

Direct Testimony and Schedules
Timothy J. Rogelstad

**STATE OF NORTH DAKOTA
BEFORE THE
NORTH DAKOTA PUBLIC SERVICE COMMISSION**

OTTER TAIL POWER COMPANY
ADVANCE DETERMINATION OF PRUDENCE –
CAPX2020 GROUP 1 APPLICATION

CASE No. PU-09-676

NORTHERN STATES POWER COMPANY
ADVANCE DETERMINATION OF PRUDENCE –
CAPX2020 GROUP 1 APPLICATION

CASE No. PU-09-678

DIRECT TESTIMONY IN SUPPORT OF
APPLICANTS' APRIL 29, 2011 COMPLIANCE FILING

OF

TIMOTHY J. ROGELSTAD

On Behalf of

APPLICANTS

NORTHERN STATES POWER COMPANY, A MINNESOTA
CORPORATION,

AND

OTTER TAIL POWER COMPANY

April 29, 2011

Joint Exhibit 13

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I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND EMPLOYMENT ADDRESS.

A. My name is Timothy J. Rogelstad and my business address is 215 South Cascade Street, Fergus Falls, Minnesota 56537.

Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?

A. I am employed by Otter Tail Power Company (“Otter Tail”) and my current position is Manager of Delivery Planning.

Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS AND EXPERIENCE.

A. I graduated from North Dakota State University in 1989 with a Bachelor Degree in Electrical and Electronics Engineering. I am currently a registered professional engineer in the states of Minnesota, North Dakota, and South Dakota. I have been an employee with Otter Tail for the past 21 years. I started with the company in 1989 as a substation design engineer in the System Engineering Department. In 1992, I transferred to the Transmission Planning Department as a Planning Engineer. In 1998, I was promoted to supervisor of Transmission Planning, and in 2002 I was promoted to Manager of Delivery Planning. My current job responsibilities include managing transmission planning, transmission contracts and capital budget development.

For most of my professional career, I have been involved with transmission planning. My experience ranges from being involved in building models for transmission studies and completing transmission studies, to acting as

1 project manager for a 100-mile, 230 kV transmission project, to managing a
2 department that is responsible for transmission planning at Otter Tail. I
3 have been involved in a number of planning activities at the regional level
4 with the Mid-Continent Area Power Pool (“MAPP”), the Midwest
5 Independent Transmission System Operator (“MISO”) and with other
6 organizations, including: MAPP Model Building Working Group, MAPP
7 Transmission Reliability Working Group, MAPP Line Loading Relief
8 Working Group, MAPP Design Review Subcommittee, MAPP Planning
9 Committee, former chair of the MAPP Red River Valley Subregional
10 Planning Group, MISO Planning Subcommittee, CapX2020 Technical
11 Team, CapX2020 Tariff Team, Upper Great Plains Transmission Coalition,
12 and Chair of the Minnesota Transmission Owners. My resume is attached as
13 Schedule 1.
14

15 **Q. WHAT HAS YOUR INVOLVEMENT BEEN IN THE CAPX2020 INITIATIVE?**

16 **A.** I have been involved in CapX2020 since the beginning stages of this
17 initiative, including the first meeting held in 2004 where utilities discussed
18 the need for a joint planning initiative. From that point on, I have been
19 actively leading and participating in the technical planning studies that have
20 resulted in the CapX2020 transmission proposals. I have also been involved
21 in cost allocation discussions related to CapX2020 as well as participating
22 and representing Otter Tail Power in the Vision Team and Management
23 Committee meetings for the CapX2020 Initiative.
24

1 **Q. FOR WHOM ARE YOU TESTIFYING?**

2 A. I am providing testimony on behalf of Northern States Power Company, a
3 Minnesota corporation (“Xcel Energy”), and Otter Tail Power Company
4 (“Otter Tail”), the Applicants in this proceeding.

5

6 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

7 A. The purpose of my testimony is to provide the following information in
8 support of Applicants’ Compliance Filing:

- 9
- 10 • A discussion of the purpose and timing of the Compliance Filing
Applicants are making in this proceeding;
 - 11 • A description of the Midwest Independent Transmission System
12 Operator, Inc.’s (“Midwest ISO”) Multi-Value Project (“MVP”)
13 designation and associated cost allocation methodology and the MVP
14 designation process;
 - 15 • The likely impact to Applicants and our customers of the MVP
16 designation for the Brookings Project; and
 - 17 • Why Applicants’ investment in and construction of the Brookings
18 Project continues to be reasonable and prudent.

