconnection. Results of such coordinated studies will be included in the impacts reported to the interconnection customers as appropriate.

Coordination of studies shall include the following:

- i. When the Transmission Provider receives a request under its interconnection procedures for interconnection, it will determine whether the interconnection potentially impacts the system of a RPCE. In that event, the Transmission Provider will notify the RPCE and convey the information provided in the interconnection queue posting. The Transmission Provider will provide the study agreement to the interconnection customer in accordance with applicable procedures.
- ii. If the RPCE determines that it may be materially impacted by an interconnection on the Transmission Provider System, the RPCE may request participation in the applicable interconnection studies. The Transmission Provider will coordinate with the RPCE with respect to the nature of studies to be performed to test the impacts of the interconnection on the RPCE System, and who will perform the studies. The Transmission Provider will strive to minimize the costs associated with the coordinated study process undertaken by agreement with the RPCE.
- iii. Any coordinated studies associated with requests for

interconnection to the Transmission Provider's system will be performed in accordance with the study timeline requirements and scope of the applicable generation interconnection procedures of the Transmission Provider.

- iv. The RPCE may participate in the coordinated study either by taking responsibility for performance of studies of its system, if deemed reasonable by the Transmission Provider, or by providing input to the studies to be performed by the Transmission Provider. The study cost estimates indicated in the study agreement between the Transmission Provider and the interconnection customer, will reflect the costs, and the associated roles of the study participants including the RPCE. The Transmission Provider will review the cost estimates and scope submitted by all participants for reasonableness, based on expected levels of participation, and responsibilities in the study. If the RPCE agrees to perform any aspects of the study, the RPCE must comply with the timelines and schedule of the Transmission Provider's interconnection procedures.
- v. The Transmission Provider will collect from the interconnection customer the costs incurred by the RPCE associated with the performance of such studies and forward collected amounts, no later than thirty (30) days

after receipt thereof, to the RPCE. Upon the reasonable request of the RPCE, the Transmission Provider will make their books and records available to the requestor pertaining to such requests for collection and receipt of collected amounts.

- vi. The Transmission Provider will report the combined list of any transmission infrastructure improvements on either the RPCE and/or the Transmission Provider's system required as a result of the proposed interconnection.
- vii. Construction and cost responsibility associated with any transmission infrastructure improvements required as a result of the proposed interconnection shall be accomplished under the terms of the applicable OATT, Transmission Service Guidelines, controlling agreements, and consistent with applicable Federal or State regulatory policy and applicable law.
- viii. Each transmission provider will maintain separate interconnection queues. The JPC will maintain a composite listing of interconnection requests for all interconnection projects that have been identified as potentially impacting the systems of the Transmission Provider and coordinating RPCEs. The JPC will post this listing on the Internet site maintained for the

communication of information related to the coordinated system planning process.

c. Analysis of Long-Term Firm Transmission Service Requests. In accordance with applicable procedures under which the Transmission Provider provides long-term firm transmission service, the Transmission Provider will coordinate the conduct of any studies required to determine the impact of a request for such service. Results of such coordinated studies will be included in the impacts reported to the transmission service customers as appropriate. Coordination of studies will include the following:

- i. The Transmission Provider will coordinate the calculation of ATC values associated with the service, based on contingencies on their systems that may be impacted by the granting of the service.
- ii. When the Transmission Provider receives a request for long-term firm transmission service, it will determine whether the request potentially impacts the system of the RPCE. If the Transmission Provider determines that the RPCE system is potentially impacted, and that the RPCE would not receive a transmission service request to complete the service path, the transmission provider will notify the RPCE and convey the information provided in the posting.

- iii. If the RPCE determines that its system may be materially impacted by granting the service, it may contact the Transmission Provider and request participation in the applicable studies. The Transmission Provider will coordinate with the RPCE with respect to the nature of studies to be performed to test the impacts of the requested service on the RPCE system, and will strive to minimize the costs associated with the coordinated study process. The JPC will develop screening procedures to assist in the identification of service requests that may impact systems of the JPC members other than the transmission provider receiving the request.
- iv. Any coordinated studies for request on the transmission Provider's system will be performed in accordance with the study timeline and scope requirements of the applicable transmission service procedures of the Transmission Provider.
- v. The RPCE may participate in the coordinated study either by taking responsibility for performance of studies of its system, if deemed reasonable by the Transmission Provider or by providing input to the studies to be performed by the Transmission Provider. The study cost estimates indicated in the study agreement between the Transmission Provider

and the transmission service customer will reflect the costs and the associated roles of the study participants. The Transmission Provider will review the cost estimates and scope submitted by all participants for reasonableness, based on expected levels of participation and responsibilities in the study.

vi. The Transmission Provider will collect from the transmission service customer, and forward to the RPCE, the costs incurred by the RPCE with the performance of such studies.

vii. The Transmission Provider receiving the request will identify any transmission infrastructure improvements required as a result of the transmission service request.

viii. Construction and cost responsibility associated with any transmission infrastructure improvements required as a result of the transmission service request shall be accomplished under the terms of the applicable OATT, Transmission Service Guidelines, controlling agreements, and consistent with applicable Federal or State regulatory policy and applicable law.

d. Coordinated Regional Transmission Planning Study: The Transmission Provider agrees to participate in the conduct of a periodic Coordinated Regional Transmission Planning Study (CRTPS). The CRTPS shall have as input the

results of ongoing analyses of requests for interconnection and ongoing analyses of requests for long-term firm transmission service. The Parties shall coordinate in the analyses of these ongoing service requests in accordance with Sections 8.3.2 and 8.3.3. The results of the CRTPS shall be an integral part of the expansion plans of each Party. Construction of upgrades on the Transmission System of the Transmission Provider that are identified as necessary in the CRTSP shall be under the terms of the Owners Agreement of the Transmission Provider, applicable to the construction of upgrades identified in the expansion planning process. Coordination of studies required for the development of the Coordinated System Plan will include the following:

- i. Every three years, the Transmission Provider shall participate in the performance of a CRTPS. Sensitivity analyses will be performed, as required, during the off years based on a review by the JPC of discrete reliability problems or operability issues that arise due to changing system conditions.
- ii. The CRTPS shall identify all reliability and expansion issues, and shall propose potential resolutions to be considered by The Transmission Provider and the coordinating RPCEs.
- iii. As a result of participation in the CRTPS, except as provided for in Section II. A. 1., the Transmission Provider is not obligated in any way to construct, finance, operate, or

otherwise support any transmission infrastructure improvements or other transmission-related projects identified in the CRTPS. Any decision to proceed with any transmission infrastructure improvements or other transmission-related projects identified in the CRTPS shall be based on the applicable reliability, operational and economic planning criteria established for the Transmission Provider as applicable to the development of the MTEP and set forth in this Attachment FF.

- iv. As a result of participation in the CRTPS, the RPCEs are not entitled to any rights to financial compensation due to the impact of the transmission plans of the Transmission Provider upon the RPCE system, including but not limited to its decisions whether or not to construct any transmission infrastructure improvements or other transmission-related projects identified in the CRTPS.
- v. The JPC will develop the scope and procedure for the CRTPS. The scope of the CRTPSs performed over time will include evaluations of the transmission systems against reliability criteria, operational performance criteria, and economic performance criteria applicable to the Transmission Provider and the RPCEs.
- vi. In the conduct of the CRTPS, the Transmission Provider

and the coordinating RPCEs will use planning models that are developed in accordance with the procedures to be established by the JPC. Exchange of power flow models will be in a format that is acceptable to the coordinating parties.

- vii. **Stakeholder Review Processes.** The Transmission Provider, in coordination with coordinating RPCEs shall review the scope and results of the CRTPS with impacted stakeholders, and shall modify the study scope as deemed appropriate by the Transmission Provider in agreement with the coordinating RPCEs, after receiving stakeholder input. Such reviews will utilize the existing planning stakeholder forums of the coordinating parties including as applicable joint Sub Regional Planning Meetings.

II. Development Process for MTEP Projects: The Transmission Provider will develop the MTEP biennially or more frequently. The MTEP will identify expansion projects for inclusion in the MTEP according to the factors set forth in Appendix B of the ISO Agreement and Section I.A. of this Attachment FF. For purposes of assigning cost responsibility, expansion projects in the MTEP shall be categorized pursuant to the following criteria.

- A. Reliability Needs:** Reliability projects are identified either in the periodically performed Baseline Reliability Study, or in Facilities Studies associated with the request processes for new transmission access. Transmission access includes requests for both new transmission delivery service and new generation interconnection service.

1. Baseline Reliability Projects: Baseline Reliability Projects are Network Upgrades identified in the base case as required to ensure that the Transmission System is in compliance with applicable national Electric Reliability Organization (“ERO”) reliability standards and reliability standards adopted by Regional Reliability Organizations and applicable within the Transmission Provider Region. Baseline Reliability Projects include projects that are needed to maintain reliability while accommodating the ongoing needs of existing Market Participants and Transmission Customers. Baseline Reliability Projects may consist of a number of individual facilities that in the judgment of the Transmission Provider constitute a single project for cost allocation purposes. The Transmission Provider shall collaborate with Transmission Owning members, other transmission providers, Transmission Customers, and other stakeholders to develop appropriate planning models that reflect expected system conditions for the planning horizon. The planning models shall reflect the projected load growth of existing network customers and other transmission service and interconnection commitments, and shall include any transmission projects identified in Service Agreements or interconnection agreements that are entered into in association with requests for transmission delivery service or transmission interconnection service, as determined in Facilities Studies associated with such requests. The Transmission Provider shall test the MTEP for adequacy and security based on commonly applicable national Electric Reliability Organization (“ERO”) standards, and under likely and possible dispatch patterns of actual and projected Generation Resources within the Transmission System and

of external resources, including dispatch reflective of Long-Term Transmission Rights of Transmission Customers, and shall produce an efficient expansion plan that includes all Baseline Reliability Projects determined by the Transmission Provider to be necessary through the planning horizon of the MTEP. The Transmission Provider shall obtain the approval of the Transmission Provider Board, as set forth in Section VI, for each MTEP published.

2. New Transmission Access Projects: New Transmission Access Projects are defined for the purposes of Attachment FF as Network Upgrades identified in Facilities Studies and agreements pursuant to requests for transmission delivery service or transmission interconnection service under the Tariff. New Transmission Access Projects include projects that are needed to maintain reliability while accommodating the incremental needs associated with requests for new transmission or interconnection service, as determined in Facilities Studies associated with such requests. New Transmission Access Projects may consist of a number of individual facilities, which in the judgment of the Transmission Provider constitute a single project for cost allocation purposes. New Transmission Access Projects are either Generation Interconnection Projects or Transmission Delivery Service Projects as defined in Sections II.A.2.a. and II.A.2.b. The Transmission Provider shall consider the Baseline Reliability Projects already determined to be needed in the most current MTEP, as well as any other base-case needs not associated with the request for new service that may be identified during the impact study process when determining the need for New Transmission Access Projects. Any identified base-case needs determined

in the impact study process that are not a part of the Baseline Reliability Projects already identified in the most current MTEP shall become new Baseline Reliability Projects and shall be included in the next MTEP. New Transmission Access Projects identified in Facilities Studies and agreements pursuant to requests for transmission delivery service or transmission interconnection service under this Tariff shall be included in the next MTEP.

a. **Generation Interconnection Projects:** Generation Interconnection Projects are New Transmission Access Projects that are associated with interconnection of new, or increase in generating capacity of existing, generation under Attachments X to this Tariff.

b. **Transmission Delivery Service Projects:** Transmission Delivery Service Projects are New Transmission Access Projects that are needed to provide for requests for new Point-To-Point Transmission Service, or requests under Module B of the Tariff for Network Service or a new designation of a Network Resource(s).

B. Market Efficiency Projects: Market Efficiency Projects are Network Upgrades: (i) that are proposed by the Transmission Provider, Transmission Owner(s), ITC(s), Market Participant(s), or regulatory authorities; (ii) that are found to be eligible for inclusion in the MTEP or are approved pursuant to Appendix B, Section VII of the ISO Agreement after June 16, 2005, applying the factors set forth in Section I.A. of this Attachment FF; (iii) that have a Project Cost of \$5 million or more; (iv) that involve facilities with voltages of 345 kV or higher¹; and that may include any lower voltage facilities of 100kV or above that collectively constitute less than fifty percent (50%) of the combined project cost, and without which the 345 kV or higher

facilities could not deliver sufficient benefit to meet the required benefit-to-cost ratio threshold for the project as established in Section II.B.1.e, or that otherwise are needed to relieve applicable reliability criteria violations that are projected to occur as a direct result of the development of the 345 kV or higher facilities of the project; (v) that are not determined to be Multi Value Projects; and (vi) that are found to have regional benefits under the criteria set forth in Section II.B.1 of this Attachment FF.

1. Criteria to Determine Whether a Project Should be Included as a Market Efficiency Project: The Transmission Provider shall employ multiple future scenarios and multi-year analysis including sensitivity analyses guided by input from the Planning Advisory Committee to evaluate the anticipated benefits of a proposed Market Efficiency Project in order to determine if such a project meets the criteria for inclusion in the regional plan as a Market Efficiency Project eligible for regional cost sharing. Sensitivity analyses shall include, among other factors, consideration of: (i) variations in amount, type, and location of future generation supplies as dictated by future scenarios developed with stakeholder input and guidance; (ii) alternative transmission proposals; (iii) impacts of variations in load growth; and (iv) effects of demand response resources on transmission benefits.

¹ Transformer voltage is defined by the voltage of the low-side of the transformer for these purposes.

The Transmission Provider shall perform this inclusion analysis as follows:

a. The Transmission Provider shall utilize a weighted futures, no loss (“WFNL”) metric to analyze the anticipated annual economic benefits of construction of a proposed Market Efficiency Project to Transmission Customers in each of the Local Resource Zones, as defined in Attachment WW, based upon adjusted production cost (“APC”) savings. APC savings will be calculated as the difference in total production cost of the Resources in each Local Resource Zone adjusted for import costs and export revenues with and without the proposed Market Efficiency Project as part of the Transmission System. The WFNL metric for each Local Resource Zone shall be calculated using the weighted APC savings determined for each future scenario included in the analysis.

i. The WFNL metric shall utilize the future scenarios determined and identified by the Transmission Provider through the planning process, with input from all stakeholders. The weights applied to the results of each future scenario shall also be determined by the Transmission Provider with input from all stakeholders.

b. Project benefit evaluations will include benefits for the first 20 years of project life after the projected in-service date, with a maximum planning horizon of 25 years from the approval year. The annual benefit for a proposed Market Efficiency Project shall be determined as the sum of the WFNL values for each Local Resource Zone, as defined in Attachment WW. The total project benefit shall be determined by calculating the present value of annual benefits for the multiple year scenarios and multi-year evaluations.

c. The costs applied in the benefit to cost ratio shall be the present value, over the

same period for which the project benefits are determined, of the annual Network Upgrade Charges for the project as determined in accordance with the formula in Attachment GG for the Transmission Owner constructing the proposed Market Efficiency Project.

d. The present value calculation for both the annual benefits and annual costs will apply a discount rate representing the after-tax weighted average cost of capital of the Transmission Owners that make up the Transmission Provider Transmission System.

e. The Transmission Provider shall employ a benefit to cost ratio test to evaluate a proposed Market Efficiency Project. Only projects that meet a benefit to cost ratio of 1.25 or greater shall be included in the MTEP as a Market Efficiency Project and be eligible for regional cost sharing.

f. The benefits of the project and the cost allocations as a percentage of project cost shall be determined one time at the time that the project is presented to the Transmission Provider Board for approval. Estimated Project Cost will be used to estimate the benefit to cost ratio and the eligibility for cost sharing at the time of project approval. To the extent that the Commission approves the collection of costs in rates for Construction Work in Progress (“CWIP”) for a constructing Transmission Owner, costs will be allocated and collected prior to completion of the project.

g. The aforementioned Market Efficiency Project inclusion criteria shall be used for the exclusive purpose of determining whether projects are eligible for regional cost sharing in accordance with Section III.A.2.f below. These criteria shall not affect the existing criteria set forth in Appendix B of the ISO Agreement for determining whether projects are eligible for inclusion in the MTEP. Moreover, the costs of projects included in the MTEP,

but not eligible for regional cost sharing, shall continue to be eligible for inclusion in the calculation of Transmission Owner revenue requirements under Attachment O of this Tariff.

C. Multi Value Projects: A Multi Value Project is one or more Network Upgrades that address a common set of Transmission Issues and satisfy the conditions listed in Sections II.C.1, II.C.2., and II.C.3 of Attachment FF. All Network Upgrades associated with a Multi Value Project including any lower voltage facilities that may be needed to relieve applicable reliability criteria violations that are projected to occur as a direct result of the development of the Multi Value Project; may be cost shared per Section III.A.2.g of Attachment FF except for i) any Network Upgrade cost associated with constructing an underground or underwater transmission line above and beyond the cost of a feasible alternative overhead transmission line that provides comparable regional benefits, and ii) any DC transmission line and associated terminal equipment when scheduling and dispatch of the DC transmission line is not turned over to the Transmission Provider's markets, real-time control of the DC transmission line is not turned over to the Transmission Provider's automatic generation control system and/or the DC transmission line is operated in a manner that requires specific users to subscribe for DC transmission service.

1. A Multi Value Project must be evaluated as part of a Portfolio of projects, as designated in the transmission expansion planning process, whose benefits are spread broadly across the footprint.

2. A Multi Value Project must meet one of the three criteria outlined below:

- a. Criterion 1. A Multi Value Project must be developed through the transmission expansion planning process for the purpose of enabling

the Transmission System to reliably and economically deliver energy in support of documented energy policy mandates or laws that have been enacted or adopted through state or federal legislation or regulatory requirement that directly or indirectly govern the minimum or maximum amount of energy that can be generated by specific types of generation. The MVP must be shown to enable the transmission system to deliver such energy in a manner that is more reliable and/or more economic than it otherwise would be without the transmission upgrade.

- b. Criterion 2. A Multi Value Project must provide multiple types of economic value across multiple pricing zones with a Total MVP Benefit-to-Cost ratio of 1.0 or higher where the Total MVP Benefit - to-Cost ratio is described in Section II.C.7 of this Attachment FF. The reduction of production costs and the associated reduction of LMPs resulting from a transmission congestion relief project are not additive and are considered a single type of economic value.
- c. Criterion 3. A Multi Value Project must address at least one Transmission Issue associated with a projected violation of a NERC or Regional Entity standard and at least one economic-based Transmission Issue that provides economic value across multiple pricing zones. The project must generate total financially quantifiable benefits, including quantifiable reliability benefits, in excess of the total project costs based on the definition of financial

benefits and Project Costs provided in Section II.C.7 of Attachment FF.

3. All of the following conditions must be satisfied in order for a project to be classified as a Multi Value Project:

- a. Facilities associated with the transmission project must not be in service, under construction, or approved for construction by the Transmission Provider Board prior to July 16, 2010 or the date a Transmission Owner becomes a signatory member of the ISO Agreement, whichever is later.
- b. The transmission project must be evaluated through the Transmission Provider's transmission planning process and approved for construction by the Transmission Provider Board prior to the start of construction, where construction does not include preliminary site and route selection activities.
- c. The transmission project must not contain any transmission facilities listed in Attachment FF-1 of this Tariff.
- d. The total capital cost of the transmission project must be greater than or equal to the lesser of \$20,000,000.00 or 5% of the constructing Transmission Owner's net transmission plant as reported in Attachment O of the Tariff at the time the transmission project is approved in an MTEP.
- e. The transmission project must include, but not necessarily be limited to, the construction or improvement of transmission facilities

operating at voltages above 100 kV. A transformer is considered to operate above 100 kV when at least two sets of transformer terminals operate at voltages above 100 kV.

