

CapX2020 Group 1 Projects

MISO Cost Allocation Methodology

For Brookings MVP Treatment

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Introduction

This white paper is provided in connection with Northern States Power Company, a Minnesota corporation (“Xcel Energy”) and Otter Tail Power Company’s (“Otter Tail” and collectively with Xcel Energy “Applicants”) Application for Advanced Determination of Prudence and addresses issues concerning ratepayer impact of the Brookings Project. Specifically, this analysis is a follow-up to the original analysis that was submitted in October 2009 in Case Nos. PU-09-676 and PU-09-678. This follow-up is intended to only address the cost allocation treatment that is expected to apply to the Brookings Project. All other aspects of the original analysis for the other three CapX2020 Group 1 Projects remain unchanged.

In an effort to provide the North Dakota Public Service Commission (the “Commission”) with meaningful information regarding potential cost allocation scenarios, Applicants have worked, and continue to work, through the Midwest Independent Transmission System Operator, Inc. (“Midwest ISO”) cost allocation process pursuant to Attachment FF¹ of the Midwest ISO Open Access Transmission, Energy and Operating Reserve Markets Tariff (“Tariff”) to determine how the Brookings Project will be incorporated into the Midwest ISO transmission system under the new Midwest ISO Multi Value Project (“MVP”) methodology.² As will be discussed in this white paper, the Federal Energy Regulatory Commission (“FERC”) order approving the Midwest ISO tariff revisions³ provides a reasonable level of certainty regarding the cost allocation methodology applicable to the Brookings Project.

Applicants have made their best estimate of how the costs of the Brookings Project will be allocated to the users of the Midwest ISO transmission system, and in particular to Applicants’ North Dakota customers. As discussed in more detail below, for the Brookings Project, the estimated cost to respective North Dakota

¹ Attachment FF is sometimes referred to as “RECB,” which stands for Regional Expansion Criteria and Benefits and was the name of the Midwest ISO stakeholder task force that developed the cost inclusion and allocation criteria.

² As discussed in the compliance filing, the Brookings Project was listed as a “Candidate MVP” project and is expected to obtain this designation in June, 2011.

³ *Midwest Independent Transmission System Operator, Inc.*, 133 FERC ¶ 61,221 (2010) (“MVP Order”).

jurisdictional customers for each Applicant will be the Midwest ISO charges on approximately \$3,158,000 of investment for Xcel Energy and approximately \$2,573,000 of investment for Otter Tail.⁴

Cost Recovery and Allocations

A. Recovery of Capital Costs

As transmission owning members of the Midwest ISO, Applicants will recover their respective capital costs of the Brookings Project pursuant to the Midwest ISO Tariff. Those final eligible costs of ownership, as identified in the final Ownership Agreement negotiated amongst utilities participating in the CapX2020 Initiative (the “CapX2020 Utilities”), will be submitted by Applicants to the Midwest ISO pursuant to Midwest ISO Attachment MM of the Tariff, which contains the revenue requirements formula for projects designated as MVPs. Applicants expect that 100% of the Brookings Project will be part of the Midwest ISO Transmission System⁵ and subject to the cost allocation and cost recovery provisions of the Midwest ISO Tariff. Xcel Energy is expected to own 72.1% of the Brookings Project. Otter Tail is expected to own 4.0% of the Brookings Project. The installed cost of the Brookings Project is currently estimated to be between \$650 million and \$800 million. For

⁴ As with any project still in the permitting stages, the final costs of the CapX2020 Group 1 Projects will not be known until they are completed. Applicants’ submittal of costs estimated for this Application, pursuant to N.D.C.C. §49-05-16, and discussed herein are, therefore, estimates. These approximate totals are based on best available estimates and are subject to adjustment based on final route selection, timing of construction and the potential for unforeseen circumstances.

⁵ For purposes of this white paper, Transmission System is defined pursuant to the Midwest ISO Tariff as: “The transmission facilities owned or controlled by entities that have conveyed operational control to the Transmission Provider that are used to provide Transmission Service under Module B of this Tariff. The Transmission System includes facilities, the operational control of which has been transferred to the Transmission Provider subject to Commission approval under Section 203 of the Federal Power Act. In addition, the Transmission System includes other facilities booked to transmission accounts that are not controlled or operated by the Transmission Provider but are facilities that the Transmission Owners, by way of the Agency Agreement, have allowed the Transmission Provider to use in providing service under this Tariff. While not part of the Transmission System, service over Distribution Facilities is available through the execution of a Service Agreement pursuant to Schedule 11 of this Tariff. The term Transmission System shall include the Transmission System (Michigan).”

purposes of the calculations in this whitepaper, a project cost estimate within this range of \$735 million is used.