- f. Network Upgrades driven solely by an Interconnection Request, as defined in Attachment X of the Tariff, or a Transmission Service request will not be considered Multi Value Projects.
4. Any transmission project that qualifies as a Multi-Value Project shall be classified as an MVP irrespective of whether such project is also a Baseline Reliability Project and/or Market Efficiency Project.
 5. The specific types of economic value provided by a Multi Value Project include the following:
 - a. Production cost savings where production costs include generator startup, hourly generator no-load, generator energy and generator Operating Reserve costs. Production cost savings can be realized through reductions in both transmission congestion and transmission energy losses. Production cost savings can also be realized through reductions in Operating Reserve requirements within Reserve Zones and, in some cases, reductions in overall Operating Reserve requirements for the Transmission Provider.
 - b. Capacity losses savings where capacity losses represent the amount of capacity required to serve transmission losses during the system peak hour including associated planning reserve.
 - c. Capacity savings due to reductions in the overall Planning Reserve

Margins resulting from transmission expansion.

- d. Long-term cost savings realized by Transmission Customers by accelerating a long-term project start date in lieu of implementing a short-term project in the interim and/or long-term cost savings realized by Transmission Customers by deferring or eliminating the need to perform one or more projects in the future.
- e. Any other financially quantifiable benefit to Transmission Customers resulting from an enhancement to the Transmission System and related to the provisions of Transmission Service.

6. Any project to facilitate like-for-like capital replacements of plant originally installed as part of a Multi Value Project where replacement is due to aging, failure, damage or relocation requirements where such replacement is not the result of negligence by the constructing Transmission Owner will be treated as a Multi Value Project. The minimum project cost limitation for Multi Value Projects described in Section II.C.3.d of Attachment FF will not apply to the like for- like capital replacement projects described in this Section.

7. The following Total MVP Benefit-to-Cost Ratio will be applied to any Multi Value Project justified solely on the basis of Sections II.C.2.b or II.C.2.c of this Attachment FF to ensure such project qualifies as a Multi Value Project:

$$\text{Total MVP Benefit-to-Cost Ratio} = \text{financial benefits} / \text{Project Costs.}$$

For the purpose of this calculation, Financial Benefits will be set equal to the present value of all financially quantifiable benefits provided by the project projected for the first 20 years of the project's life and 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.

8. The aforementioned Multi Value Project inclusion criteria shall be used for the exclusive purpose of determining whether projects are eligible for regional cost sharing in accordance with Section III.A.2.g below. These criteria shall not affect the existing criteria set forth in Appendix B of the ISO Agreement for determining whether projects are eligible for inclusion in the MTEP. Moreover, the costs of projects included in the MTEP, but not eligible for regional cost sharing, shall continue to be eligible for inclusion in the calculation of Transmission Owner revenue requirements under Attachment O of this Tariff.

III. Designation of Cost Responsibility for MTEP Projects: Based on the planning analysis performed by the Transmission Provider, which shall take into consideration all appropriate input from Market Participants or external entities, including, but not limited to, any indications of a willingness to bear cost responsibility for an enhancement or expansion, the recommended MTEP shall, for any enhancement or expansion that is included in the plan, designate: (i) the Market Participant(s) in one or more pricing zones that will bear cost responsibility for such enhancement or expansion, as and to the extent provided by any applicable provision of the Tariff, including Attachments N, X, or any applicable cost allocation method ordered by the Commission; or, (ii) in the event and to the extent that no provision of the Tariff so assigns cost responsibility, the Market Participant(s) or Transmission Customer(s) in one or more pricing zones from which the cost of such enhancements or expansions shall be recovered through charges established pursuant to Attachment GG of this Tariff, or as otherwise provided for under this Attachment FF.

Any designation under clause (ii) of the preceding sentence shall be determined as provided for in Section III.A and III.B of this Attachment FF. For all such designations, the Transmission Provider shall calculate the cost allocation impacts to each pricing zone. The results will be reviewed for unintended consequences by the Transmission Provider and the Tariff Working Group and any such identified consequences shall be reported to the Planning Advisory Committee, and the OMS.

A. Allocation of Costs Within the Transmission Provider Region

1.Default Cost Allocation: Except as otherwise provided for in this Attachment FF, or by any other applicable provision of this Tariff and consistent with the ISO Agreement, the responsibility for Network Upgrades included in the approved MTEP will be addressed in accordance with the provisions of the ISO Agreement.

2.Cost Allocation: The Transmission Provider will designate and assign cost responsibility on a regional, and sub-regional basis for Network Upgrades identified in the MTEP subject to the grand-fathered project provisions of Section III.A.2.b~~5~~ and to the threshold criteria for facility voltage and Project Cost found in Section III.A.2.c.

a. Market Participant's Option to Fund: Notwithstanding the Transmission Provider's assignment of cost responsibility for a project included in the MTEP, one or more Market Participants may elect to assume cost responsibility for any or all costs of a Network Upgrade that is included in the MTEP. Provided however, in the event the Market Participant is also a Transmission Owner such election of the option to fund must be made on a

consistent, non-discriminatory basis.

b. Grandfathered Projects: The cost allocation provisions of this Attachment FF shall not be applicable to transmission projects identified in Attachment FF-1, which is based on the list of projects designated as Planned Projects in the MTEP approved by the Transmission Provider Board on June 16, 2005 (MTEP 05) and some additions of proposed projects that the Transmission Provider has determined to be in the advanced stages of planning.

c. Baseline Reliability Projects: Costs of Baseline Reliability Projects ~~shall be recovered pursuant to~~~~included in the MTEP and~~~~for which (1) the Network Upgrade has a Project Cost of \$5 million or more or (2) the Network Upgrade has a Project Cost of under \$5 million and is five percent (5 %) or more of the~~ Transmission Owner's net plant as established in Attachment O of this Tariff by the Transmission Owner(s) and/or ITC(s) developing such projects, ~~in effect at the time of designation of cost responsibility for the Network Upgrade, shall be~~ subject to the requirements of the ISO Agreement~~cost sharing of this Attachment FF and will be assigned to the Transmission Customers in pricing zones as follows:~~

i. ~~Projects of Voltage 100 kV through 344 kV: 100% of the Project Cost for Baseline Reliability Projects with a voltage class of 100 kV through 344 kV shall be allocated on a sub-~~

~~regional basis to all Transmission Customers in designated pricing zones. The designated pricing zones and the sub-regional allocation of the Project Cost shall be determined on a case-by-case basis in accordance with a Line Outage Distribution Factor Table (“LODF Table”) developed by the Transmission Provider which is similar in form to that attached hereto as Attachment FF 2. The LODF Table is based on Transmission System topology and Line Outage Distribution Factors associated with the project under consideration and is used to determine the pricing zones to be included in the sub-regional allocation of the Project Cost. The percentage of the sub-regional allocation assigned to each designated pricing zone shall be determined based on the relative share between pricing zones of the sum of the absolute value of the product of the Line Outage Distribution Factor on each Branch Facility in a pricing zone and the length in miles of the Branch Facility.~~

- ~~ii. Projects of Voltage 345 kV and Higher: 20% of the Project Cost for Baseline Reliability Projects with a voltage class of 345 kV or higher shall be allocated on a system-wide basis to all Transmission Customers and recovered through a system-wide rate. The remaining 80% of the Project Cost~~

~~for Baseline Reliability Projects with a voltage class of 345 kV or higher shall be allocated on a sub-regional basis to all Transmission Customers in designated pricing zones. The designated pricing zones and the sub-regional allocation of the Project Cost shall be determined on a case-by-case basis in accordance with a Line Outage Distribution Factor Table (“LODF Table”) developed by the Transmission Provider similar in form to that attached hereto as Attachment FF-2.~~

~~The LODF Table is based on Transmission System topology and Line Outage Distribution Factors associated with the project under consideration and is used to determine the pricing zones to be included in the sub-regional allocation of the Project Cost. The percentage of the sub-regional allocation assigned to each designated pricing zone shall be determined based on the relative share between pricing zones of the sum of the absolute value of the product of the Line Outage Distribution Factor on each Branch Facility in a pricing zone and the length in miles of the Branch Facility.~~

- d. Generation Interconnection Projects: Costs of Generation Interconnection Projects that are not determined by the Transmission Provider to be Baseline Reliability Projects, Market Efficiency Projects, or Multi-Value Projects, and the Network

Upgrade costs associated with advancing a Baseline Reliability Project, Market Efficiency Project, or Multi-Value Project associated with a generator interconnection will be paid for by the Interconnection Customer(s) in accordance with Attachment X. For Generator Interconnection Projects interconnecting to the American Transmission Company LLC transmission system, such costs will be subject to the provision of Attachment FF – ATCLLC.

- 1) For Network Upgrades to facilities in voltage classes at or above 345 kV, the Interconnection Customer shall be repaid 10 percent of the costs of the Generation Interconnection Project funded by the Interconnection Customer once Commercial Operation is achieved. The Transmission Owner(s) constructing the Generation Interconnection Project will repay 10% of the Generation Interconnection Project costs associated with Network Upgrade facilities in a voltage class of 345 kV or greater to the Interconnection Customer under repayment terms consistent with the schedules and other terms of Attachment X.

The 10% of the Project Cost associated with Network Upgrade facilities of voltage class 345 kV or above and repaid to the Interconnection Customer shall be allocated

on a system-wide basis and recovered pursuant to Attachment GG of this Tariff.

- 2) An Interconnection Customer may be required to contribute to the cost of Shared Network Upgrades, as defined in Attachment X to the Tariff, that are funded by another Interconnection Customer as a Generator Interconnection Project pursuant to Attachment X.

Each Interconnection Customer with one or more Shared Network Upgrade(s) identified in Appendix A of its Generator Interconnection Agreement shall make a one-time payment under Schedule 26-B to the Transmission Provider in accordance with the terms in the Generator Interconnection Agreement. The one-time payment will reflect the cost of the Shared Network Upgrade assigned to the Interconnection Customer as determined by the Transmission Provider.

All revenue collected by the Transmission Provider through Schedule 26-B shall be distributed to the appropriate Interconnection Customer(s).

- 3) The Interconnection Customer shall be entitled, pursuant to Section 46 of this Tariff, to any Financial Transmission Rights or other rights to the extent provided for under this Tariff, for any Network Upgrade costs funded by or

charged to the Interconnection Customer and not subject to repayment under the provisions of this Section III.A.2.d. In the event that a Generator Interconnection Project defers or displaces a Baseline Reliability Project, the costs of the Generator Interconnection Project up to the costs of the deferred or displaced Baseline Reliability Project shall be allocated consistent with the cost allocation for the Baseline Reliability Project.

4) International Transmission/Michigan Electric Transmission Company/ITC Midwest LLC:

(a) For those Generator Interconnection Projects for which International Transmission Company, Michigan Electric Transmission Company, LLC, or ITC Midwest LLC (“International” or “METC” or “ITC Midwest”) as Transmission Owners will be a signatory to the interconnection agreement under the terms of Attachment X of this Tariff or any successor provision of the Tariff executed by the parties after the effective date of this Attachment FF Section III.A.2.d.4, this Attachment FF Section III.A.2.d.4 shall apply, except that, where ITC Midwest is the Transmission Owner, the Interconnection Customer may elect to have another approved methodology under Attachment FF Section III.A.2.d apply.

(b) Generation Interconnection Projects: The cost of Network Upgrades for Generation Interconnection Projects that are not determined by the Transmission Provider to be Baseline Reliability Projects shall be reimbursed by the Transmission Owner as provided in this Section III.A.2.d.4. All costs of Network Upgrades for Generation Interconnection Projects will initially be paid by the Interconnection Customer in accordance with the terms of the Interconnection Agreement entered into pursuant to Attachment X of this Tariff. To the extent the Interconnection Customer demonstrates at the time of Commercial Operation of the Generating Facility one of the following:

- i. Generating Facility has been designated as a Network Resource in accordance with the Tariff, or
- ii. Contractual commitment has been entered into with a Network Customer for capacity, or in the case of an Intermittent Resource, for energy, from the Generating Facility for a period of one (1) year or longer.

The Interconnection Customer will receive up to one hundred percent (100%) reimbursement of reimbursable

costs within ninety (90) days of the Commercial Operation Date, such reimbursement prorated by the percentage of the Generating Facility capacity or annual available energy output contracted for and as demonstrated to the satisfaction of the Transmission Provider.

If the Interconnection Customer is unable to demonstrate to the satisfaction of the Transmission Provider at the time of Commercial Operation of the Generating Facility that the Generating Facility has met the repayment obligations set forth in Attachment FF Sections III.A.2.d.4.b.i. or III.A.2.d.4.b.ii. the Interconnection Customer shall be directly assigned 100% of the costs of the Generation Interconnection Project. The Transmission Owner may effect this direct assignment of costs by either foregoing any repayment of costs funded by the Interconnection Customer, or by electing to repay 100% of the costs under repayment terms consistent with the schedules and other terms of Attachment X.

The Interconnection Customer shall be entitled, pursuant to Section 46 of this Tariff, to any Financial Transmission Rights or other rights to the extent provided for under this Tariff, for any Network Upgrade costs funded by or charged to the Interconnection Customer and not subject to

repayment under the provisions of this Attachment FF Section III.A.2.d.4. In the event that a Generator Interconnection Project defers or displaces a Baseline Reliability Project, the costs of the Generator Interconnection Project up to the costs of the deferred or displaced Baseline Reliability Project shall be allocated consistent with the cost allocation for the Baseline Reliability Project.

(c) For all amounts to be reimbursed by a Transmission Owner to an Interconnection Customer in accordance with this Attachment FF Section III.A.2.d.4, the Transmission Owner will reimburse the sums received from the Interconnection Customer in cash together with any applicable interest, in accordance with the terms of the Interconnection Agreement.

(d) Allocation of Generator Interconnection Reimbursement. For all amounts reimbursed by a Transmission Owner to an Interconnection Customer under this Attachment FF Section III.A.2.d.4, fifty percent (50%) of the reimbursement will be allocated consistent with the allocations under this Attachment FF Sections III.A.2.c.i and III.A.2.c.ii, except that such costs associated with Generation Interconnection Projects of less than 100 kV

voltage class shall also be allocated consistent with Section III.A.2.c.i. The remaining fifty percent (50%) of the reimbursement will not be subject to any regional or sub-regional cost allocation, but will be recovered by that Transmission Owner under its Attachment O transmission rate formula under this Tariff.

- e. Transmission Delivery Service Projects: Costs of Transmission Delivery Service Projects shall be assigned and recovered in accordance with Attachment N of this Tariff.
- f. Market Efficiency Projects: Costs of Market Efficiency Projects shall be allocated as follows:
 - i) Twenty percent (20%) of the Project Cost of the Market Efficiency Project shall be allocated on a system-wide basis to all Transmission Customers and recovered through a system-wide rate.
 - ii) Eighty percent (80%) of the costs of the Market Efficiency Projects shall be allocated to all Transmission Customers in each of the Local Resource Zones, as defined in Attachment WW. The cost allocated to each Local Resource Zone shall be based on the relative benefit determined for each Local Resource Zone that has a positive present value of annual benefits over the evaluation period using the methodology for project benefit determination of Section II.B.1.

iii) Excessive Funding or Requirements: The Transmission Provider shall seek to identify and manage the development of, as a part of the planning process for Market Efficiency Projects, portfolios of projects that tend to provide benefits throughout each Local Resource Zone, as defined in Attachment WW, over the planning horizon. The Transmission Provider shall analyze on an annual basis whether the project portfolios developed in accordance with this goal and the criteria in Section III. A.2.f unintentionally result in unjust or unreasonable annual capital funding requirements for any Transmission Owner or rate increases for Transmission Customers in designated pricing zones; or otherwise result in undue discrimination between the Transmission Customers, Transmission Owners, or any Market Participants; any such identified consequences shall be reported to the Planning Advisory Committee and to the Organization of MISO States. After discussing such assessments with the aforementioned stakeholder bodies, and taking into consideration the cumulative experience in applying this Attachment FF, the Transmission Provider will make a determination as to whether Tariff modifications are required, and if so file such modifications.

g. Multi Value Projects: Costs of Multi Value Projects will be

allocated as follows:

- i) One-hundred percent (100%) of the annual revenue requirements of the Multi Value Projects shall be allocated on a system-wide basis to Transmission Customers that withdraw energy, including External Transactions sinking outside the Transmission Provider's region, and recovered through an MVP Usage Charge pursuant to Attachment MM.
- h. Treatment of Projects that meet both Baseline Reliability Project Criteria and/or New Transmission Access Project Criteria, and the Market Efficiency Project Criteria: If the Transmission Provider determines that a project designated as a Market Efficiency Project also meets the criteria to be designated as a Baseline Reliability Project and/or a New Transmission Access Project, the cost of such project shall be allocated in accordance with the Market Efficiency Project allocation procedures.
- i. Other Projects: Unless otherwise agreed upon pursuant to Section III.A.2.a. of this Attachment FF, the costs of Network Upgrades that are included in the MTEP, but do not qualify as Baseline Reliability Projects, New Transmission Access Projects, Market Efficiency Projects or Multi-Value Projects, shall be eligible for recovery pursuant to Attachment O of this Tariff by the Transmission Owner(s) and/or ITC(s) paying the costs of such

project, subject to the requirements of the ISO Agreement.

- j. Withdrawal from Midwest ISO: A Transmission Owner that withdraws from the Midwest ISO as a Transmission Owner shall remain responsible for all financial obligations incurred pursuant to this Attachment FF while a Member of the Midwest ISO and payments applicable to time periods prior to the effective date of such withdrawal shall be honored by the Midwest ISO and the withdrawing Member.
- k. New Transmission Owners: A new Transmission Owner joining the Midwest ISO will be responsible for the following financial obligations:
 - a. New Transmission Owners will not be responsible for any portion of Baseline Reliability Projects, Generator Interconnection Projects, Transmission Delivery Service Projects, or Market Efficiency Projects that were approved prior to their entry date.
 - b. For Multi-Value Projects approved prior to the new Transmission Owner's entry date, the load interconnected to the Transmission Owner's Transmission System will be responsible for one-hundred percent (100%) of the MVP usage charge described in Attachment MM for the years following the Transmission Owner's entry date applied to the Monthly Net Actual Energy Withdrawals for Load

interconnected to the Transmission Owner's Transmission System.

1. Only a Transmission Owner shall be authorized to construct and/or own transmission facilities associated with a Baseline Reliability Project, Market Efficiency Project and/or Multi Value Project. For projects jointly developed between Transmission Owners and other parties the portion constructed and owned by a Transmission Owner may qualify as a Baseline Reliability Project, Market Efficiency Project and/or Multi Value Project.

IV. [RESERVED FOR FUTURE USE]

V. Designation of Entities to Construct, Own and/or Finance MTEP Projects: For each project included in the recommended MTEP, the plan shall designate, based on the planning analysis performed by the Transmission Provider and based on other input from participants, including, but not limited to, any indications of a willingness to bear cost responsibility for the project; and applicable provisions of the ISO Agreement, one or more Transmission Owners or other entities to construct, own and/or finance the recommended project.

VI. Implementation of the MTEP:

A. If the Transmission Provider and any Transmission Owner's planning representatives, or other designated entity(ies), cannot reach agreement on any element of the MTEP, the dispute may be resolved through the dispute resolution procedures provided in the Tariff, or in any applicable joint operating agreement, or by the Commission or state regulatory authorities, where appropriate. The MTEP shall have as

one of its goals the satisfaction of all regulatory requirements as specified in Appendix B or Article IV, Section I, Paragraph C of the ISO Agreement.

B. The Transmission Provider shall present the MTEP, along with a summary of relevant alternative projects that were not selected, to the Transmission Provider Board for approval on a biennial basis, or more frequently if needed. The proposed MTEP shall include specific projects already approved as a result of the Transmission Provider entering into Service Agreements with Transmission Customers where such agreements provide for identification of needed transmission construction, timetable, cost, and Transmission Owner or other parties' construction responsibilities.

C. Approval of the MTEP by the Transmission Provider Board certifies it as the Transmission Provider plan for meeting the transmission needs of all stakeholders subject to any required approvals by federal or state regulatory authorities. The Transmission Provider shall provide a copy of the MTEP to all applicable federal and state regulatory authorities. The affected Transmission Owner(s), or other designated entity(ies), shall make a good faith effort to design, certify, and build the designated facilities to fulfill the approved MTEP. However, in the event that a proposed project is being challenged through the dispute resolution procedures under this Tariff, the obligation of the Transmission Owners, or other designated entity(ies), to build that specific project (subject to required approvals) is waived until the project emerges from the dispute resolution procedures as an approved project. The Transmission Provider Board shall allow the Transmission Owners, or other designated entity(ies), to optimize the final design of specific facilities and their in-service dates if necessary to accommodate changing conditions, provided that such changes comport with the approved MTEP and

provided that any such changes are accepted by the Transmission Provider. Any disagreements concerning such matters shall be subject to the dispute resolution procedures of this Tariff.

D. The Transmission Provider shall assist the affected Owner(s), or other designated entity(ies), in justifying the need for, and obtaining certification of, any facilities required by the approved MTEP by preparing and presenting testimony in any proceedings before state or federal courts, regulatory authorities, or other agencies as may be required. The Transmission Provider shall publish annually, and distribute to all Members and all appropriate state regulatory authorities, a five-to-ten-year planning report of forecasted transmission requirements. Annual reports and planning reports shall be available to the general public upon request.

VII. Multi-Value Project Costs and Benefits Review and Reporting

A. Frequency and Reporting of Multi-Value Project Review: Every three (3) years, as provided below and in the Business Practices Manual for Transmission Planning, the Transmission Provider shall conduct a review of the cumulative costs and benefits associated with MVPs, and shall disseminate the results of such reviews to its stakeholders. The Transmission Provider shall use the review process and results to identify potential modifications to the MVP methodology and its implementation for projects to be approved at a future date.

1. Triennial Full MVP Review: Beginning with the MTEP for 2014 (“MTEP 14”), and every third year thereafter, the Transmission Provider shall conduct a full MVP review, as provided in section VII.B of this Attachment FF.

2. Annual Limited MVP Review: Beginning with the MTEP for 2015 (“MTEP 15”), and each year thereafter when there is no full MVP review, the Transmission Provider shall conduct a limited MVP review, as provided in section VII.C of this Attachment FF.
3. Calculation of Costs and Benefits: The reviews shall calculate costs and benefits on a forward-looking basis over both twenty (20)-year and forty (40)-year periods. The costs calculation shall use updated project costs and in-service dates provided in the latest MTEP quarterly status report, and the benefits calculation shall use updated future scenarios from the latest MTEP planning cycle. The results of the costs and benefits calculation shall be provided for each Local Resource Zone as defined in Module E. If the Local Resource Zones as defined in accordance with Module E for Resource Adequacy purposes are modified, the Transmission Provider, working with stakeholders, may define different Local Resource Zones for purposes of reporting the results of the review. The definition of different Local Resource Zones in connection with reporting the results of the review will be detailed in the Business Practices Manual for Transmission Planning.
4. Dissemination of the Results of the Full and Limited MVP Reviews: Within a reasonable time after completion of each MVP review, the Transmission Provider shall disseminate the results of and supporting analysis for the MVP review through: (a) publication in the MTEP; (b) posting on the appropriate section of the Transmission Provider’s public website; and (c) presentation to the appropriate stakeholder committees.

B. Scope of Full Multi-Value Project Review: Each full MVP review shall at a minimum include the following:

1. Quantitative Benefits: Analysis of the quantifiable economic benefits resulting from the addition of MVPs, including, but not limited to:
 - a. Congestion and Fuel Savings: Savings from increased access to lower cost Resources;
 - b. Decreased Operating Reserves: Savings associated with lower Operating Reserve requirements;
 - c. Decreased System Planning Reserve Margin: Savings associated with deferred generation investment due to a reduction in the system-wide Planning Reserve Margin; and
 - d. Decreased Transmission Line Losses: Savings associated with deferred generation investment due to a reduction in the Capacity required to serve transmission losses during peak hours, to the extent that MVPs reduce such losses.
2. Public Policy and Other Qualitative Benefits: Analysis of the public policy and other qualitative benefits accruing from MVPs, such as newly interconnected wind units; and an increase in the percentage of the Transmission Provider's Energy needs being supplied by wind and/or other renewable resources, and wind curtailments.
3. Historical Data: Provision, beginning with the MTEP for 2017 ("MTEP 17"), and

based on the historical data available to the Transmission Provider for the five (5) prior years, of information on certain additional market trend metrics including, but not limited to:

- a. Congestion costs;
- b. Energy prices;
- c. Fuel costs;
- d. Planning Reserve Margin requirements;
- e. Number of newly interconnected Resources, by Resource type; and
- f. The share of the Transmission Provider's Energy supplied, by Resource type.

C. Scope of Limited Multi-Value Project Review: Each limited MVP review shall at a minimum include the items described in Sections VII.B.1.a and VII.B.3 of this Attachment FF, based on the latest available data for the current year, in preparation for the next full MVP review.

TAB B

ATTACHMENT FF Transmission Expansion Planning Protocol

Version: 7.0.0 Effective: 12/31/9998

ATTACHMENT FF

TRANSMISSION EXPANSION PLANNING PROTOCOL

I. Transmission Expansion Plan - Purpose and Scope: This Attachment FF describes the process to be used by the Transmission Provider to develop the Midwest ISO Transmission Expansion Plan (“MTEP”), subject to review and approval by the Transmission Provider Board. The provisions of this Attachment FF are consistent with the applicable provisions of Appendix B of the ISO Agreement and this Tariff. For purposes of this Attachment FF, all references to Transmission Owner(s) will include ITC(s). The costs incurred by the Transmission Provider in the performance of data collection, analyses and review, and in the development of the MTEP report, costs incurred under Section I.B of this Attachment FF, and costs incurred under Section I.C of this Attachment FF shall be recovered from all Transmission Customers under Schedule 10 of the Tariff.

A. Development of the MTEP: The Transmission Provider, working in collaboration with representatives of the Transmission Owners and the Planning Advisory Committee, shall develop the MTEP, consistent with Good Utility Practice and taking into consideration long-range planning horizons, as appropriate. The Transmission Provider shall develop the MTEP for expected use patterns and analyze the performance of the Transmission System in meeting both reliability needs and the needs of the competitive bulk power market, under a wide variety of contingency conditions. The MTEP will give full consideration to the needs of all Market Participants, will include consideration of demand-side options, and will identify expansions or

enhancements needed to support competition in bulk power markets and in maintaining reliability. This analysis and planning process shall integrate into the development of the MTEP among other things:

(i) the Transmission Issues identified from Facilities Studies carried out in connection with specific transmission service requests; (ii) Transmission Issues associated with generator interconnection service; (iii) the Transmission Issues, including proposed transmission projects, identified by the Transmission Owners in connection with their planning analyses in accordance with local planning process described in Section I.B.1.a to this Attachment FF and the coordination processes of Section I.B.1.b., or developed by Transmission Owners utilizing their own FERC-approved local transmission planning process described in Section I.B.2, as applicable, to provide reliable power supply to their connected load customers and to expand trading opportunities, better integrate the grid and alleviate congestion; (iv) the transmission planning obligations of a Transmission Owner, imposed by federal or state law(s) or regulatory authorities, which can no longer be performed solely by the Transmission Owner following transfer of functional control of its transmission facilities to the Transmission Provider; (v) plans and analyses developed by the Transmission Provider to provide for a reliable Transmission System and to expand trading opportunities, better integrate the grid and alleviate congestion; (vi) the identification, evaluation, and analysis of expansions to enable the Transmission System to fully support the simultaneous feasibility of all State 1A ARRs; (vii) the inputs provided by the Planning Advisory Committee; and (viii) the inputs, if any, provided by the state regulatory authorities having jurisdiction over any of the Transmission Owners and by the OMS.

1. Planning Cycle and Milestones: The ISO Agreement requires that a regional transmission plan be developed biennially or more frequently. A typical MTEP development cycle of 12 to 24 month duration is performed continuously. The development of the MTEP will follow specified process steps that are detailed, including process diagrams, in the Transmission Provider's Transmission Planning Business Practices Manual ("TPBPM"). The TPBPM shall be posted on the website of the Transmission Provider.

a. Planning Functions: The planning process includes the following functions which are described in detail in the TPBPM:

- i. Model Development;
- ii. Generator Interconnection Planning;
- iii. Transmission Service Planning;
- iv. Cyclical Regional Expansion Planning activities;
- v. Coordinated System Plans with other RTOs/regions;
- vi. System Support Resource ("SSR") Studies for unit de-commissioning;
- vii. Transmission-to-Transmission Interconnections;
- viii. Load Interconnections; and
- ix. Focus Studies. These are studies initiated during the cyclical baseline planning process that cannot be delayed until the next planning cycle (for example, NERC/FERC directives, or near-term critical operational issues).

Each of these planning functions may develop system expansions that are taken

into consideration in developing the entirety of the MTEP.

b. Planning Cycle: The regional planning process is performed through a continuous series of planning cycles, with each cycle typically addressing Transmission Issues through a rolling planning horizon. Each cycle commences with regional model development, and identification of potential expansions from the local planning processes of the Transmission Owners, and concludes with recommendations to the Transmission Provider Board of Directors of recommended solutions to identified Transmission Issues. Transmission Owner plans developed through local planning processes described in Section I.B.1.a are included in the beginning of each regional planning cycle as potential alternatives to local Transmission Issues identified by the Transmission Owners. The regional planning process evaluates, with stakeholder input throughout the cycle, the local plans of the Transmission Owners, as one input to the development of the regional plan. Key milestones in the typical MTEP development process are listed below and requirements and timelines for data submittal, review, and comment at each of these milestone points are described in the TPBPM:

- i. Model development;
- ii. Testing models against applicable planning criteria;
- iii. Development of possible solutions to identified Transmission Issues;
- iv. Selection of preferred solution;

- v. Determination of funding and cost responsibility; and
- vi. Monitoring progress on solution implementation.

The Transmission Provider shall address each of these milestones throughout the planning cycle through Sub-regional Planning Meetings, Planning Subcommittee and Planning Advisory Committee meetings.

2. Stakeholders Input in Planning Process: The Transmission Provider shall facilitate discussions with its Transmission Customers and other stakeholders, the Transmission Owners about the Transmission Issues and solutions involving both transferred and non-transferred facilities, as described in Section I.B.1 of this Attachment FF.

These discussions will take place at Sub-regional Planning Meetings and at regularly scheduled meetings of the Transmission Provider's Planning Subcommittee, at locations provided by the Transmission Provider and with communication capabilities for those participants unable to have in person representation at these meetings.

a. Planning Advisory Committee ("PAC"): The Planning Advisory Committee is a standing committee reporting to the Transmission Provider's Advisory Committee, and functions subject to the Stakeholder Governance Guide developed by the Stakeholder Governance Working Group, as approved by the Advisory Committee. The PAC is responsible for addressing planning policy issues of importance to stakeholders and within the responsibilities of the Transmission Provider. The PAC charter is maintained on the Transmission Provider's website.

b. Planning Subcommittee (“PS”): The Planning Subcommittee is a standing stakeholder-chaired subcommittee of the Planning Advisory Committee, and functions subject to the Stakeholder Governance Guide developed by the Stakeholder Governance Working Group, as approved by the Advisory Committee. Planning Subcommittee membership is open to interested parties, including, but not limited to: transmission delivery service and interconnection service customers, marketers, developers, Transmission Owners, state and federal regulatory staff, and other Market Participants and observers. The charter for the committee is developed by stakeholders and is maintained on the Transmission Provider’s website. The Transmission Provider will seek guidance from stakeholders through the Planning Subcommittee and/or the Planning Advisory Committee prior to the beginning of each new planning cycle. Guidance will include the scope of planning studies to be undertaken and the development of suitable models and assumptions to support such studies. The Transmission Provider will also seek guidance from stakeholders through the Planning Subcommittee and/or the Planning Advisory Committee prior to implementing changes or revisions to the scope, models, and assumptions during the planning cycle. The Planning Subcommittee and/or the Planning Advisory Committee may form working groups at the discretion of stakeholders to perform specific tasks supporting the planning processes, such as model development and detail review of study results and draft plan reports.

c. Sub-regional Planning Meetings (“SPMs”): The Transmission Provider shall utilize SPMs to provide opportunity for stakeholders to provide input to the planning process, and to carry out the tasks of coordinating transmission plans among the Transmission Owners. Input and planned coordination may occur through the use of existing sub-regional planning groups (“SPGs”) where they exist, or through the establishment of new sub-regional meeting forums. One or more SPMs will be used or established for each of the three regional Planning Sub-regions of the Transmission Provider. Planning Sub-regions shall be defined based upon the Transmission Provider Planning Sub-regions: West, Central, and East as defined in Attachment FF-3.

i) SPM Participants: Participants at an SPM will consist of representatives of the Transmission Owners operating within the associated Planning Sub-region that integrate their local planning processes with the regional process, and any parties interested in or impacted by the planning process. For those Transmission Owners engaged in local planning under their own FERC approved local planning processes, such Transmission Owners shall participate in the SPM in order to coordinate their planning activities.

Neighboring transmission-owning utilities and regulatory participants are eligible and encouraged to participate in the SPM to promote joint planning between the Transmission Provider and neighboring transmission systems.

ii) SPM Guidelines. The Sub-regional Planning Meeting participants shall:

(a) Make recommendations for a coordinated sub-regional Plan, after considering sub-regional and regional needs and alternatives, for the ensuing ten years, for all transmission facilities in the sub-region;

(b) Review and comment on proposed Transmission Owners plans identified in local planning processes described in Section I.B.1.a. of this Attachment FF, for additions and modifications to the sub-regional transmission system, as potential solutions to identify Transmission Issues and review the transmission plans developed by those Transmission Owners that have their own FERC-approved local planning process (described in Section I.B.2) to ensure coordination of the projects set forth in such plans with the potential regional planning solutions developed in the SPM process consistent with the requirements of Appendix B of the Transmission Owners' Agreement;

(c) Form technical study task forces as required to carry out the sub-regional planning responsibilities;

(d) Encourage non-Transmission Provider member participation to improve understanding by the SPM

participants, the Planning Subcommittee, and the Transmission Provider staff of facility changes outside the Transmission Provider Region to ensure the impact of such changes are considered in the planning studies;

(f) Promote stakeholder (i.e. regulators, environmental agencies, and load and generation developers) involvement in development of the sub-regional plans.

(g) Recommend to the Planning Subcommittee proposed sub-regional plans to be included in the MTEP.

In addition, the transmission projects developed by any Transmission Owner or Owners utilizing the provisions of their own FERC-approved local planning process shall be submitted for inclusion in the regional MTEP after being evaluated by the Transmission Provider in the regional evaluation of SPMs in accordance with Appendix B of the Transmission Owners' Agreement in determining the Transmission Provider's recommendation for inclusion in the MTEP.

(h) Reflect, as desired, minority opinions to the Transmission Provider or the Planning Subcommittee.

i) SPM Frequency, Location and Agenda:

SPMs should meet at least two times per year or as otherwise provided for in the TPBPM, to provide

input in the planning process, review plans and recommend changes, if any, needed to address stakeholder needs and to coordinate proposed plans. Meetings involving CEII or confidential materials shall be handled under Section I.A.12 of this Attachment FF.

3. Meeting Notifications: Notice shall be provided by way of email exploder lists distribution by the Transmission Provider of all SPMs, Planning Subcommittee, and Planning Advisory Committee meetings. These email exploder lists are established and maintained by the Transmission Provider and it is the responsibility of stakeholders to have registered as described on the Transmission Provider website. Meeting dates, times, locations, and materials will also be posted on the meeting calendar page of the Transmission Provider's website. Meeting notification guidelines are set forth in the stakeholder developed Stakeholder Governance Guidelines.
4. Other Meeting Schedules: Planning Subcommittee meetings are regularly scheduled meetings that occur no less than bimonthly. Annual meeting schedules and objectives are developed at the December meeting each year for the subsequent year. Planning Advisory Committee meetings are scheduled as per the PAC Charter.
5. Planning Criteria: The Transmission Provider shall evaluate the system to Transmission Issues in a manner consistent with the ISO Agreement and this Attachment FF. Projects included in the MTEP may be based upon any

applicable planning criteria, including accepted NERC reliability standards and reliability standards adopted by Regional Entities, local planning reliability or economic planning criteria of the Transmission Owner, or required by State or local authorities, and any economic or other planning criteria or metrics defined in this Attachment FF. Transmission Owners are required to annually provide updated copies of local planning criteria for posting on the Transmission Provider's website.

6. Planning Analysis Methods: Planning analyses performed by the Transmission Provider will test the Transmission System under a wide variety of conditions as described in Section II and using standard industry applications to model steady state power flow, angular and voltage stability, short-circuit, and economic parameters, as determined appropriate by the Transmission Provider to be compliant with applicable criteria and this Tariff.

7. Planning Models: The Transmission Provider shall collaborate with Transmission Owners, other transmission providers, Transmission Customers, and other stakeholders to develop appropriate planning models that reflect expected system conditions for the planning horizon. The planning models shall reflect the projected Load growth of existing Network Customers and other transmission service and interconnection commitments. The models shall include any transmission projects identified in Service Agreements or Interconnection Agreements that are entered into in association with requests for transmission delivery service or interconnection service, as determined in Facilities Studies associated with such requests. Load forecasts applied to models will consider the

forecast Load of Network Customers reported to the Transmission Provider in accordance with the requirements of Module B and Module E of this Tariff, and the Business Practices Manuals of the Transmission Provider. Models will be posted on an FTP site maintained by the Transmission Provider and accessible to stakeholders with security measures as provided for in the TPBPM. The Transmission Provider will provide an opportunity for stakeholders to review and comment on the posted models before commencing planning studies.

The schedules for such reviews are maintained in the TPBPM. Stakeholders shall be afforded opportunities to provide input on Load projections from Tariff reporting requirements or from Transmission Owner forecasts. After the base line forecast and model are established, the Transmission Provider and/or Transmission Owners may adjust the forecast as necessary on an ad hoc basis throughout the planning year to address customer requests for new Load interconnections arising from on-going dialogue with existing and prospective customers.