B. Midwest ISO Cost Allocation

As noted above, in order to pay the *owners* of transmission facilities in the Midwest ISO footprint, Midwest ISO charges the *users* of these transmission facilities for their use of those transmission facilities pursuant to its Tariff. Thus, Applicants, as users of transmission facilities in the Midwest ISO footprint, will pay a portion of those charges. It is these charges to use the transmission system in the Midwest ISO footprint, including the Brookings Project, for which Applicants will incur costs and which will be recovered from the ultimate benefactors of this use, Applicants' ratepayers.

1. MTEP Analysis

Each year, the Midwest ISO reviews all of the transmission expansion plans proposed by the Midwest ISO transmission owners, stakeholders and the Midwest ISO as it uses a top down/bottom up process to determine what should be included in what is known as "Appendix A" of the Midwest ISO Transmission Expansion Plan ("MTEP"). Appendix A projects are projects that have satisfied the Midwest ISO's factors to be the preferred solution to an identified reliability, policy or other need, or to achieve an identified cost savings or other benefit and that have been approved by the Midwest ISO Board of Directors. The project justification process includes consideration of a variety of factors including urgency of need and comparison from amongst alternatives of operating performance, initial investment costs, robustness of the solution, longevity of the solution provided, and performance against other economic metrics. Projects in Appendix A may be eligible for regional cost sharing.

At the present time, MISO assigns costs based on five different categories.

Baseline Reliability Projects ("BRP")

Generation Interconnection Projects ("GIP")

Transmission Delivery Service Projects

Market Efficiency Projects ("MEP")

Multi-Value Projects (“MVP”)⁶

The Brookings Project has not yet received its final designation; however, it was listed as a “Candidate MVP” project in the Midwest ISO filing to FERC creating the MVP designation and is currently under review for potential approval as such at the June 2011 Midwest ISO Board meeting. Applicants expect that the Brookings Project will receive the MVP designation and be included in MTEP Appendix A as an MVP at the Midwest ISO’s June board meeting. Therefore, this discussion focuses on just that category.

2. Revenue Requirement and Cost Allocation

The FERC has approved a cost recovery mechanism for MVPs whereby the revenue requirements for these projects are recovered from all load within the Midwest ISO, from exports out of the Midwest ISO and those transactions which merely pass through the Midwest ISO.⁷ The charges are assessed to these users of the Midwest ISO based on their share of the energy withdrawals from the Midwest ISO system through a usage rate. For example, if a transmission owning member of the Midwest ISO has 5% of all load within the Midwest ISO, on average, this Midwest ISO member will pay 5% of the revenue requirements for any MVP project through a usage rate.

Projects that qualify for cost sharing as MVPs are reported through the Midwest ISO Attachment MM revenue requirement and rates calculations. The information in this attachment is used for tracking costs and in-service dates of approved MVPs, for calculating the applicable usage rate and collecting the charges associated with such projects, and for distributing the revenues associated with such charges. Subsequent recovery of those revenue requirements are assessed under Schedule 26-A of the Midwest ISO Tariff.

⁶ Multi-Value Projects are defined as high-voltage transmission projects that enable the reliable and economic delivery of energy in support of documented energy policy requirements or high-voltage transmission projects that address multiple economic and/or reliability issues affecting multiple pricing zones.

⁷ Except for those transactions which sink in the PJM Interconnection.

C. Cost Allocations and Ratepayer Impacts of the Brookings Project

1. Attachment MM Charge Determination

It is expected that each Transmission Owning Member of the Midwest ISO with a revenue requirement for an approved MVP submits its revenue requirements to the Midwest ISO pursuant to Attachment MM. The Midwest ISO will then aggregate all of the revenue requirements for all approved MVPs into one usage rate applicable to all transactions into, within and out of the Midwest ISO footprint (with the exception of those transactions sinking in PJM Interconnection, LLC (“PJM”). For the first designated MVP Project a preliminary estimate of the cost allocation impact has already been made.⁸ This estimate was based on 2009 net actual energy withdrawals for the Midwest ISO and was provided by the Midwest ISO primarily to give a picture of how the cost allocation methodology for MVP projects would work. Because the actual cost allocation results that Applicants can expect will be based on actual future energy withdrawals, two notable changes need to be made to this estimation.