8. Planning Assumptions: Each MTEP report shall list in detail the planning assumptions upon which the analyses are based. In general, planning analyses will be based on the following:

a. Planning Horizons: The MTEP will identify Transmission Issues for a minimum planning horizon of five years and a maximum planning horizon of twenty years.

b. Load: Load demand will generally be modeled by the Transmission Provider as the most probable (“50/50”) coincident Load

projection for each Transmission Owner's service territory, for the season under study. Specific studies may model alternative Load probabilities or peak Load for areas within a Transmission Owner's service territory as dictated by operational and planning experience and/or local planning criteria, but in any case shall be treated consistently in the planning for native Load and transmission access requests.

c. Generation: Planning models of five years or longer will model generation, taking into consideration applicable planning reserve requirements, that are: (i) existing and expected to be in existence in the planning horizon; (ii) not existing but with executed interconnection agreements; and (iii) additional generation as determined with stakeholder input, as necessary to adequately and efficiently meet demand forecasted through the planning horizon and to facilitate compliance with statutory or regulatory mandates. The Transmission Provider shall apply a scenario analysis to determine alternative future generation portfolio possibilities. Generation portfolio development for planning model purposes will be developed with input from the Planning Advisory Committee and its subcommittees, working groups, and task forces. Point-To-Point Transmission Service and Network Integration Transmission Service customers will have an opportunity to guide new generation portfolio development that is reflective of customer future resource plans.

d. Demand Response Resources: Planning solutions will be based upon the best available information regarding the expected amount and

location of Load that can be effectively and efficiently reduced by demand response or energy efficiency programs, as well as the amount of behind-the-meter generation that can reliably be expected to produce Energy that could impact planning solutions. The Transmission Provider shall perform and report on sensitivity analyses that indicate the effectiveness of potential demand response as alternative planning solutions, to the extent that appropriate methodology for such analyses is developed with stakeholders and documented in the TPBPM.

e. Topology: Each planning study will use the best known topology based upon the most recently approved MTEP. Planning studies will include all projects approved by the Transmission Provider Board, and shall identify, as appropriate, and as detailed in the TPBPM, any system needs already identified in the most recent approved MTEP.

9. Evaluation of Alternatives: When the planning analyses, based on the foregoing principles, identifies Transmission Issues, the Transmission Provider will consider the inputs from stakeholders derived from the SPM processes, the inputs from the Planning Subcommittee and the Planning Advisory Committee, the plans of any Transmission Owner with its own FERC-approved local planning process, and the MTEP aggregate system analyses against applicable planning criteria, in determining the solutions to be included in the MTEP and recommended to the Transmission Provider Board for implementation.

10. Facility Design: Facility design and system configuration (such as conductor sizes, transformer design, bus configuration, protection schemes) are

selected by the Transmission Owner, and must be consistently applied by the Transmission Owner for comparable system service conditions. Comparable application of system design does not preclude the consideration or selection of advanced or alternative transmission technology.

11. Status of Recommended Facilities: Upon solicitation from the Transmission Provider, the responsible Transmission Owner shall report the status of all projects recommended for implementation in the MTEP. The Transmission Provider shall report such progress to the Transmission Provider Board on a quarterly basis, or as otherwise directed by the Transmission Provider Board.

12. Treatment of Critical Energy Infrastructure Information (“CEII”) and Confidential Data: The Transmission Provider shall utilize a Non-Disclosure and Confidentiality Agreement (“NDA”) to address sharing of CEII transmission planning information. FTP sites containing such information will require such agreements to be executed in order to obtain access to those sites. Stakeholder meetings at which CEII may be available shall be noticed to email exploders and shall require execution of NDAs prior to participation in such meetings. In the alternative, such meetings will be structured to have separate discussion of issues involving CEII data only with participants that agree to execute the NDA. Confidential information related to economic (e.g., congestion) studies, as well as CEII, is clearly sensitive information which must remain confidential. The Transmission Provider shall use generic, publicly available, cost information from industry sources in the economic studies to prevent the accidental release of confidential information. This approach will promote an open planning process

because the results of economic studies are available to all interested parties.

13. Resolution of Stakeholder Input: The Transmission Provider shall solicit input and comments from all stakeholders, including Transmission Owners, during and after stakeholder planning meetings, and will use reasonable efforts to reply to comments that the Transmission Provider does not elect to implement, together with reasons for such actions. The Transmission Provider shall develop a process for the documentation and resolution of stakeholder issues raised in the planning process, including but not limited to issues related to planning criteria.

14. Dispute resolution: Consistent with Attachment HH of this Tariff and Appendix D to the ISO Agreement, the Transmission Provider shall resolve disputes concerning MTEP issues. The first step will be for designated representatives of the affected parties to work together to resolve the relevant issues in a manner that is acceptable to all parties. If that step is unsuccessful, each affected party shall designate an officer who shall review disputes involving them that their designated representatives are unable to resolve. The applicable officers of the parties involved in such dispute shall work together to resolve the disputes so referred in a manner that meets the interests of such parties, either until such agreement is reached, or until an impasse is declared by any party to such dispute. If such officers are unable to satisfactorily resolve the issues, the matter shall be referred to mediation, in accordance with the procedures described in Appendix D to the ISO Agreement. Parties that are not satisfied with the dispute resolution procedures may only file a complaint with the Commission during the negotiation or mediation steps.

If a matter remains unresolved, the affected parties may pursue arbitration pursuant to Appendix D of the ISO Agreement.

B. Project Coordination: In the course of the MTEP process, the Transmission Provider shall seek out opportunities to coordinate or consolidate, where possible, individually defined transmission projects into more comprehensive cost-effective developments subject to the limitations imposed by prior commitments and lead-time constraints. The Transmission Provider shall coordinate with Transmission Owners, and shall consider the input from the SPMs, Planning Subcommittee, and Planning Advisory Committee to develop expansion plans to meet the needs of the system. This multi-party collaborative process will allow for all projects with regional and inter-regional impact to be analyzed for their combined effects on the Transmission System. Moreover, this collaborative process is designed to ensure that the MTEP address Transmission Issues within the applicable planning horizon in the most efficient and cost effective manner, while giving consideration to the inputs from all stakeholders. In addition to the requirements of this Attachment FF, there may be state or local procedural requirements applicable to the planning or siting of transmission facilities by the Transmission Owners. A current list of those requirements can be found on the Transmission Provider's website.

1. Transmission Owners Electing to Integrate their Local Planning Processes into the Transmission Provider's Processes: Some Transmission Owners have agreed to integrate internal planning process with the Transmission Provider's open and coordinated planning processes for all of their transmission facilities to comply with Order 890 Planning Principles instead of filing a separate Attachment K. Through this election, the local planning for all transmission

facilities of these Transmission Owners, regardless of whether the facilities are ultimately transferred to the functional control of the Transmission Provider, shall be integrated with and included in the regional planning processes of the Transmission Provider. These regional planning processes, as provided for in this Attachment FF and in additional detail in the TPBPM, ensure that the planning decisions for all such facilities are made in an open and transparent environment. This planning environment provides opportunity for input from, and review by, stakeholders of the Open Access Transmission Tariff services throughout the planning process, and is in accordance with the Planning Principles of the Order 890 Final Rule. The open and transparent planning provisions of this Attachment FF shall not preclude interaction between stakeholders and Transmission Owners prior to the submittal of proposed projects to the regional planning process.

Transmission Owners integrating local planning processes into the regional planning processes are listed in Attachment FF-4. Such Transmission Owners shall be responsible for providing the Transmission Provider with sufficient information regarding all planning activities to enable the Transmission Provider to adequately review and incorporate all of the Transmission Owner's transmission facilities into the regional planning process of the Transmission Provider, as described in Sections I.B.1.a. and I.B.1.b. of this Attachment FF.

The foregoing Transmission Owners will utilize the planning stakeholder forums of the Transmission Provider to demonstrate the need for, identify the alternatives to, and report the status of non-transferred transmission facilities using the same open, transparent and coordinated planning process provided by the Transmission

Provider for transferred facilities as described in this Attachment FF.

a. Local Planning Processes of Transmission Owners: In accordance with the ISO Agreement, each Transmission Owner engages in local system planning in order to carry out its responsibility for meeting its respective transmission needs in collaboration with the Transmission Provider subject to the requirements of applicable state law or regulatory authority. In meeting its responsibilities under the ISO Agreement, the Transmission Owners may, as appropriate, develop and propose plans involving modifications to any of the Transmission Owner's transmission facilities which are part of the Transmission System. The Transmission Owners shall include the following specific local planning steps in order to develop plans for potential inclusion in the regional plan, in accordance with the annual regional planning process as described in Section I.B.1.b. of this Attachment FF, and in accordance with the regional planning principles of Section I.A of this Attachment. In addition to the local planning steps below, Transmission Owners shall adhere to any applicable state or local regulatory planning processes.

- i. Define local study area and study horizon;
- ii. Develop appropriate power system models;
 - a) Utilize existing NERC or Transmission Provider cases to model external systems;
 - b) Insert detailed model of Transmission Owner system if required;

- c) Insert updated detailed models of neighboring system models if required; and
 - d) Verify model topology and generation.
- iii. Update loads (spatial and magnitude) in study area;
 - a) Review historical MW and MVAR data to develop growth trends;
 - b) Obtain Load forecasts from customers in study area; and
 - c) Obtain input from local distribution planners in the study area.
- iv. Perform contingency analysis using applicable Transmission Owner planning criteria;
- v. Identify any violations to planning criteria for each of study period;
- vi. Develop alternative solutions to the criteria violations and test against the planning criteria;
 - a) Obtain cost estimates for each alternative and perform economic analyses; and
 - b) Determine non-cost attributes of each alternative such as operating flexibility, robustness, among others.
- vii. Select alternative based on cost and non-cost attributes;
- viii. Submit proposed solution and list of alternatives and assumptions to the Transmission Provider;

- ix. Participate in stakeholder evaluations and discussions as a part of annual regional plan development process;
- x. Perform additional analysis as required based on feedback from stakeholder groups (SPM/PS) in the regional planning process;
- xi. Submit results of additional analysis (if performed) to the Transmission Provider for further discussion with stakeholders (SPM/PS);
- xii. Consider regional planning process results, including stakeholder feedback on needs, proposed solutions, and alternatives, in determining whether or not to proceed with implementation of Transmission Owner proposed expansions; and
- xiii. Post the planning criteria and assumptions, and power flow models used in development of each Transmission Owner's current local planning proposal in accordance with Section I.B.1.b below. To the extent that the Transmission Owner uses the Midwest ISO MTEP models in developing its list of newly proposed projects, the Transmission Owner shall indicate as per Section I.B.1.b. below, the associated MTEP model used.

The Transmission Provider will maintain a link to applicable MTEP models on its website together with instructions for accessing such models consistent with CEII criteria and suitable non-disclosure agreements. In the event that the Transmission

Owner applies its own power flow models in developing its proposed local plans, the Transmission Owner shall provide such models to the Transmission Provider for posting, or shall provide to the Transmission Provider a link to the location of such Transmission Owner model(s) and to instructions for accessing such models consistent with the Transmission Owner's CEII and non-disclosure requirements. Transmission Provider shall post on its website links to such postings on Transmission Owner's website.

b. Integration of Local Planning Processes of Transmission Owners: Transmission Owners listed on Attachment FF-4 as integrating local planning processes with those of the Transmission Provider, shall integrate proposals for transmission expansions into the regional planning process as follows. Each Transmission Owner shall submit its proposals for transmission plans to the Transmission Provider prior to the start of each regional planning cycle. Each Transmission Owner's local plan, which consists of a list of proposed projects, shall be made available on the Transmission Provider's website for review by the PAC, the PS, and the SPM participants, subject to CEII and the confidentiality provisions in this Attachment FF. Such local plans shall be posted by September 15 each year in order to provide time for written comments by stakeholders. In addition to the list of proposed projects, each Transmission Owner submitting newly proposed projects by September 15 in any MTEP annual

cycle shall provide to the Transmission Provider by June 1 of the same year identification of any Midwest ISO base power flow model used by the Transmission Owner in support of the identification of the list of proposed projects to be subsequently posted in September, or in the event that the Transmission Owner uses a non-Midwest ISO base power flow model in support of the identification of the list of proposed projects the Transmission Owner shall provide to the Transmission Provider such base power flow model or a link to the power flow model and assumptions used.

Each Transmission Owner's local planning model and associated assumptions shall be accessible on or through a link on the Transmission Provider's website for review, subject to CEII and the confidentiality provisions in this Attachment FF and consistent with section I.B.1.a. In the event that the Transmission Owner uses a non-Midwest ISO base power flow model, the Transmission Owner shall provide for posting updates if there are significant changes in the model by July 15, August 15, and September 15 of each year. Comments by stakeholders on the local planning models and assumptions that are provided to the Transmission Provider SPM Planning Contact by July 1, or August 1 or September 1 with respect to updates, shall be forwarded to the applicable Transmission Owner by July 8, August 8, or September 8, respectively. The Transmission Provider shall address any unresolved stakeholder issues through the SPM process.

Each Transmission Owner shall also provide to the Transmission Provider by June 1 of each year any updates to the posted transmission planning criteria, or a notification that the posted documents have not changed. In the event a Transmission Owner has additional significant updates to the posted transmission planning criteria, the Transmission Owner shall provide such updates for posting by July 15, August 15, and September 15 of each year.

The Transmission Provider shall post on its website the lists of newly proposed projects, criteria and assumptions, and supporting base power flow models or links to supporting base power flow models, as provided by the Transmission Owners. Initial comments by stakeholders to the proposed projects should be provided to the Transmission Provider SPM Planning Contact 45 days after the posting of local plans otherwise comments may be made pursuant to Section I.A.2.c.ii. The Transmission Provider SPM Planning Contact shall be identified on the Transmission Provider's web site page devoted to Expansion Planning. The Transmission Provider shall provide to the applicable Transmission Owner within five working days of receipt, a copy of all stakeholder comments received within 45 days of the posted information regarding Transmission Owner planning criteria and assumptions, models applied, and list of proposed projects. The Transmission Provider shall address any unresolved stakeholder issues through the SPM process. Each Transmission Owner must participate in SPMs in the respective Planning

sub-region as indicated in the Transmission Providers meeting schedule. Such SPMs shall provide input to and review of the results of the needs assessments and adequacy of plans proposed by the Transmission Owners, or by stakeholders to the planning process, or by the Transmission Provider, to best meet the needs of the sub-region.

Transmission Owners identified in Attachment FF-4, must submit to the Transmission Provider, on an annual basis and at a time to be determined by the Transmission Provider, which shall be prior to the beginning of each regional planning cycle, all proposed transmission plans for both transferred and non-transferred transmission facilities. The submitted projects of such Transmission Owners shall be considered potential alternatives to system needs identified, and as such must be submitted when initially identified as a potential system solution, in order to permit the evaluation of such projects along with other potential alternatives that may be proposed by stakeholders or the Transmission Provider, in the SPM processes. Such alternatives may include transmission, generation, and demand-side resources. The Transmission Provider will review and evaluate such alternatives on a comparable basis and select the most appropriate solution. Comparability includes the ability of the Transmission Provider to obtain contractual assurances that the selected solution will be implemented by the required in-service dates. Contractual commitments associated with transmission solutions to be constructed by Midwest ISO Transmission Owners are provided for by the ISO

Agreement.

Contractual commitments associated with generation solutions require that a generator interconnection agreement be filed with the Commission pursuant to Attachment X of this Tariff by the time the alternative transmission solution would need to be committed to in order to ensure installation on the required need date. Contractual commitments associated with demand-side resource solutions require demonstration to the Transmission Provider of an executed contract between LSE and End-Use Customers. Such demand-side contracts must be in place by the time that the transmission solution would otherwise need to be committed to in order to ensure a timely solution to the identified planning need, and must be of a sufficient duration such that a reliable solution can be assured through the planning horizon. Notwithstanding the provisions of Section VII of the ISO Agreement regarding the Transmission Provider review of Transmission Owner plans, no proposed project of a Transmission Owner that has elected to integrate their local planning processes into the Transmission Provider's processes, as indicated on Attachment FF-4, shall be recommended in the MTEP for implementation until completion of the annual needs analysis carried out in the annual MTEP cycle, as described in Section I. A. of this Attachment FF, except as provided for in Section I.B.1.c. of this Attachment FF.

c. Out-of-Cycle Review of Transmission Owner Plans: In the event that a Transmission Owner determines that system conditions warrant the

urgent development of system enhancements that would be jeopardized unless the Transmission Provider performs an expedited review of the impacts of the project, Transmission Provider shall use a streamlined approval process for reviewing and approving projects proposed by the Transmission Owners so that decisions will be provided to the Owner within thirty (30) days of the projects submittal to the Midwest ISO unless a longer review period is mutually agreed upon.

2. Transmission Owners Filing Separate Attachment K: Some Transmission Owners as listed on the last page of Attachment FF-4 have developed individual open, local planning processes for their facilities, that comply with the Planning Principles of the Order 890 Final Rule. These Transmission Owners have an Attachment K that describes how the Transmission Owner will comply with the Order No. 890 Planning Principles for all transmission facilities that they plan for, regardless of whether those facilities are ultimately transferred to the functional control of the Transmission Provider. With the exception of Sections I.B.1.a and I.B.1.b., the provisions of this Attachment FF remain applicable to all Transmission Owners notwithstanding the filing by any Transmission Owner of an Attachment K pursuant to the Order 890 Final Rule.

C. Joint Regional Planning Coordination: The MTEP shall be developed in accordance with the principles of interregional coordination through collaboration with representatives from adjacent transmission providers, their designated regional planning organizations, or regional transmission organizations, as provided for in this Attachment FF, or as otherwise provided for in existing joint agreements between the Transmission

Provider and other regional entities that engage in planning activities. The Transmission Provider has joint operating and coordination agreements with MAPPOR, as contractor for Mid-Continent Area Power Pool (“MAPP”), the PJM Interconnection (“PJM”), Southwest Power Pool (“SPP”), Tennessee Valley Authority (“TVA”), and Manitoba Hydro (Manitoba). Because TVA is non-jurisdictional, that agreement has not been submitted for Commission approval, but is available on the Transmission Provider’s public website.

1. Initial Contact: The Transmission Provider will initiate a meeting with representatives of adjacent transmission providers, their designated regional planning organizations, or regional transmission organizations with which existing joint agreements are not already established with the Transmission Provider (“Regional Planning Coordination Entities” or “RPCEs”), in order to establish a Joint Planning Committee.
2. Joint Planning Committee. The Transmission Provider shall offer to form a Joint Planning Committee (“JPC”) with the RPCE. The JPC shall be comprised of representatives of the Transmission Provider and the RPCE in numbers and functions to be identified from time to time. The JPC may combine with or participate in similarly established joint planning committees amongst multiple RPCEs or established under joint agreements to which the Transmission Provider is a signatory, for the purpose of providing for broader and more effective inter-regional planning coordination. The JPC shall have a Chairman. The Chairman shall be responsible for: the scheduling of meetings; the preparation of agendas for meetings; the production of minutes of meetings; and for chairing JPC

meetings. The Chairmanship shall rotate amongst the Transmission Provider and the RPCEs on a mutually agreed to schedule, with each party responsible for the Chairmanship for no more than one planning study cycle in succession. The JPC shall coordinate planning of the systems of the Transmission Provider and the RPCEs, including the following:

- a. Coordinate the development of common power system analysis models to perform coordinated system planning studies including power flow analyses and stability analyses. For studies of interconnections in close electrical proximity at the boundaries among the systems of the Transmission Provider and the RPCEs the JPC or its designated working group will coordinate the performance of a detailed review of the appropriateness of applicable power system models.
- b. Conduct, on a regular basis, a Coordinated Regional Transmission Planning Study (CRTPS), as set forth in Section 8.3.4.
- c. Coordinate planning activities under this Section 8, including the exchange of data and developing necessary report and study protocols.
- d. Maintain an Internet site and e-mail or other electronic lists for the communication of information related to the coordinated planning process. Such sites and lists may be integrated with those existing for the purpose of communicating the open and transparent planning processes of the Transmission Provider.
- e. Meet at least semi-annually to review and coordinate transmission planning activities.

f. Establish working groups as necessary to address specific issues, such as the review and development of the regional plans of the RPCE and the Transmission Provider, and localized seams issues.

g. Establish a schedule for the rotation of responsibility for data management, coordination of analysis activities, report preparation, and other activities.

3. Data and Information Exchange. The Transmission Provider shall make available to each RPCE the following planning data and information. Unless otherwise indicated, such data and information shall be provided annually. The Transmission Provider shall provide such data in accordance with the applicable CEII policy, and maintain data and information received from each RPCE in accordance with their applicable confidentiality policies.

a. Data required for the development of power flow cases, and stability cases, incorporating up to a ten year load forecasts as may be requested, including all critical assumptions that are used in the development of these cases.

b. Fully detailed planning models (up to the next ten (10) years as requested) on an annual basis and updates as necessary to perform coordinated studies that reflect system enhancement changes or other changes.

c. The regional plan documents, any long-term or short-term reliability assessment documents, and any operating assessment reports produced by the Transmission Provider and the RPCE.

- d. The status of expansion studies, system impact studies and generation interconnection studies, such that the Transmission Provider and the RPCE have knowledge that a commitment has been made to a system enhancement as a result of any such studies.
- e. Transmission system maps for the Transmission Provider and the RPCE bulk transmission systems and lower voltage transmission system maps that are relevant to the coordination of planning between or among the systems.
- f. Contingency lists for use in load flow and stability analyses, including lists of all contingency events required by applicable NERC or Regional Entity planning standards, as well as breaker diagrams for the portions of the Transmission Provider and the RPCE transmission systems that are relevant to the coordination of planning between or among the systems. Breaker diagrams to be provided on an as requested basis.
- g. The timing of each planned enhancement, including estimated completion dates, and indications of the likelihood that a system enhancement will be completed and whether the system enhancement should be included in system expansion studies, system impact studies and generation interconnection studies, and as requested the status of related applications for regulatory approval. This information shall be provided at the completion of each planning cycle of the Transmission Provider, and more frequently as necessary to indicate changes in status that may be important to the RPCE system.

h. Quarterly identification of interconnection requests that have been received and any long-term firm transmission services that have been approved, that may impact the operation of the Transmission Provider or the RPCE system.

i. Quarterly, the status of all interconnection requests that have been identified.

j. Information regarding long-term firm transmission services on all interfaces relevant to the coordination of planning between or among the systems.

k. Load flow data initially will be exchanged in PSS/E format. To the extent practical, the maintenance and exchange of power system modeling data will be implemented through databases. When feasible, transmission maps and breaker diagrams will be provided in an electronic format agreed upon by the Transmission Provider and the RPCE. Formats for the exchange of other data will be agreed upon by the Transmission Provider and the RPCE.

4. Coordinated System Planning. The Transmission Provider shall agree to coordinate with the RPCEs studies required to assure the reliable, efficient, and effective operation of the transmission system. Results of such coordinated studies will be included in the Coordinated System Plan. The Transmission Provider shall agree to conduct with the RPCEs such coordinated planning as set forth below

a. Single Entity Planning. The Transmission Provider shall engage in

such transmission planning activities, including expansion plans, system impact studies, and generator interconnection studies, as necessary to fulfill its obligations under the Tariff. Such planning shall conform to applicable reliability requirements of NERC, applicable regional reliability councils, and any successor organizations thereto.

Such planning shall also conform to any and all applicable requirements of Federal or State regulatory authorities. The Transmission Provider will prepare a regional transmission planning report that documents the procedures, methodologies, and business rules utilized in preparing and completing the report. The Transmission Provider shall agree to share the transmission planning reports and assessments with each RPCE, as well as any information that arises in the performance of its individual planning activities as is necessary or appropriate for effective coordination among the Transmission Provider and the RPCEs on an ongoing basis. The Transmission Provider shall provide such information to the RPCEs in accordance with the applicable CEII policy and shall maintain such information received from the RPCEs in accordance with their applicable confidentiality policies.

b. Analysis of Interconnection Requests. In accordance with the procedures under which the Transmission Provider provides interconnection service, the Transmission Provider will agree to coordinate with each RPCE the conduct of any studies required in determining the impact of a request for generator or merchant transmission

interconnection. Results of such coordinated studies will be included in the impacts reported to the interconnection customers as appropriate.

Coordination of studies shall include the following:

- i. When the Transmission Provider receives a request under its interconnection procedures for interconnection, it will determine whether the interconnection potentially impacts the system of a RPCE. In that event, the Transmission Provider will notify the RPCE and convey the information provided in the interconnection queue posting. The Transmission Provider will provide the study agreement to the interconnection customer in accordance with applicable procedures.
- ii. If the RPCE determines that it may be materially impacted by an interconnection on the Transmission Provider System, the RPCE may request participation in the applicable interconnection studies. The Transmission Provider will coordinate with the RPCE with respect to the nature of studies to be performed to test the impacts of the interconnection on the RPCE System, and who will perform the studies. The Transmission Provider will strive to minimize the costs associated with the coordinated study process undertaken by agreement with the RPCE.
- iii. Any coordinated studies associated with requests for

interconnection to the Transmission Provider's system will be performed in accordance with the study timeline requirements and scope of the applicable generation interconnection procedures of the Transmission Provider.

- iv. The RPCE may participate in the coordinated study either by taking responsibility for performance of studies of its system, if deemed reasonable by the Transmission Provider, or by providing input to the studies to be performed by the Transmission Provider. The study cost estimates indicated in the study agreement between the Transmission Provider and the interconnection customer, will reflect the costs, and the associated roles of the study participants including the RPCE. The Transmission Provider will review the cost estimates and scope submitted by all participants for reasonableness, based on expected levels of participation, and responsibilities in the study. If the RPCE agrees to perform any aspects of the study, the RPCE must comply with the timelines and schedule of the Transmission Provider's interconnection procedures.
- v. The Transmission Provider will collect from the interconnection customer the costs incurred by the RPCE associated with the performance of such studies and forward collected amounts, no later than thirty (30) days

after receipt thereof, to the RPCE. Upon the reasonable request of the RPCE, the Transmission Provider will make their books and records available to the requestor pertaining to such requests for collection and receipt of collected amounts.

- vi. The Transmission Provider will report the combined list of any transmission infrastructure improvements on either the RPCE and/or the Transmission Provider's system required as a result of the proposed interconnection.
- vii. Construction and cost responsibility associated with any transmission infrastructure improvements required as a result of the proposed interconnection shall be accomplished under the terms of the applicable OATT, Transmission Service Guidelines, controlling agreements, and consistent with applicable Federal or State regulatory policy and applicable law.
- viii. Each transmission provider will maintain separate interconnection queues. The JPC will maintain a composite listing of interconnection requests for all interconnection projects that have been identified as potentially impacting the systems of the Transmission Provider and coordinating RPCEs. The JPC will post this listing on the Internet site maintained for the

communication of information related to the coordinated system planning process.

c. Analysis of Long-Term Firm Transmission Service Requests. In accordance with applicable procedures under which the Transmission Provider provides long-term firm transmission service, the Transmission Provider will coordinate the conduct of any studies required to determine the impact of a request for such service. Results of such coordinated studies will be included in the impacts reported to the transmission service customers as appropriate. Coordination of studies will include the following:

- i. The Transmission Provider will coordinate the calculation of ATC values associated with the service, based on contingencies on their systems that may be impacted by the granting of the service.
- ii. When the Transmission Provider receives a request for long-term firm transmission service, it will determine whether the request potentially impacts the system of the RPCE. If the Transmission Provider determines that the RPCE system is potentially impacted, and that the RPCE would not receive a transmission service request to complete the service path, the transmission provider will notify the RPCE and convey the information provided in the posting.

- iii. If the RPCE determines that its system may be materially impacted by granting the service, it may contact the Transmission Provider and request participation in the applicable studies. The Transmission Provider will coordinate with the RPCE with respect to the nature of studies to be performed to test the impacts of the requested service on the RPCE system, and will strive to minimize the costs associated with the coordinated study process. The JPC will develop screening procedures to assist in the identification of service requests that may impact systems of the JPC members other than the transmission provider receiving the request.
- iv. Any coordinated studies for request on the transmission Provider's system will be performed in accordance with the study timeline and scope requirements of the applicable transmission service procedures of the Transmission Provider.
- v. The RPCE may participate in the coordinated study either by taking responsibility for performance of studies of its system, if deemed reasonable by the Transmission Provider or by providing input to the studies to be performed by the Transmission Provider. The study cost estimates indicated in the study agreement between the Transmission Provider

and the transmission service customer will reflect the costs and the associated roles of the study participants. The Transmission Provider will review the cost estimates and scope submitted by all participants for reasonableness, based on expected levels of participation and responsibilities in the study.

vi. The Transmission Provider will collect from the transmission service customer, and forward to the RPCE, the costs incurred by the RPCE with the performance of such studies.

vii. The Transmission Provider receiving the request will identify any transmission infrastructure improvements required as a result of the transmission service request.

viii. Construction and cost responsibility associated with any transmission infrastructure improvements required as a result of the transmission service request shall be accomplished under the terms of the applicable OATT, Transmission Service Guidelines, controlling agreements, and consistent with applicable Federal or State regulatory policy and applicable law.

d. Coordinated Regional Transmission Planning Study: The Transmission Provider agrees to participate in the conduct of a periodic Coordinated Regional Transmission Planning Study (CRTPS). The CRTPS shall have as input the

results of ongoing analyses of requests for interconnection and ongoing analyses of requests for long-term firm transmission service. The Parties shall coordinate in the analyses of these ongoing service requests in accordance with Sections 8.3.2 and 8.3.3. The results of the CRTPS shall be an integral part of the expansion plans of each Party. Construction of upgrades on the Transmission System of the Transmission Provider that are identified as necessary in the CRTSP shall be under the terms of the Owners Agreement of the Transmission Provider, applicable to the construction of upgrades identified in the expansion planning process. Coordination of studies required for the development of the Coordinated System Plan will include the following:

- i. Every three years, the Transmission Provider shall participate in the performance of a CRTPS. Sensitivity analyses will be performed, as required, during the off years based on a review by the JPC of discrete reliability problems or operability issues that arise due to changing system conditions.
- ii. The CRTPS shall identify all reliability and expansion issues, and shall propose potential resolutions to be considered by The Transmission Provider and the coordinating RPCEs.
- iii. As a result of participation in the CRTPS, except as provided for in Section II. A. 1., the Transmission Provider is not obligated in any way to construct, finance, operate, or

otherwise support any transmission infrastructure improvements or other transmission-related projects identified in the CRTPS. Any decision to proceed with any transmission infrastructure improvements or other transmission-related projects identified in the CRTPS shall be based on the applicable reliability, operational and economic planning criteria established for the Transmission Provider as applicable to the development of the MTEP and set forth in this Attachment FF.

- iv. As a result of participation in the CRTPS, the RPCEs are not entitled to any rights to financial compensation due to the impact of the transmission plans of the Transmission Provider upon the RPCE system, including but not limited to its decisions whether or not to construct any transmission infrastructure improvements or other transmission-related projects identified in the CRTPS.
- v. The JPC will develop the scope and procedure for the CRTPS. The scope of the CRTPSs performed over time will include evaluations of the transmission systems against reliability criteria, operational performance criteria, and economic performance criteria applicable to the Transmission Provider and the RPCEs.
- vi. In the conduct of the CRTPS, the Transmission Provider

and the coordinating RPCEs will use planning models that are developed in accordance with the procedures to be established by the JPC. Exchange of power flow models will be in a format that is acceptable to the coordinating parties.

- vii. **Stakeholder Review Processes.** The Transmission Provider, in coordination with coordinating RPCEs shall review the scope and results of the CRTPS with impacted stakeholders, and shall modify the study scope as deemed appropriate by the Transmission Provider in agreement with the coordinating RPCEs, after receiving stakeholder input. Such reviews will utilize the existing planning stakeholder forums of the coordinating parties including as applicable joint Sub Regional Planning Meetings.

II. Development Process for MTEP Projects: The Transmission Provider will develop the MTEP biennially or more frequently. The MTEP will identify expansion projects for inclusion in the MTEP according to the factors set forth in Appendix B of the ISO Agreement and Section I.A. of this Attachment FF. For purposes of assigning cost responsibility, expansion projects in the MTEP shall be categorized pursuant to the following criteria.

- A. Reliability Needs:** Reliability projects are identified either in the periodically performed Baseline Reliability Study, or in Facilities Studies associated with the request processes for new transmission access. Transmission access includes requests for both new transmission delivery service and new generation interconnection service.

1. Baseline Reliability Projects: Baseline Reliability Projects are Network Upgrades identified in the base case as required to ensure that the Transmission System is in compliance with applicable national Electric Reliability Organization (“ERO”) reliability standards and reliability standards adopted by Regional Reliability Organizations and applicable within the Transmission Provider Region. Baseline Reliability Projects include projects that are needed to maintain reliability while accommodating the ongoing needs of existing Market Participants and Transmission Customers. Baseline Reliability Projects may consist of a number of individual facilities that in the judgment of the Transmission Provider constitute a single project for cost allocation purposes. The Transmission Provider shall collaborate with Transmission Owning members, other transmission providers, Transmission Customers, and other stakeholders to develop appropriate planning models that reflect expected system conditions for the planning horizon. The planning models shall reflect the projected load growth of existing network customers and other transmission service and interconnection commitments, and shall include any transmission projects identified in Service Agreements or interconnection agreements that are entered into in association with requests for transmission delivery service or transmission interconnection service, as determined in Facilities Studies associated with such requests. The Transmission Provider shall test the MTEP for adequacy and security based on commonly applicable national Electric Reliability Organization (“ERO”) standards, and under likely and possible dispatch patterns of actual and projected Generation Resources within the Transmission System and

of external resources, including dispatch reflective of Long-Term Transmission Rights of Transmission Customers, and shall produce an efficient expansion plan that includes all Baseline Reliability Projects determined by the Transmission Provider to be necessary through the planning horizon of the MTEP. The Transmission Provider shall obtain the approval of the Transmission Provider Board, as set forth in Section VI, for each MTEP published.

2. New Transmission Access Projects: New Transmission Access Projects are defined for the purposes of Attachment FF as Network Upgrades identified in Facilities Studies and agreements pursuant to requests for transmission delivery service or transmission interconnection service under the Tariff. New Transmission Access Projects include projects that are needed to maintain reliability while accommodating the incremental needs associated with requests for new transmission or interconnection service, as determined in Facilities Studies associated with such requests. New Transmission Access Projects may consist of a number of individual facilities, which in the judgment of the Transmission Provider constitute a single project for cost allocation purposes. New Transmission Access Projects are either Generation Interconnection Projects or Transmission Delivery Service Projects as defined in Sections II.A.2.a. and II.A.2.b. The Transmission Provider shall consider the Baseline Reliability Projects already determined to be needed in the most current MTEP, as well as any other base-case needs not associated with the request for new service that may be identified during the impact study process when determining the need for New Transmission Access Projects. Any identified base-case needs determined

in the impact study process that are not a part of the Baseline Reliability Projects already identified in the most current MTEP shall become new Baseline Reliability Projects and shall be included in the next MTEP. New Transmission Access Projects identified in Facilities Studies and agreements pursuant to requests for transmission delivery service or transmission interconnection service under this Tariff shall be included in the next MTEP.

a. **Generation Interconnection Projects:** Generation Interconnection Projects are New Transmission Access Projects that are associated with interconnection of new, or increase in generating capacity of existing, generation under Attachments X to this Tariff.

b. **Transmission Delivery Service Projects:** Transmission Delivery Service Projects are New Transmission Access Projects that are needed to provide for requests for new Point-To-Point Transmission Service, or requests under Module B of the Tariff for Network Service or a new designation of a Network Resource(s).

B. Market Efficiency Projects: Market Efficiency Projects are Network Upgrades: (i) that are proposed by the Transmission Provider, Transmission Owner(s), ITC(s), Market Participant(s), or regulatory authorities; (ii) that are found to be eligible for inclusion in the MTEP or are approved pursuant to Appendix B, Section VII of the ISO Agreement after June 16, 2005, applying the factors set forth in Section I.A. of this Attachment FF; (iii) that have a Project Cost of \$5 million or more; (iv) that involve facilities with voltages of 345 kV or higher¹; and that may include any lower voltage facilities of 100kV or above that collectively constitute less than fifty percent (50%) of the combined project cost, and without which the 345 kV or higher

facilities could not deliver sufficient benefit to meet the required benefit-to-cost ratio threshold for the project as established in Section II.B.1.e, or that otherwise are needed to relieve applicable reliability criteria violations that are projected to occur as a direct result of the development of the 345 kV or higher facilities of the project; (v) that are not determined to be Multi Value Projects; and (vi) that are found to have regional benefits under the criteria set forth in Section II.B.1 of this Attachment FF.

1. Criteria to Determine Whether a Project Should be Included as a Market Efficiency Project: The Transmission Provider shall employ multiple future scenarios and multi-year analysis including sensitivity analyses guided by input from the Planning Advisory Committee to evaluate the anticipated benefits of a proposed Market Efficiency Project in order to determine if such a project meets the criteria for inclusion in the regional plan as a Market Efficiency Project eligible for regional cost sharing. Sensitivity analyses shall include, among other factors, consideration of: (i) variations in amount, type, and location of future generation supplies as dictated by future scenarios developed with stakeholder input and guidance; (ii) alternative transmission proposals; (iii) impacts of variations in load growth; and (iv) effects of demand response resources on transmission benefits.

¹ Transformer voltage is defined by the voltage of the low-side of the transformer for these purposes.

The Transmission Provider shall perform this inclusion analysis as follows:

a. The Transmission Provider shall utilize a weighted futures, no loss (“WFNL”) metric to analyze the anticipated annual economic benefits of construction of a proposed Market Efficiency Project to Transmission Customers in each of the Local Resource Zones, as defined in Attachment WW, based upon adjusted production cost (“APC”) savings. APC savings will be calculated as the difference in total production cost of the Resources in each Local Resource Zone adjusted for import costs and export revenues with and without the proposed Market Efficiency Project as part of the Transmission System. The WFNL metric for each Local Resource Zone shall be calculated using the weighted APC savings determined for each future scenario included in the analysis.

i. The WFNL metric shall utilize the future scenarios determined and identified by the Transmission Provider through the planning process, with input from all stakeholders. The weights applied to the results of each future scenario shall also be determined by the Transmission Provider with input from all stakeholders.

b. Project benefit evaluations will include benefits for the first 20 years of project life after the projected in-service date, with a maximum planning horizon of 25 years from the approval year. The annual benefit for a proposed Market Efficiency Project shall be determined as the sum of the WFNL values for each Local Resource Zone, as defined in Attachment WW. The total project benefit shall be determined by calculating the present value of annual benefits for the multiple year scenarios and multi-year evaluations.

c. The costs applied in the benefit to cost ratio shall be the present value, over the

same period for which the project benefits are determined, of the annual Network Upgrade Charges for the project as determined in accordance with the formula in Attachment GG for the Transmission Owner constructing the proposed Market Efficiency Project.

d. The present value calculation for both the annual benefits and annual costs will apply a discount rate representing the after-tax weighted average cost of capital of the Transmission Owners that make up the Transmission Provider Transmission System.

e. The Transmission Provider shall employ a benefit to cost ratio test to evaluate a proposed Market Efficiency Project. Only projects that meet a benefit to cost ratio of 1.25 or greater shall be included in the MTEP as a Market Efficiency Project and be eligible for regional cost sharing.

f. The benefits of the project and the cost allocations as a percentage of project cost shall be determined one time at the time that the project is presented to the Transmission Provider Board for approval. Estimated Project Cost will be used to estimate the benefit to cost ratio and the eligibility for cost sharing at the time of project approval. To the extent that the Commission approves the collection of costs in rates for Construction Work in Progress (“CWIP”) for a constructing Transmission Owner, costs will be allocated and collected prior to completion of the project.

g. The aforementioned Market Efficiency Project inclusion criteria shall be used for the exclusive purpose of determining whether projects are eligible for regional cost sharing in accordance with Section III.A.2.f below. These criteria shall not affect the existing criteria set forth in Appendix B of the ISO Agreement for determining whether projects are eligible for inclusion in the MTEP. Moreover, the costs of projects included in the MTEP,

but not eligible for regional cost sharing, shall continue to be eligible for inclusion in the calculation of Transmission Owner revenue requirements under Attachment O of this Tariff.