Working off of the Midwest ISO 2009 data, we made an adjustment to the total amount of energy withdrawals within the Midwest ISO to more accurately reflect the expected future membership of the Midwest ISO.⁹ First Energy is in the process of completing its withdrawal from the Midwest ISO and thus the energy withdrawals for that system should be removed from the estimation. Table 4 below shows the estimated cost allocation of MVP projects upon the withdrawal of First Energy.

Table 4 MVP Charge Estimate Removing First Energy

Midwest ISO Member LBA	Load (MWh)	Share of MVP Charges
ALTE	11,812,699	2.4%

⁸ The Midwest ISO designated the Michigan Thumb Loop 345 kV Project as an MVP in December 2010. For clarity, Applicants have not included the MISO cost allocation estimates for this project in this filing. Applicants are happy to provide this information upon request.

⁹ Because the membership of the Midwest ISO fluctuates, Applicants are making their best estimates with available data. Unfortunately, Applicants do not have available data related to the energy withdrawals for MidAmerican Energy Company, which recently joined the Midwest ISO, or for Big Rivers and Missouri River Energy Services which are expected to join the Midwest ISO shortly.

ALTW (ITCM)	19,024,043	3.9%
AMIL	42,664,554	8.8%
Amren MO	38,572,402	8.0%
Cinergy	61,688,474	12.7%
CONS	41,063,622	8.5%
CWLD (Columbia, MO)	1,342,970	0.3%
CWLP (Springfield, IL)	1,975,367	0.4%
DECO	48,148,731	9.9%
DPC	4,871,074	1.0%
First Energy*	0	0.0%
GRE	12,063,203	2.5%
Hoosier	376,067	0.1%
Indianapolis Power & Light	14,620,237	3.0%
Montana Dakota Utilities	2,458,995	0.5%
Michigan Electric Transmission Co.	22,396,211	4.6%
MGE	3,274,799	0.7%
MP	7,860,448	1.6%
MPW	825,100	0.2%
Northern Indiana Public Service Co.	17,295,121	3.6%
Northern States Power Co.	45,092,143	9.3%
OTP	7,656,495	1.6%
SIGE	6,751,799	1.4%
Southern Illinois Power Coop	0	0.0%
SMMPA	1,627,675	0.3%
UPPC	1,085,121	0.2%
WEC	31,775,353	6.6%
WPS	13,250,888	2.7%
Exports/Wheel Thru	25,044,135	5.2%
Total	484,617,726	100.0%

* First Energy assumed to have completed its departure from MISO

As can be seen, the MVP cost allocation responsibility for the load within the NSP and OTP Local Balancing Authority increases to 9.3% and 1.6%, respectively.

A second change stems from the MVP Order. The Midwest ISO had originally filed its cost allocation methodology for MVP projects based on a portion of those project costs that should be allocated to energy sales that were exported or wheeled to the PJM system. The FERC disagreed with this position and ordered the Midwest ISO to modify its MVP cost allocation methodology to exclude from any MVP project cost allocation calculations the energy Export Schedules or Through-and-Out Schedules (as defined in the Midwest ISO Tariff) that sink in the transmission system operated by PJM. This decision by the FERC is a point of contention and a number of parties (including Applicants) have asked FERC to reconsider this decision. Notwithstanding the requests for reconsideration on this issue, the Midwest ISO has complied with the MVP Order and modified its Tariff accordingly. This modification will be in effect unless and until the FERC amends the MVP Order on rehearing. Therefore, the estimated cost allocation responsibility calculation for MVP projects should be modified as well. Table 5 below provides an estimate of that modification.