C. Multi Value Projects: A Multi Value Project is one or more Network Upgrades that address a common set of Transmission Issues and satisfy the conditions listed in Sections II.C.1, II.C.2., and II.C.3 of Attachment FF. All Network Upgrades associated with a Multi Value Project including any lower voltage facilities that may be needed to relieve applicable reliability criteria violations that are projected to occur as a direct result of the development of the Multi Value Project; may be cost shared per Section III.A.2.g of Attachment FF except for i) any Network Upgrade cost associated with constructing an underground or underwater transmission line above and beyond the cost of a feasible alternative overhead transmission line that provides comparable regional benefits, and ii) any DC transmission line and associated terminal equipment when scheduling and dispatch of the DC transmission line is not turned over to the Transmission Provider's markets, real-time control of the DC transmission line is not turned over to the Transmission Provider's automatic generation control system and/or the DC transmission line is operated in a manner that requires specific users to subscribe for DC transmission service.

1. A Multi Value Project must be evaluated as part of a Portfolio of projects, as designated in the transmission expansion planning process, whose benefits are spread broadly across the footprint.

2. A Multi Value Project must meet one of the three criteria outlined below:

- a. Criterion 1. A Multi Value Project must be developed through the transmission expansion planning process for the purpose of enabling

the Transmission System to reliably and economically deliver energy in support of documented energy policy mandates or laws that have been enacted or adopted through state or federal legislation or regulatory requirement that directly or indirectly govern the minimum or maximum amount of energy that can be generated by specific types of generation. The MVP must be shown to enable the transmission system to deliver such energy in a manner that is more reliable and/or more economic than it otherwise would be without the transmission upgrade.

- b. Criterion 2. A Multi Value Project must provide multiple types of economic value across multiple pricing zones with a Total MVP Benefit-to-Cost ratio of 1.0 or higher where the Total MVP Benefit - to-Cost ratio is described in Section II.C.7 of this Attachment FF. The reduction of production costs and the associated reduction of LMPs resulting from a transmission congestion relief project are not additive and are considered a single type of economic value.
- c. Criterion 3. A Multi Value Project must address at least one Transmission Issue associated with a projected violation of a NERC or Regional Entity standard and at least one economic-based Transmission Issue that provides economic value across multiple pricing zones. The project must generate total financially quantifiable benefits, including quantifiable reliability benefits, in excess of the total project costs based on the definition of financial

benefits and Project Costs provided in Section II.C.7 of Attachment FF.

3. All of the following conditions must be satisfied in order for a project to be classified as a Multi Value Project:

- a. Facilities associated with the transmission project must not be in service, under construction, or approved for construction by the Transmission Provider Board prior to July 16, 2010 or the date a Transmission Owner becomes a signatory member of the ISO Agreement, whichever is later.
- b. The transmission project must be evaluated through the Transmission Provider's transmission planning process and approved for construction by the Transmission Provider Board prior to the start of construction, where construction does not include preliminary site and route selection activities.
- c. The transmission project must not contain any transmission facilities listed in Attachment FF-1 of this Tariff.
- d. The total capital cost of the transmission project must be greater than or equal to the lesser of \$20,000,000.00 or 5% of the constructing Transmission Owner's net transmission plant as reported in Attachment O of the Tariff at the time the transmission project is approved in an MTEP.
- e. The transmission project must include, but not necessarily be limited to, the construction or improvement of transmission facilities

operating at voltages above 100 kV. A transformer is considered to operate above 100 kV when at least two sets of transformer terminals operate at voltages above 100 kV.

- f. Network Upgrades driven solely by an Interconnection Request, as defined in Attachment X of the Tariff, or a Transmission Service request will not be considered Multi Value Projects.
4. Any transmission project that qualifies as a Multi-Value Project shall be classified as an MVP irrespective of whether such project is also a Baseline Reliability Project and/or Market Efficiency Project.
 5. The specific types of economic value provided by a Multi Value Project include the following:
 - a. Production cost savings where production costs include generator startup, hourly generator no-load, generator energy and generator Operating Reserve costs. Production cost savings can be realized through reductions in both transmission congestion and transmission energy losses. Productions cost savings can also be realized through reductions in Operating Reserve requirements within Reserve Zones and, in some cases, reductions in overall Operating Reserve requirements for the Transmission Provider.
 - b. Capacity losses savings where capacity losses represent the amount of capacity required to serve transmission losses during the system peak hour including associated planning reserve.
 - c. Capacity savings due to reductions in the overall Planning Reserve

Margins resulting from transmission expansion.

- d. Long-term cost savings realized by Transmission Customers by accelerating a long-term project start date in lieu of implementing a short-term project in the interim and/or long-term cost savings realized by Transmission Customers by deferring or eliminating the need to perform one or more projects in the future.
- e. Any other financially quantifiable benefit to Transmission Customers resulting from an enhancement to the Transmission System and related to the provisions of Transmission Service.

6. Any project to facilitate like-for-like capital replacements of plant originally installed as part of a Multi Value Project where replacement is due to aging, failure, damage or relocation requirements where such replacement is not the result of negligence by the constructing Transmission Owner will be treated as a Multi Value Project. The minimum project cost limitation for Multi Value Projects described in Section II.C.3.d of Attachment FF will not apply to the like for- like capital replacement projects described in this Section.

7. The following Total MVP Benefit-to-Cost Ratio will be applied to any Multi Value Project justified solely on the basis of Sections II.C.2.b or II.C.2.c of this Attachment FF to ensure such project qualifies as a Multi Value Project:

$$\text{Total MVP Benefit-to-Cost Ratio} = \text{financial benefits} / \text{Project Costs.}$$

For the purpose of this calculation, Financial Benefits will be set equal to the present value of all financially quantifiable benefits provided by the project projected for the first 20 years of the project's life and 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.

8. The aforementioned Multi Value Project inclusion criteria shall be used for the exclusive purpose of determining whether projects are eligible for regional cost sharing in accordance with Section III.A.2.g below. These criteria shall not affect the existing criteria set forth in Appendix B of the ISO Agreement for determining whether projects are eligible for inclusion in the MTEP. Moreover, the costs of projects included in the MTEP, but not eligible for regional cost sharing, shall continue to be eligible for inclusion in the calculation of Transmission Owner revenue requirements under Attachment O of this Tariff.

III. Designation of Cost Responsibility for MTEP Projects: Based on the planning analysis performed by the Transmission Provider, which shall take into consideration all appropriate input from Market Participants or external entities, including, but not limited to, any indications of a willingness to bear cost responsibility for an enhancement or expansion, the recommended MTEP shall, for any enhancement or expansion that is included in the plan, designate: (i) the Market Participant(s) in one or more pricing zones that will bear cost responsibility for such enhancement or expansion, as and to the extent provided by any applicable provision of the Tariff, including Attachments N, X, or any applicable cost allocation method ordered by the Commission; or, (ii) in the event and to the extent that no provision of the Tariff so assigns cost responsibility, the Market Participant(s) or Transmission Customer(s) in one or more pricing zones from which the cost of such enhancements or expansions shall be recovered through charges established pursuant to Attachment GG of this Tariff, or as otherwise provided for under this Attachment FF.

Any designation under clause (ii) of the preceding sentence shall be determined as provided for in Section III.A and III.B of this Attachment FF. For all such designations, the Transmission Provider shall calculate the cost allocation impacts to each pricing zone. The results will be reviewed for unintended consequences by the Transmission Provider and the Tariff Working Group and any such identified consequences shall be reported to the Planning Advisory Committee, and the OMS.

A. Allocation of Costs Within the Transmission Provider Region

1.Default Cost Allocation: Except as otherwise provided for in this Attachment FF, or by any other applicable provision of this Tariff and consistent with the ISO Agreement, the responsibility for Network Upgrades included in the approved MTEP will be addressed in accordance with the provisions of the ISO Agreement.

2.Cost Allocation: The Transmission Provider will designate and assign cost responsibility on a regional, and sub-regional basis for Network Upgrades identified in the MTEP subject to the grand-fathered project provisions of Section III.A.2.b.

- a. Market Participant's Option to Fund: Notwithstanding the Transmission Provider's assignment of cost responsibility for a project included in the MTEP, one or more Market Participants may elect to assume cost responsibility for any or all costs of a Network Upgrade that is included in the MTEP. Provided however, in the event the Market Participant is also a Transmission Owner such election of the option to fund must be made on a consistent, non-discriminatory basis.
- b. Grandfathered Projects: The cost allocation provisions of this

Attachment FF shall not be applicable to transmission projects identified in Attachment FF-1, which is based on the list of projects designated as Planned Projects in the MTEP approved by the Transmission Provider Board on June 16, 2005 (MTEP 05) and some additions of proposed projects that the Transmission Provider has determined to be in the advanced stages of planning.

c. **Baseline Reliability Projects: Costs of Baseline Reliability**
Projects shall be recovered pursuant to Attachment O of this Tariff by the Transmission Owner(s) and/or ITC(s) developing such projects, subject to the requirements of the ISO Agreement.

d. **Generation Interconnection Projects: Costs of Generation**
Interconnection Projects that are not determined by the Transmission Provider to be Baseline Reliability Projects, Market Efficiency Projects, or Multi-Value Projects, and the Network Upgrade costs associated with advancing a Baseline Reliability Project, Market Efficiency Project, or Multi-Value Project associated with a generator interconnection will be paid for by the Interconnection Customer(s) in accordance with Attachment X. For Generator Interconnection Projects interconnecting to the American Transmission Company LLC transmission system, such costs will be subject to the provision of Attachment FF – ATCLLC.

1) For Network Upgrades to facilities in voltage classes at or

above 345 kV, the Interconnection Customer shall be repaid 10 percent of the costs of the Generation Interconnection Project funded by the Interconnection Customer once Commercial Operation is achieved. The Transmission Owner(s) constructing the Generation Interconnection Project will repay 10% of the Generation Interconnection Project costs associated with Network Upgrade facilities in a voltage class of 345 kV or greater to the Interconnection Customer under repayment terms consistent with the schedules and other terms of Attachment X.

The 10% of the Project Cost associated with Network Upgrade facilities of voltage class 345 kV or above and repaid to the Interconnection Customer shall be allocated on a system-wide basis and recovered pursuant to Attachment GG of this Tariff.

- 2) An Interconnection Customer may be required to contribute to the cost of Shared Network Upgrades, as defined in Attachment X to the Tariff, that are funded by another Interconnection Customer as a Generator Interconnection Project pursuant to Attachment X.

Each Interconnection Customer with one or more Shared Network Upgrade(s) identified in Appendix A of its

Generator Interconnection Agreement shall make a one-time payment under Schedule 26-B to the Transmission Provider in accordance with the terms in the Generator Interconnection Agreement. The one-time payment will reflect the cost of the Shared Network Upgrade assigned to the Interconnection Customer as determined by the Transmission Provider.

All revenue collected by the Transmission Provider through Schedule 26-B shall be distributed to the appropriate Interconnection Customer(s).

- 3) The Interconnection Customer shall be entitled, pursuant to Section 46 of this Tariff, to any Financial Transmission Rights or other rights to the extent provided for under this Tariff, for any Network Upgrade costs funded by or charged to the Interconnection Customer and not subject to repayment under the provisions of this Section III.A.2.d. In the event that a Generator Interconnection Project defers or displaces a Baseline Reliability Project, the costs of the Generator Interconnection Project up to the costs of the deferred or displaced Baseline Reliability Project shall be allocated consistent with the cost allocation for the Baseline Reliability Project.
- 4) International Transmission/Michigan Electric Transmission

Company/ITC Midwest LLC:

(a) For those Generator Interconnection Projects for which International Transmission Company, Michigan Electric Transmission Company, LLC, or ITC Midwest LLC (“International” or “METC” or “ITC Midwest”) as Transmission Owners will be a signatory to the interconnection agreement under the terms of Attachment X of this Tariff or any successor provision of the Tariff executed by the parties after the effective date of this Attachment FF Section III.A.2.d.4, this Attachment FF Section III.A.2.d.4 shall apply, except that, where ITC Midwest is the Transmission Owner, the Interconnection Customer may elect to have another approved methodology under Attachment FF Section III.A.2.d apply.

(b) Generation Interconnection Projects: The cost of Network Upgrades for Generation Interconnection Projects that are not determined by the Transmission Provider to be Baseline Reliability Projects shall be reimbursed by the Transmission Owner as provided in this Section III.A.2.d.4. All costs of Network Upgrades for Generation Interconnection Projects will initially be paid by the Interconnection Customer in accordance with the terms of the Interconnection Agreement entered into pursuant to

Attachment X of this Tariff. To the extent the Interconnection Customer demonstrates at the time of Commercial Operation of the Generating Facility one of the following:

- i. Generating Facility has been designated as a Network Resource in accordance with the Tariff, or
- ii. Contractual commitment has been entered into with a Network Customer for capacity, or in the case of an Intermittent Resource, for energy, from the Generating Facility for a period of one (1) year or longer.

The Interconnection Customer will receive up to one hundred percent (100%) reimbursement of reimbursable costs within ninety (90) days of the Commercial Operation Date, such reimbursement prorated by the percentage of the Generating Facility capacity or annual available energy output contracted for and as demonstrated to the satisfaction of the Transmission Provider.

If the Interconnection Customer is unable to demonstrate to the satisfaction of the Transmission Provider at the time of Commercial Operation of the Generating Facility that the Generating Facility has met the

repayment obligations set forth in Attachment FF Sections III.A.2.d.4.b.i. or III.A.2.d.4.b.ii. the Interconnection Customer shall be directly assigned 100% of the costs of the Generation Interconnection Project. The Transmission Owner may effect this direct assignment of costs by either foregoing any repayment of costs funded by the Interconnection Customer, or by electing to repay 100% of the costs under repayment terms consistent with the schedules and other terms of Attachment X.

The Interconnection Customer shall be entitled, pursuant to Section 46 of this Tariff, to any Financial Transmission Rights or other rights to the extent provided for under this Tariff, for any Network Upgrade costs funded by or charged to the Interconnection Customer and not subject to repayment under the provisions of this Attachment FF Section III.A.2.d.4. In the event that a Generator Interconnection Project defers or displaces a Baseline Reliability Project, the costs of the Generator Interconnection Project up to the costs of the deferred or displaced Baseline Reliability Project shall be allocated consistent with the cost allocation for the Baseline Reliability Project.

(c) For all amounts to be reimbursed by a Transmission

Owner to an Interconnection Customer in accordance with this Attachment FF Section III.A.2.d.4, the Transmission Owner will reimburse the sums received from the Interconnection Customer in cash together with any applicable interest, in accordance with the terms of the Interconnection Agreement.

(d) Allocation of Generator Interconnection

Reimbursement. For all amounts reimbursed by a Transmission Owner to an Interconnection Customer under this Attachment FF Section III.A.2.d.4, fifty percent (50%) of the reimbursement will be allocated consistent with the allocations under this Attachment FF Sections III.A.2.c.i and III.A.2.c.ii, except that such costs associated with Generation Interconnection Projects of less than 100 kV voltage class shall also be allocated consistent with Section III.A.2.c.i. The remaining fifty percent (50%) of the reimbursement will not be subject to any regional or sub-regional cost allocation, but will be recovered by that Transmission Owner under its Attachment O transmission rate formula under this Tariff.

- e. Transmission Delivery Service Projects: Costs of Transmission Delivery Service Projects shall be assigned and recovered in accordance with Attachment N of this Tariff.

f. Market Efficiency Projects: Costs of Market Efficiency Projects shall be allocated as follows:

- i) Twenty percent (20%) of the Project Cost of the Market Efficiency Project shall be allocated on a system-wide basis to all Transmission Customers and recovered through a system-wide rate.
- ii) Eighty percent (80%) of the costs of the Market Efficiency Projects shall be allocated to all Transmission Customers in each of the Local Resource Zones, as defined in Attachment WW. The cost allocated to each Local Resource Zone shall be based on the relative benefit determined for each Local Resource Zone that has a positive present value of annual benefits over the evaluation period using the methodology for project benefit determination of Section II.B.1.
- iii) Excessive Funding or Requirements: The Transmission Provider shall seek to identify and manage the development of, as a part of the planning process for Market Efficiency Projects, portfolios of projects that tend to provide benefits throughout each Local Resource Zone, as defined in Attachment WW, over the planning horizon. The Transmission Provider shall analyze on an annual basis whether the project portfolios developed in accordance with this goal and the criteria in Section III. A.2.f unintentionally

result in unjust or unreasonable annual capital funding requirements for any Transmission Owner or rate increases for Transmission Customers in designated pricing zones; or otherwise result in undue discrimination between the Transmission Customers, Transmission Owners, or any Market Participants; any such identified consequences shall be reported to the Planning Advisory Committee and to the Organization of MISO States. After discussing such assessments with the aforementioned stakeholder bodies, and taking into consideration the cumulative experience in applying this Attachment FF, the Transmission Provider will make a determination as to whether Tariff modifications are required, and if so file such modifications.

- g. Multi Value Projects: Costs of Multi Value Projects will be allocated as follows:
 - i) One-hundred percent (100%) of the annual revenue requirements of the Multi Value Projects shall be allocated on a system-wide basis to Transmission Customers that withdraw energy, including External Transactions sinking outside the Transmission Provider's region, and recovered through an MVP Usage Charge pursuant to Attachment MM.
- h. Treatment of Projects that meet both Baseline Reliability Project

Criteria and/or New Transmission Access Project Criteria, and the Market Efficiency Project Criteria: If the Transmission Provider determines that a project designated as a Market Efficiency Project also meets the criteria to be designated as a Baseline Reliability Project and/or a New Transmission Access Project, the cost of such project shall be allocated in accordance with the Market Efficiency Project allocation procedures.

- i. Other Projects: Unless otherwise agreed upon pursuant to Section III.A.2.a. of this Attachment FF, the costs of Network Upgrades that are included in the MTEP, but do not qualify as Baseline Reliability Projects, New Transmission Access Projects, Market Efficiency Projects or Multi-Value Projects, shall be eligible for recovery pursuant to Attachment O of this Tariff by the Transmission Owner(s) and/or ITC(s) paying the costs of such project, subject to the requirements of the ISO Agreement.
- j. Withdrawal from Midwest ISO: A Transmission Owner that withdraws from the Midwest ISO as a Transmission Owner shall remain responsible for all financial obligations incurred pursuant to this Attachment FF while a Member of the Midwest ISO and payments applicable to time periods prior to the effective date of such withdrawal shall be honored by the Midwest ISO and the withdrawing Member.
- k. New Transmission Owners: A new Transmission Owner joining

the Midwest ISO will be responsible for the following financial obligations:

- a. New Transmission Owners will not be responsible for any portion of Baseline Reliability Projects, Generator Interconnection Projects, Transmission Delivery Service Projects, or Market Efficiency Projects that were approved prior to their entry date.
- b. For Multi-Value Projects approved prior to the new Transmission Owner's entry date, the load interconnected to the Transmission Owner's Transmission System will be responsible for one-hundred percent (100%) of the MVP usage charge described in Attachment MM for the years following the Transmission Owner's entry date applied to the Monthly Net Actual Energy Withdrawals for Load interconnected to the Transmission Owner's Transmission System.
 1. Only a Transmission Owner shall be authorized to construct and/or own transmission facilities associated with a Baseline Reliability Project, Market Efficiency Project and/or Multi Value Project. For projects jointly developed between Transmission Owners and other parties the portion constructed and owned by a Transmission Owner may qualify as a Baseline Reliability Project, Market Efficiency

Project and/or Multi Value Project.

IV. [RESERVED FOR FUTURE USE]

V. Designation of Entities to Construct, Own and/or Finance MTEP Projects: For each project included in the recommended MTEP, the plan shall designate, based on the planning analysis performed by the Transmission Provider and based on other input from participants, including, but not limited to, any indications of a willingness to bear cost responsibility for the project; and applicable provisions of the ISO Agreement, one or more Transmission Owners or other entities to construct, own and/or finance the recommended project.

VI. Implementation of the MTEP:

A. If the Transmission Provider and any Transmission Owner's planning representatives, or other designated entity(ies), cannot reach agreement on any element of the MTEP, the dispute may be resolved through the dispute resolution procedures provided in the Tariff, or in any applicable joint operating agreement, or by the Commission or state regulatory authorities, where appropriate. The MTEP shall have as one of its goals the satisfaction of all regulatory requirements as specified in Appendix B or Article IV, Section I, Paragraph C of the ISO Agreement.

B. The Transmission Provider shall present the MTEP, along with a summary of relevant alternative projects that were not selected, to the Transmission Provider Board for approval on a biennial basis, or more frequently if needed. The proposed MTEP shall include specific projects already approved as a result of the Transmission Provider entering into Service Agreements with Transmission Customers where such agreements provide for identification of needed transmission construction, timetable, cost, and Transmission Owner or other parties' construction responsibilities.

C. Approval of the MTEP by the Transmission Provider Board certifies it as the Transmission Provider plan for meeting the transmission needs of all stakeholders subject to any required approvals by federal or state regulatory authorities. The Transmission Provider shall provide a copy of the MTEP to all applicable federal and state regulatory authorities. The affected Transmission Owner(s), or other designated entity(ies), shall make a good faith effort to design, certify, and build the designated facilities to fulfill the approved MTEP. However, in the event that a proposed project is being challenged through the dispute resolution procedures under this Tariff, the obligation of the Transmission Owners, or other designated entity(ies), to build that specific project (subject to required approvals) is waived until the project emerges from the dispute resolution procedures as an approved project. The Transmission Provider Board shall allow the Transmission Owners, or other designated entity(ies), to optimize the final design of specific facilities and their in-service dates if necessary to accommodate changing conditions, provided that such changes comport with the approved MTEP and provided that any such changes are accepted by the Transmission Provider. Any disagreements concerning such matters shall be subject to the dispute resolution procedures of this Tariff.

D. The Transmission Provider shall assist the affected Owner(s), or other designated entity(ies), in justifying the need for, and obtaining certification of, any facilities required by the approved MTEP by preparing and presenting testimony in any proceedings before state or federal courts, regulatory authorities, or other agencies as may be required. The Transmission Provider shall publish annually, and distribute to all Members and all appropriate state regulatory authorities, a five-to-ten-year planning report of forecasted

transmission requirements. Annual reports and planning reports shall be available to the general public upon request.

VII. Multi-Value Project Costs and Benefits Review and Reporting

A. Frequency and Reporting of Multi-Value Project Review: Every three (3) years, as provided below and in the Business Practices Manual for Transmission Planning, the Transmission Provider shall conduct a review of the cumulative costs and benefits associated with MVPs, and shall disseminate the results of such reviews to its stakeholders. The Transmission Provider shall use the review process and results to identify potential modifications to the MVP methodology and its implementation for projects to be approved at a future date.

1. Triennial Full MVP Review: Beginning with the MTEP for 2014 (“MTEP 14”), and every third year thereafter, the Transmission Provider shall conduct a full MVP review, as provided in section VII.B of this Attachment FF.
2. Annual Limited MVP Review: Beginning with the MTEP for 2015 (“MTEP 15”), and each year thereafter when there is no full MVP review, the Transmission Provider shall conduct a limited MVP review, as provided in section VII.C of this Attachment FF.
3. Calculation of Costs and Benefits: The reviews shall calculate costs and benefits on a forward-looking basis over both twenty (20)-year and forty (40)-year periods. The costs calculation shall use updated project costs and in-service dates provided in the latest MTEP quarterly status report, and the benefits calculation

shall use updated future scenarios from the latest MTEP planning cycle. The results of the costs and benefits calculation shall be provided for each Local Resource Zone as defined in Module E. If the Local Resource Zones as defined in accordance with Module E for Resource Adequacy purposes are modified, the Transmission Provider, working with stakeholders, may define different Local Resource Zones for purposes of reporting the results of the review. The definition of different Local Resource Zones in connection with reporting the results of the review will be detailed in the Business Practices Manual for Transmission Planning.

4. Dissemination of the Results of the Full and Limited MVP Reviews: Within a reasonable time after completion of each MVP review, the Transmission Provider shall disseminate the results of and supporting analysis for the MVP review through: (a) publication in the MTEP; (b) posting on the appropriate section of the Transmission Provider's public website; and (c) presentation to the appropriate stakeholder committees.

B. Scope of Full Multi-Value Project Review: Each full MVP review shall at a minimum include the following:

1. Quantitative Benefits: Analysis of the quantifiable economic benefits resulting from the addition of MVPs, including, but not limited to:
 - a. Congestion and Fuel Savings: Savings from increased access to lower cost Resources;

- b. Decreased Operating Reserves: Savings associated with lower Operating Reserve requirements;
 - c. Decreased System Planning Reserve Margin: Savings associated with deferred generation investment due to a reduction in the system-wide Planning Reserve Margin; and
 - d. Decreased Transmission Line Losses: Savings associated with deferred generation investment due to a reduction in the Capacity required to serve transmission losses during peak hours, to the extent that MVPs reduce such losses.
2. Public Policy and Other Qualitative Benefits: Analysis of the public policy and other qualitative benefits accruing from MVPs, such as newly interconnected wind units; and an increase in the percentage of the Transmission Provider's Energy needs being supplied by wind and/or other renewable resources, and wind curtailments.
3. Historical Data: Provision, beginning with the MTEP for 2017 ("MTEP 17"), and based on the historical data available to the Transmission Provider for the five (5) prior years, of information on certain additional market trend metrics including, but not limited to:
- a. Congestion costs;
 - b. Energy prices;
 - c. Fuel costs;

- d. Planning Reserve Margin requirements;
- e. Number of newly interconnected Resources, by Resource type; and
- f. The share of the Transmission Provider's Energy supplied, by Resource type.

C. Scope of Limited Multi-Value Project Review: Each limited MVP review shall at a minimum include the items described in Sections VII.B.1.a and VII.B.3 of this Attachment FF, based on the latest available data for the current year, in preparation for the next full MVP review.

TAB C

1 **INTRODUCTION**

2 **Witness Background**

3 **Q. Please state your name, current position, and business address.**

4 A. My name is Jennifer Curran. I am employed by the Midwest Independent Transmission
5 System Operator, Inc. (“MISO”), and my business address is at 720 City Center Drive,
6 Carmel, Indiana 46032.

7 **Q. Please briefly describe your educational background and professional experience.**

8 A. I hold a Bachelor of Science in Mechanical Engineering from Rice University, and a
9 Master of Business Administration from Duke University. Prior to joining MISO in July
10 2004, I was Manager of Power Generation & Supply Strategy for the Mid-Atlantic and
11 Mid-Continent Regions at what was then known as Reliant Resources.

12 **Q. Please describe your responsibilities with MISO.**

13 A. I am Executive Director of Transmission Infrastructure Strategy, a position I have held
14 since October 2009. From February 2007 to October 2009, I was Director of
15 Transmission Infrastructure Strategy. I am currently responsible for directing the
16 development and execution of strategies to enable increased transmission infrastructure
17 investment through the MISO transmission planning process. In this role, I focus on
18 supporting the state and federal regulatory and business case requirements for
19 transmission infrastructure. In addition, I am responsible for leading the development of
20 effective transmission cost allocation methodologies. I also serve as a MISO staff liaison
21 to the Board of Directors System Planning Committee, which is responsible for providing
22 overall direction to the MISO planning staff and reviewing the MISO Transmission
23 Expansion Plan (“MTEP”).

1 I previously served as the MISO staff liaison to the stakeholder committee charged with
2 improvement of the current cost allocation method, the Regional Expansion Criteria and
3 Benefits Task Force (“RECB TF”). Also, I previously served as the MISO staff liaison to
4 the Planning Advisory Committee, which is the stakeholder committee that provides
5 advice to the MISO planning staff on policy matters related to the process, integrity, and
6 fairness of the MISO-wide transmission expansion plan and cost allocation. I have also
7 served as the Director of Performance Assurance at MISO, responsible for business and
8 financial planning for the operations areas of the company.

9 **Q. Have you sponsored any other testimony before regulatory commissions?**

10 A. Yes. I have submitted prepared testimony before the Federal Energy Regulatory
11 Commission (“FERC” or “Commission”) involving matters specific to MISO. For
12 example, I submitted testimony in Docket No. ER10-1791-000, where the Commission
13 approved MISO’s Open Access Transmission, Energy and Operating Reserve Markets
14 Tariff (“Tariff”) provisions establishing Multi-Value Projects (“MVPs”) and the regional
15 (*i.e.*, system-wide) allocation of MVP-related costs. Most recently, I submitted testimony
16 in Docket Nos. ER12-715-000 and ER12-715-003, in which MISO and the MISO
17 Transmission Owners submitted revisions to the MISO Tariff relating to a new proposed
18 Schedule 39 and the responsibility of two withdrawing Transmission Owners for costs
19 under that schedule. I have also submitted testimony in support of MISO in other
20 proceedings before the Commission and state regulatory commissions.

1 **Purpose of Testimony**

2 **Q. What is the purpose of your testimony?**

3 A. The purpose of this testimony is to support proposed modifications to MISO’s Baseline
4 Reliability Project (“BRP”) cost allocation methodology submitted in this filing by MISO
5 and the MISO Transmission Owners (collectively “Filing Parties”).

6 **Q. Are you sponsoring any exhibits?**

7 A. Yes. In addition to this testimony, I am sponsoring Exhibit No. MISO-2, which depicts
8 the hierarchy of MISO transmission project types.

9 **MISO’S PLANNING PROCESS AND PROJECT TYPES**

10 **Q. Please explain the MISO approach to local and regional project classification.**

11 A. Through MISO’s Order No. 890-compliant planning protocols set forth in Attachment FF
12 of the Tariff, MISO evaluates and subsequently approves projects to address certain
13 Transmission Issues, including economic, reliability, and public policy requirements.
14 Through MISO’s “bottom-up, top-down” planning process, MISO evaluates both local
15 and regional transmission projects. MISO’s regional planning process seeks to identify
16 the most efficient or cost-effective solution to address multiple regional needs. For
17 example, in the MISO planning process, Transmission Owners identify reliability issues
18 and propose potential solutions (“bottom-up”), while MISO assesses Transmission Issues
19 and possible solutions on a regional basis (“top-down”) that may be more cost-effective
20 and/or efficient solutions that provide greater regional reliability, market, and public
21 policy benefits.

1 **Q. What project types does MISO evaluate as part of its planning process?**

2 A. Under Attachment FF of the Tariff, there are multiple project types that are evaluated
3 under specific criteria as part of the MTEP process to determine allocation of costs.
4 These project types include BRPs, Generation Interconnection Projects (“GIPs”), Market
5 Efficiency Projects (“MEPs”), MVPs, Transmission Delivery Service Projects, and other
6 projects that do not meet one of the prior identified project types. Upon a project being
7 approved in Appendix A of MTEP, the identified party is obligated to construct the
8 project.

9 **Q. Are the costs of any of these projects allocated outside of a single pricing zone?**

10 A. Under the current MISO Tariff, BRPs, MEPs, and MVPs have costs that are allocated to
11 load outside of the pricing zone where the project is located.¹ In the case of BRPs, costs
12 may be allocated to more than one pricing zone, while MEPs are partially and MVPs are
13 wholly allocated on a system-wide basis. MEPs and MVPs, given their broad regional
14 cost allocation and benefits, meet the definition in Order No. 1000 for a “transmission
15 facility selected in a regional transmission plan for purposes of cost allocation.”² As I
16 discuss further in this testimony, MISO is proposing to modify the BRP cost allocation
17 methodology in recognition of the fact that these projects are driven by local reliability
18 needs and therefore should be designated as local transmission facilities that are not
19 purposely included in the regional transmission plan for purposes of regional cost
20 allocation.

¹ Under certain circumstances, GIP costs can also be allocated beyond a single pricing zone.

² *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, III FERC Stats. & Regs., Regs. Preambles ¶ 31,323, at P 63 (2011), *order on reh’g and clarification*, Order No. 1000-A, 139 FERC ¶ 61,132, *order on reh’g and clarification*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012).

1 **Q. Please explain the BRP project type.**

2 **A.** BRPs are Network Upgrades designed to ensure that the MISO Transmission System
3 remains in compliance with applicable national Electric Reliability Organization
4 (“ERO”) reliability standards, and reliability standards adopted by Regional Reliability
5 Organizations that are applicable within MISO.³ BRPs include projects operating at 100
6 kV or greater that are needed to maintain reliability while accommodating the ongoing
7 needs of existing Transmission Customers. Under the current Tariff, BRPs can be
8 categorized as cost shared or not cost shared depending on project cost. For a BRP to be
9 considered for cost sharing it must have: (1) a project cost of \$5 million or greater; or (2)
10 a project cost under \$5 million that is 5% or more of the constructing Transmission
11 Owner’s net transmission plant. Cost shared BRPs are allocated in the following manner:
12 (1) for facilities less than 345 kV, 100% of the costs are allocated to individual pricing
13 zones on the basis of a Line Outage Distribution Factor (“LODF”) analysis; and (2) for
14 facilities 345 kV or greater, 80% of the costs are allocated to individual pricing zones on
15 the basis of a LODF analysis, and 20% of the costs are allocated on a system-wide basis
16 to all pricing zones. The LODF analysis assigns the BRP project costs to pricing zones
17 based on a flow-based impact that the new transmission line would have on the total
18 flows in any other pricing zone as a total percentage of all other pricing zones.⁴

³ See Tariff, Attachment FF, Section II.A.1 (defining BRPs).

⁴ Section 1.356 of the Tariff defines the LODF as: “The percent of flow on line A, which is transferred to line B for the loss of line A.” Further explanation on the LODF analysis is available in Appendix J to the Transmission Planning Business Practices Manual No. 020 (Nov. 15, 2011), <https://www.midwestiso.org/library/businesspracticesmanuals/Pages/BusinessPracticesManuals.aspx> .

1 **Q. Please explain the MEP category of transmission projects.**

2 A. MEPs are economic upgrades that meet specific criteria, including that the project costs
3 \$5 million or greater, primarily involves facilities with a voltage of 345 kV or greater,
4 and meets a defined benefit-to-cost requirement.⁵ For projects that meet the MEP
5 criteria, 80% of the costs are allocated to all Transmission Customers in the appropriate
6 Local Resource Zones based on the distribution of benefits across the Local Resource
7 Zones and 20% on a system-wide basis to all Transmission Customers.⁶

8 **Q. Please explain the MVP category of transmission projects.**

9 A. MVPs are defined as one or more Network Upgrades that address a common set of
10 Transmission Issues and satisfy the conditions listed in Sections II.C.1, II.C.2, and II.C.3
11 of Attachment FF of the Tariff. MVPs are evaluated as portfolios of projects, whose
12 benefits are spread broadly across the MISO footprint, to enable the reliable and
13 economic delivery of energy in support of documented energy policy mandates or laws
14 that have been enacted or adopted through state or federal legislation, provide multiple
15 types of economic value across multiple pricing zones, or address, through the
16 development of a robust Transmission System, multiple Transmission Issues associated
17 with reliability and economic issues affecting multiple pricing zones.⁷ The costs of
18 approved MVPs are allocated 100% on a system-wide basis.⁸ The MVP transmission

⁵ Compliance Filing of Midwest Independent Transmission System Operator, Inc., Docket No. ER06-18-004, at 8 (Nov. 1, 2006) (“RECB II Filing”); *see also* Tariff, Attachment FF, Sections II.B and III.A.2.f.

⁶ The cost allocation across the Local Resource Zones is determined using the distribution of adjusted production cost savings. Adjusted production cost is defined as the total production cost of the generation fleet adjusted for import costs and export revenues. Tariff, Attachment FF, Sections II.B.1.a and III.A.2.f.ii.

⁷ *Id.*, Attachment FF, Sections II.C.1, II.C.2 and II.C.3

⁸ *Id.*, Attachment FF, Section III.A.2.g.

1 project category, and its associated broad-based cost allocation, is designed to, among
2 other things, enable MISO to address multiple reliability needs and provide economic
3 value through regional transmission development, while addressing identified
4 transmission needs driven by public policy requirements.

5 **BRP CHARACTERISTICS AND LOCAL NATURE**

6 **Q. What is the definition of local transmission facilities in Order No. 1000?**

7 A. The Commission defined “local transmission facilities” as “transmission facility[ies]
8 located solely within a public utility transmission provider’s retail distribution service
9 territory or footprint that [are] not selected in the regional transmission plan for purposes
10 of cost allocation.”⁹ Local transmission facilities are not “transmission facilities selected
11 in the regional transmission plan for purposes of cost allocation,”¹⁰ which the
12 Commission defined as “transmission facilities that have been selected pursuant to a
13 transmission planning region’s Commission-approved regional transmission planning
14 process for inclusion in a regional transmission plan for purposes of cost allocation
15 because they are more efficient or cost-effective solutions to regional transmission
16 needs.”¹¹

17 **Q. What is the significance in Order No. 1000 of being a local transmission facility?**

18 A. In Order No. 1000, the Commission indicated that public utility transmission providers
19 are not required to eliminate provisions granting a federal right of first refusal for local
20 transmission facilities. The Commission elaborated in paragraph 423 of Order No.

⁹ Order No. 1000 at P 63.

¹⁰ *Id.* at PP 226, 318 (indicating that the “focus” of Order No. 1000 is “transmission facilities that are evaluated at the regional level and selected in a regional transmission plan for purposes of cost allocation”).

¹¹ *Id.* at P 63.

1 1000-A that “Order No. 1000 does not require elimination of a federal right of first
2 refusal for a new transmission facility if the regional cost allocation method results in
3 100% of the facility’s cost being allocated to the public utility transmission provider in
4 whose retail distribution service territory or footprint the facility is to be located.” Order
5 No. 1000-B affirmed this finding.¹²

6 **Q. What projects in MISO are not local transmission facilities?**

7 A. MEPs and MVPs are not local transmission facilities. These projects are solutions to
8 regional needs, and their justification is based upon the determination and quantification
9 of regional benefits to the Transmission System.

10 **Q. How do BRPs relate to the definition of local transmission facilities in Order No.**
11 **1000?**

12 A. BRPs are the type of “local transmission facility” contemplated by Order Nos. 1000 and
13 1000-A. First, BRPs are transmission facilities that are planned and approved in MTEP
14 because they address local reliability needs and aid a MISO Transmission Owner in
15 meeting its state-imposed obligation to serve retail customers, and not necessarily
16 because they are more efficient or cost-effective solutions to regional transmission needs.
17 Additionally, as shown below, MISO’s analysis demonstrates that the benefits of BRPs
18 accrue primarily to the pricing zone in which the BRP is located. Finally, as discussed
19 below, with the addition of the MEP and MVP categories, reliability projects that also
20 satisfy the MEP or MVP criteria will be categorized as MEPs or MVPs rather than as
21 BRPs, meaning that the BRPs will continue to address local needs.