Table 5 MVP Charge Estimate Removing First Energy & PJM Transactions

Midwest ISO Member LBA	Load (MWh)	Share of MVP Charges	Load (MWh) (no export)	Share of MVP Charges (no exports)
ALTE	11,812,699	2.4%	11,812,699	2.6%
ALTW (ITCM)	19,024,043	3.9%	19,024,043	4.1%
AMIL	42,664,554	8.8%	42,664,554	9.3%
Amren MO	38,572,402	8.0%	38,572,402	8.4%
Cinergy	61,688,474	12.7%	61,688,474	13.4%
CONS	41,063,622	8.5%	41,063,622	8.9%
CWLD (Columbia, MO)	1,342,970	0.3%	1,342,970	0.3%
CWLP (Springfield, IL)	1,975,367	0.4%	1,975,367	0.4%
DECO	48,148,731	9.9%	48,148,731	10.5%
DPC	4,871,074	1.0%	4,871,074	1.1%
First Energy*	0	0.0%	0	0.0%
GRE	12,063,203	2.5%	12,063,203	2.6%
Hoosier	376,067	0.1%	376,067	0.1%
Indianapolis Power & Light	14,620,237	3.0%	14,620,237	3.2%
Montana Dakota Utilities	2,458,995	0.5%	2,458,995	0.5%

Michigan Electric Transmission Co.	22,396,211	4.6%	22,396,211	4.9%
MGE	3,274,799	0.7%	3,274,799	0.7%
MP	7,860,448	1.6%	7,860,448	1.7%
MPW	825,100	0.2%	825,100	0.2%
Northern Indiana Public Service Co.	17,295,121	3.6%	17,295,121	3.8%
Northern States Power Co.	45,092,143	9.3%	45,092,143	9.8%
OTP	7,656,495	1.6%	7,656,495	1.7%
SIGE	6,751,799	1.4%	6,751,799	1.5%
Southern Illinois Power Coop	0	0.0%	0	0.0%
SMMPA	1,627,675	0.3%	1,627,675	0.4%
UPPC	1,085,121	0.2%	1,085,121	0.2%
WEC	31,775,353	6.6%	31,775,353	6.9%
WPS	13,250,888	2.7%	13,250,888	2.9%
Exports/Wheel Thru	25,044,135	5.2%	0	0.0%
Total	484,617,726	100.0%	459,573,591	100.0%

As can be seen, the MVP cost allocation responsibility for the load within the NSP and OTP Local Balancing Authority now increases to 9.8% and 1.7%, respectively. Please note that these percentages apply to the NSP and OTP pricing zones respectively. Both the NSP and OTP pricing zones contain load in addition to that of Xcel Energy and Otter Tail. Xcel Energy's load makes up about 89% of the total load in its pricing zone and Otter Tail's load makes up about 53% of load in its pricing zone.

Up to this point, all of the calculations have been made using the actual annual energy usage results from 2009. However, the cost allocation calculations and rates charged for MVP projects will in fact be based on the future and after-the-fact energy usage of the then current Midwest ISO members. Thus, to finish this discussion of what result to expect from the MVP cost allocation methodology an estimate of both the make-up of Midwest ISO members and their respective energy usage (and potential sales of energy to PJM) must be made. At this time, Applicants' best judgment is that the load of Xcel Energy will be allocated about 9.3% of the Brookings Project costs and the load of Otter Tail will be allocated about 0.8%. Thus, Xcel Energy can expect that of its total costs for the Brookings project it will

receive revenue from the Midwest ISO under Schedule 26-A to pay for about 90.7% of its revenue requirements. Similarly, Otter Tail can expect that of its total costs for the Brookings project it will receive revenue from the Midwest ISO under Schedule 26-A to pay for over 99% of its revenue requirements.

Therefore Xcel Energy's customers will pay about 9.3% of its revenue requirement for the Brookings Project and Otter Tail's customers will pay about 0.8% of its revenue requirement for the Brookings Project. Xcel Energy allocates approximately 4.62% of its system wide costs to its North Dakota customers and Otter Tail allocates 41.3% of its system wide costs to its North Dakota customers. Therefore, the estimated net cost of the Brookings Project, as represented by the investments made by each Applicant, to their respective North Dakota jurisdictional customers for each Applicant, after reflecting the estimated revenue received under the Midwest ISO tariff, is the Midwest ISO revenue requirements on approximately \$3,158,000 of investment for Xcel Energy (9.3% of \$735,000,000 x 4.62%) and approximately \$2,573,000 for Otter Tail (0.85% of \$735,000,000 x 41.3%).