¹² Order No. 1000-B at P 51.

1 **Q. How does the BRP project type address compliance with mandatory Applicable**
2 **Reliability Standards?**

3 A. Compliance with Applicable Reliability Standards is a key responsibility of MISO and its
4 Transmission Owners. The BRP category of Network Upgrades is specifically designed
5 to ensure continued compliance with such Applicable Reliability Standards. Public
6 safety is a fundamental reason behind the implementation of Applicable Reliability
7 Standards that have the force of law and carry significant penalties for noncompliance.
8 The risk to the Transmission Owners goes beyond potential NERC reliability violations,
9 to include such items as state regulatory repercussions, customer complaints, and
10 potential legal liability. BRPs are designed to mitigate these risks.

11 **Q. How is the risk of delay, penalties for reliability violations, and other regulatory and**
12 **legal consequences compounded by the near-term timeframe of BRPs?**

13 A. Most BRPs are designed to serve near-term reliability drivers and address projected
14 reliability Transmission Issues in the next five years. As discussed in MISO's concurrent
15 Order No. 1000 compliance filing, construction and ownership obligations for cost shared
16 projects will be determined through MISO's proposed inclusive evaluation process,
17 which takes up to a year and carries the potential for additional delay due to lengthy and
18 protracted litigation after the transmission developer is initially selected. The near-term
19 horizon for BRPs leaves little time for MISO to engage in a process to identify and select
20 a transmission developer, particularly given that such a process may entail additional
21 state regulatory processes for the transmission developer and potential litigation
22 regarding MISO's selection of the developer. These delays will increase the risk that the
23 approved BRP is not able to meet its required in-service date, resulting in potential
24 reliability violations. This risk would be magnified if MISO were required to engage in a

1 selection process for a transmission developer, and the developer subsequently defaults,
2 forcing MISO to designate another entity to construct and own the BRP.

3 **Q. Please provide data on the in-service date timeframes of cost shared BRPs.**

4 A. MISO's experience to date with cost shared BRPs indicates they are typically identified
5 and approved so that they are in service shortly before the expected occurrence of a
6 Transmission Issue or reliability deficiency on the Transmission System, to minimize the
7 risk that system conditions requiring the Network Upgrade will change and the project
8 will no longer be required. The MTEP development process accounts for this by
9 identifying and recommending projects for approval based upon their needed in-service
10 date and the time required to design and construct the project. For example, 70% (*i.e.*, 55
11 of the 78) cost shared BRPs approved since MTEP06 have had an in-service date 3 years
12 or less from their approval date.

13 **ANALYSIS OF BRP COST ALLOCATION AND BENEFITS**

14 **Q. Has MISO analyzed the local nature of BRPs?**

15 A. Yes. MISO's experience with BRP cost allocation to date demonstrates that BRPs serve
16 local reliability purposes and provide local benefits in the pricing zone where they are
17 located. Under the current BRP cost allocation methodology, a significant portion of the
18 total project cost of approved cost shared BRPs has been allocated to the pricing zone
19 where the project is located. For example, 80% (*i.e.*, 62 out of 78) of the cost shared
20 BRPs approved since MTEP 06 have retained at least 75% of the project cost in the
21 pricing zone where the project is located. Also, more than half of all approved cost
22 shared BRPs have had a very minimal amount of sharing to other pricing zones, with

1 more than 90% of the project cost for each BRP allocated to the pricing zone where the
2 project is located.

3 **Q. Are BRPs typically physically located solely within a single pricing zone?**

4 A. Yes, approximately 90% of the transmission facilities making up the 78 approved cost
5 shared BRPs were designated as having a geographical location in a single pricing zone.

6 **Q. Do BRPs typically involve 345 kV or greater facilities that include a 20% postage
7 stamp cost allocation?**

8 A. No. Only 17 out of the 78 BRPs approved for cost sharing since MTEP 06 have included
9 at least one 345 kV or greater facility resulting in a 20% postage stamp cost allocation.

10 The limited number of higher voltage facilities (*e.g.*, 345 kV or greater) further illustrates
11 the local nature of the Transmission Issues being addressed by cost shared BRPs. Also,
12 with the addition of MVPs to regional cost allocation, which will “sweep up” additional
13 reliability projects, it is likely that fewer 345 kV facilities would be categorized as BRPs
14 going forward.

15 **BRP COST ALLOCATION CHANGES**

16 **Q. What changes is MISO proposing to the BRP cost allocation methodology?**

17 A. Order No. 1000-A stated that “regional” transmission facilities are those projects that
18 have any portion of their costs allocated outside of their local zone. Order No. 1000-B
19 confirmed this ruling. This definition would cause all BRPs, regardless of their local
20 need drivers or voltage level, to be at risk of being classified as “regional” transmission
21 facilities, even though, as explained earlier, these projects are designed to address local
22 reliability issues and only a fraction of BRP costs are allocated outside the pricing zone
23 where the project is located. Misclassifying these local projects as “regional” could result
24 in delays in project implementation, because rather than rely on the current Transmission

1 Owners Agreement to determine the appropriate entity to construct a BRP, MISO would
2 be required to engage in a developer selection process under Order No. 1000. These
3 factors, as discussed more above, led MISO to reevaluate the BRP cost allocation
4 methodology, resulting in the proposed changes. MISO is proposing that all of the costs
5 of BRPs be allocated to the pricing zone where the BRP is located, consistent with the
6 Commission's cost-causation principle and the "roughly commensurate" standard. This
7 proposal would eliminate both the regional postage stamp component for 345 kV BRP
8 facilities as well as the zonal LODF component that applies to all cost shared BRPs.

9 **Q. Why does MISO believe that this change is just and reasonable?**

10 A. As shown above, BRP cost allocation, including both the LODF and postage stamp
11 component, has historically resulted in a small percentage of the BRP costs being
12 allocated to pricing zones outside of the pricing zone where the project is located, with
13 the vast majority of the costs being allocated to the zone where the BRP is located. As
14 the Commission and the courts have previously determined, costs do not have to be
15 allocated with "exacting precision," but in a manner that is "roughly commensurate" with
16 benefits. Also, the Commission is not authorized to reject a proposed methodology
17 simply because it tracks cost causation "less than perfectly." Modifying BRP cost
18 sharing to allocate 100% of the costs of a BRP to the pricing zone where the project is
19 located will result in a cost allocation that is "roughly commensurate" with the primary
20 benefits of BRPs, and therefore is just and reasonable.

21 **Q. Please describe how this change will allocate costs in a manner that is roughly**
22 **commensurate with benefits.**

23 A. Allocating 100% of the costs of BRPs to the pricing zone where the project is located will
24 be roughly commensurate with the reliability benefits of the project, as the primary

1 beneficiaries of BRPs are the entities located within the host pricing zone. As explained
2 earlier in my testimony, 80% of the BRPs that were eligible for cost sharing under the
3 current process since MTEP 06 have had at least 75% of the project cost allocated to the
4 pricing zone where the project is located. Thus, allocating 100% of the costs of BRPs to
5 the pricing zone where the project is located is “roughly commensurate” with benefits
6 and is just and reasonable and consistent with this principle.

7 **Q. Is this change consistent with cost allocation changes approved by the Commission**
8 **in other RTOs?**

9 A. Yes. For example, in approving a cost allocation methodology proposed by Southwest
10 Power Pool, Inc. (“SPP”), the Commission found that SPP’s proposed allocation of 100%
11 of the costs of certain local transmission facilities to their host pricing zones was
12 “roughly commensurate” where SPP’s analyses demonstrated that, on average, 81% of
13 the costs of these facilities were allocated to the host pricing zone under SPP’s
14 “Megawatt-Mile” (“MW-mile”) analysis.¹³ The Commission approved SPP’s
15 elimination of the MW-mile allocation on the basis that, under the MW-mile analysis,
16 “the host zone receives the vast majority of benefits provided by such facilities,” and
17 therefore SPP’s “proposal to allocate the zonal costs of new facilities directly to the host
18 zone, rather than conduct[ing] a MW-mile analysis to allocate such costs, maintains a
19 cost allocation that is roughly commensurate with the benefits received.”¹⁴ Based on the
20 factors described above, including the historical cost allocation of BRPs, their focus on
21 addressing local Transmission Issues, their critical importance in maintaining

¹³ See *Sw. Power Pool, Inc.*, 131 FERC ¶ 61,252, at P 95 n.124 (2010).

¹⁴ *Id.* at P 95.

1 Transmission System reliability, and the safeguards existing in the MISO process against
2 the misuse of BRP project classification (as discussed in more detail below), it is just and
3 reasonable to eliminate regional cost allocation for BRPs.

4 **Q. Will this change allocate any costs to those who will receive no benefits from the**
5 **BRPs?**

6 A. No. Allocating costs exclusively to the pricing zone where the project is located is
7 consistent with past LODF analyses, and will avoid allocating costs to entities that do not
8 benefit.

9 **Q. Will this change create a benefit-to-cost ratio that is so high as to exclude projects**
10 **with net benefits from cost allocation?**

11 A. No. The proposed BRP cost allocation methodology does not use a benefit-to-cost ratio
12 to determine eligibility for cost allocation.

13 **Q. Will this change allocate costs involuntarily outside of the MISO planning region?**

14 A. No. The proposed BRP cost allocation methodology allocates costs entirely to the
15 pricing zone where the project is located.

16 **Q. Will this change maintain MISO's current open and transparent method for**
17 **reviewing and approving BRPs?**

18 A. Yes. The process for reviewing and approving BRPs through MISO's Order No. 890-
19 compliant, open and transparent stakeholder review process will be maintained. This
20 review will continue with stakeholders, including representatives from states and
21 interested customers, through the MISO Sub-regional Planning Meetings. Stakeholders
22 may also raise concerns during the Planning Subcommittee or Planning Advisory
23 Committee review of the MTEP report and its conclusions.

1 **Q. Is this cost allocation change clear and explained in detail?**

2 A. Yes. To implement these changes, MISO is removing from Attachment FF, Section
3 III.A.c the provisions for calculating the share of each pricing zones allocation of BRPs
4 and replacing them with new provisions specifying that costs of BRPs will be recovered
5 by the local pricing zone.¹⁵

6 **PROJECT CLASSIFICATION AND HIERARCHY SAFEGUARDS**

7 **Q. Would the elimination of regional cost allocation for BRPs allow for regional**
8 **projects to be categorized as BRPs, and therefore, by design, be excluded from the**
9 **developer selection process described in MISO’s concurrent Order No. 1000**
10 **compliance filing?**

11 A. No. MISO planning and cost allocation practices are designed to ensure that projects are
12 identified and assigned to the appropriate cost allocation category that matches the
13 benefits that the projects provide to the Transmission System. These practices include:
14 (1) a combined bottom-up and top-down planning approach; (2) cost allocation
15 procedures that contain a hierarchy that precludes projects that meet the MEP or MVP
16 criteria from being categorized as Baseline Reliability Projects; and (3) updated MEP
17 cost allocation and study procedures.

18 **Q. Please explain the MISO bottom-up, top-down planning approach.**

19 A. As discussed above, the MISO Order No. 890-compliant planning process uses a bottom-
20 up, top-down approach to generate the annual MTEP. The “bottom-up” portion relies on
21 the ongoing responsibilities of the individual Transmission Owners to review and plan
22 continuously to meet the needs of their local system reliably and efficiently. MISO
23 reviews these local planning activities with stakeholders and then performs a “top-down”

¹⁵ See proposed Section III.A.2.c of Attachment FF of the Tariff.

1 review of the adequacy and appropriateness of the local plans in a coordinated fashion
2 with all of the other local plans to ensure that collectively the needs are met in an
3 efficient and cost-effective manner. As part of this process, projects initially considered
4 as local transmission solutions may be combined, altered, replaced by a new project that
5 addresses multiple local needs, or analyzed for their benefits as part of a regionally-based
6 MVP portfolio or as MEPs.

7 **Q. Can you provide a specific example of when the MISO planning process identified a**
8 **more efficient or cost-effective regional solution that replaced local projects.**

9 A. MISO recently evaluated and approved the 2011 MVP portfolio, a \$5.2 billion set of
10 transmission projects that will, as a group, improve system reliability, provide economic
11 value, and enable public policy mandates. As part of this analysis, two projects in Iowa
12 that were defined in previous studies and stakeholder input were reconfigured, resulting
13 in a solution that addressed more reliability issues than the two original projects, at
14 roughly the same cost.

15 **Q. Please describe the MISO cost allocation hierarchy**

16 A. MISO has established a hierarchy of transmission project types, with BRPs focused on
17 the local end of the spectrum of Transmission Issues, MEPs focused on sub-regional and
18 regional Transmission Issues, and MVPs focused on resolving regional Transmission
19 Issues in a more efficient and cost-effective manner. I have included as Exhibit No.
20 MISO-2 a diagram depicting the hierarchy of project types. The purpose of MISO's
21 Order No. 890-compliant top-down planning process is to seek transmission solutions
22 that more cost-effectively address multiple Transmission Issues, rather than developing
23 individual solutions for each identified Transmission Issue. Specifically, MISO is
24 obligated in the course of the MTEP process to "seek out opportunities to coordinate or

1 consolidate, where possible, individually defined transmission projects into more
2 comprehensive cost-effective developments.”¹⁶ The “collaborative [MTEP] process is
3 designed to ensure that the MTEP address[es] Transmission Issues within the applicable
4 planning horizon in the most efficient and cost effective manner, while giving
5 consideration to the inputs from all stakeholders.”¹⁷ If a MVP or MEP will resolve
6 multiple issues more efficiently and cost-effectively than individual BRPs, the regional
7 solution will be pursued. This identification of more efficient and cost-effective regional
8 solutions is a key component and benefit of the “top-down” regional planning process. In
9 fact, if a BRP also meets the criteria to be a MEP, under Attachment FF of the Tariff, the
10 project will be considered a MEP.¹⁸ In addition, under Attachment FF of the Tariff,
11 BRPs that provide regional benefits may also qualify as MVPs, with the associated
12 regional cost allocation.¹⁹

13 **Q. Can you provide examples of how this hierarchy has been applied in the past?**

14 A. As discussed above, the MISO Board of Directors approved an MVP portfolio in 2011
15 because of the portfolio’s strong reliability, economic, and public policy benefits. As a
16 whole, the portfolio resolved 650 reliability violations caused by the integration of

¹⁶ Tariff, Attachment FF, Section I.B.

¹⁷ *Id.*

¹⁸ *Id.*, Attachment FF, Section III.A.2.h.

¹⁹ *Id.*, Attachment FF, Section II.C.2.c (MVP Criterion 3); *id.*, Attachment FF, Section II.C.4.

1 renewable energy, under more than 6,700 system conditions.²⁰ By addressing these
2 reliability violations, the approved MVP portfolio avoided the need for 23 future BRPs.²¹
3 The identified reliability violations could have led to the designation of multiple BRPs.
4 Instead, under the current MISO top-down planning process, MISO identifies more cost-
5 effective and efficient regional solutions that may address the individual reliability issues
6 more cost-effectively.

7 **Q. Does MISO anticipate that the adoption of MVPs and changes to MEPs will result**
8 **in more of these projects being approved in lieu of BRPs?**

9 A. Yes. With the adoption of MVPs and recent changes to MISO's MEP methodology,
10 MISO anticipates the likelihood that multiple local transmission reliability issues could
11 be addressed through regional solutions that are subject to some level of regional cost
12 allocation, as either a MEP or a MVP. As discussed in the MVP Filing, MVPs are
13 specifically designed to, among other things, address Transmission Issues associated with
14 projected violations of mandatory reliability standards.²² In addition, MISO is working
15 with stakeholders to improve the MEP identification and evaluation study process so that
16 it will better identify and quantify the economic benefits of transmission projects targeted
17 specifically at congestion reduction. As part of this updated MEP evaluation process,
18 MISO will consider grouping facilities together to address common areas of congestion
19 on the system. MISO anticipates that between the study process improvement and recent

²⁰ MISO, *Multi Value Project Portfolio Results and Analyses*, Section 6 (Jan. 10, 2012), <https://www.misoenergy.org/Library/Repository/Study/Candidate%20MVP%20Analysis/MVP%20Portfolio%20Analysis%20Full%20Report.pdf>.

²¹ *See id.* Section 8.6.

²² Submittal of Midwest Independent Transmission System Operator, Inc. and the Midwest ISO Transmission Owners, Docket No. ER10-1791-000, Transmittal Letter at 21 (July 15, 2010) (citing Tariff, Attachment FF Section II.C.6).

1 cost allocation changes, such as lowering the benefit to cost ratio to fixed 1.25-to-1, more
2 MEPs may be selected in the MTEP than in the past, which also might lead to the
3 displacement of the need for multiple BRPs.

4 **Conclusion**

5 **Q. Does this complete your testimony?**

6 **A. Yes.**

AFFIDAVIT

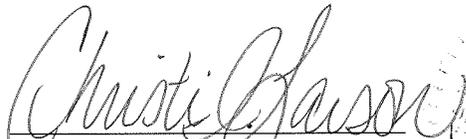
County of Hamilton

State of Indiana

Jennifer Curran, being duly sworn, deposes and states: that she prepared the Testimony of Jennifer Curran, and the statements contained therein are true and correct to the best of her knowledge and belief.

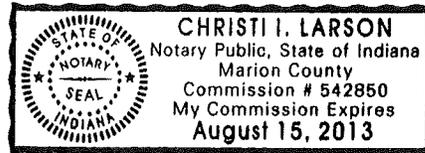

Jennifer Curran

SUBSCRIBED AND SWORN BEFORE ME, this 24th day of October, 2012.


Christi I. Larson

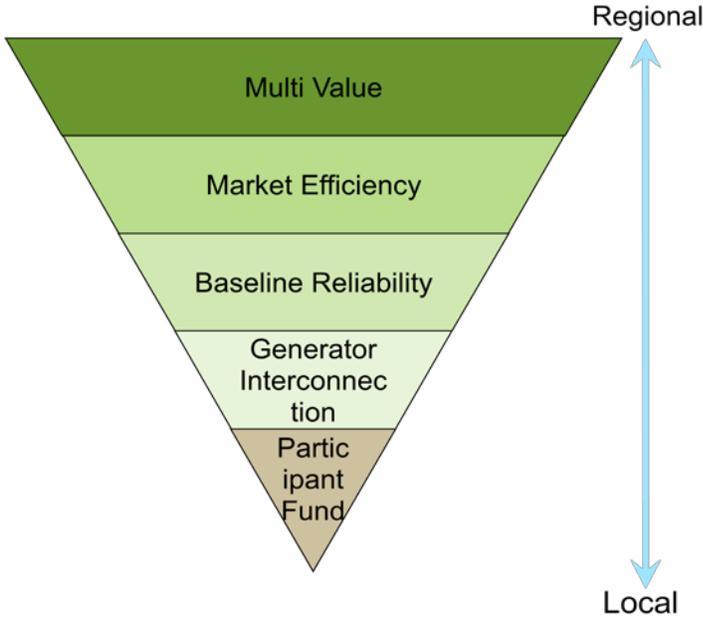
Notary Public, Marion County

State of Indiana



My Commission Expires: August 15, 2013

Transmission Cost Allocation Hierarchy



In the MISO cost allocation approach the business case (i.e. benefits) defines the spread of dollars

- Benefits of Multi Value Projects are spread regionally consistent with the widespread benefits from regional plan
- Economic benefits of Market Efficiency Projects spread farther beyond the local zone
- Reliability benefits of Baseline Reliability Projects primarily stay in the zone in which the reliability issue exists
- Generator Interconnection Projects paid primarily by Interconnection Customer
- Participant funded projects are paid by the party proposing the project