19

20 **Q. WERE YOU INVOLVED IN THE PREPARATION OF THE COMPLIANCE**
21 **FILING IN THIS PROCEEDING?**

22 A. Yes. I provided information to the Applicants in their preparation of the
23 Compliance Filing. The Compliance Filing was prepared with my
24 participation, using information that I provided as well as the type of
25 information that is regularly relied upon by professionals in the ordinary
26 course of business.

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II. PURPOSE AND TIMING OF COMPLIANCE FILING

Q. WHAT IS THE PURPOSE OF APPLICANTS' COMPLIANCE FILING IN THIS PROCEEDING?

A. Applicants are making this Compliance Filing in compliance with ordering clause 4 and ordering clause 5 of the North Dakota Public Service Commission's (the "Commission") Order Adopting Settlement in this proceeding (the "October 6 Order") and pursuant to paragraph 4 of the CapX2020 Group 1 Projects Advance Determination of Prudence Request Settlement Agreement dated as of September 23, 2010 (the "Settlement").

The October 6 Order and Settlement required Applicants to file with the Commission two pieces of information:

- A filing providing additional information on the resolution of cost allocation issues relevant to the Brookings Project, including the impact on North Dakota. The filing is to include a level of detail on the application of the Brookings Project cost allocation comparable to what has been provided with regard to the other CapX2020 Group 1 Projects.
- A filing evidencing the continued prudence of the Brookings Project and seeking confirmation of continued prudence of the Project prior to Applicants executing a legally binding investment commitment for the major procurement and construction of the Brookings Project.

1 Applicants are fulfilling these two filing requirements with this Compliance
2 Filing. The white paper filed with the Compliance Filing contains the
3 information on the application of the Brookings Project cost allocation
4 comparable to what has been provided with regard to the other CapX2020
5 Group 1 Projects.

6
7 **Q. WHY ARE APPLICANTS MAKING THE COMPLIANCE FILING AT THIS TIME?**

8 A. Applicants are making the Compliance Filing at this time because we now
9 have sufficient information to meet the requirements of the October 6
10 Order and the Settlement. Applicants now know the likely cost allocation
11 methodology that will probably apply to the Brookings Project and, based
12 on this information, can demonstrate the continuing prudence of the
13 Brookings Project.

14
15 Additionally, the utilities participating in the Brookings Project (the
16 “Participating Utilities”) are currently anticipating signing the Ownership
17 Agreement and other ancillary agreements necessary to elect their investment
18 percentages and begin construction of the Brookings Project by the end of
19 June of this year. Applicants hope that by filing the Compliance Filing now
20 we have provided the Commission sufficient time to review and consider
21 this new information and find the continued prudence of the Brookings
22 Project to meet this projected schedule.

23
24 **Q. WHAT INFORMATION ARE YOU REFERRING TO IN YOUR ANSWER ABOVE?**

25 A. Mainly, the cost allocation methodology most likely applicable to the
26 Brookings Project has now been developed by the Midwest ISO and

1 approved by the Federal Energy Regulatory Commission (“FERC”). I
2 describe this cost allocation methodology in detail later in my testimony. By
3 knowing how the costs of the Brookings Project are likely to be recovered
4 by Applicants, Applicants can now provide this information to the
5 Commission, assess the impact of this approved cost allocation methodology
6 on our customers, and make a reasoned and informed analysis as to the
7 continued prudence of the Brookings Project. Based on the information
8 currently known, Applicants ultimately believe that under the new Midwest
9 ISO cost allocation methodology, our investment in and construction of the
10 Brookings Project continues to be reasonable and prudent.

11
12 **Q. WHY ARE THE PARTICIPATING UTILITIES PLANNING TO EXECUTE THE**
13 **OWNERSHIP AGREEMENT FOR THE BROOKINGS PROJECT BY THE END**
14 **OF JUNE OF 2011?**

15 A. The Brookings Project is currently scheduled to be fully in-service by the
16 second quarter of 2015. To meet this in-service date, the Participating
17 Utilities must be able to commence the construction process during the 2011
18 construction season. Execution of the Ownership Agreement by the end of
19 June is a necessary condition to being able to meet this schedule, and the
20 Participating Utilities are expecting to have all approvals in place in June
21 2011. These approvals include the receipt of all Critical Permits and
22 designation of the Brookings Project as an MVP by the Midwest ISO. Once
23 all of these approvals have been received, the Participating Utilities will be in
24 a position to elect their ownership shares, execute the Ownership
25 Agreement, and commence construction activities. Applicants hope that the
26 Commission will have found the continued prudence of the Brookings

1 Project by the time Applicants are prepared to execute the Ownership
2 Agreement for the Project. Applicants will gladly work with the
3 Commission to find ways to accommodate this schedule.
4

5 **Q. WHAT ARE THE CONSEQUENCES TO THE BROOKINGS PROJECT NOT**
6 **BEING PLACED IN-SERVICE ON SCHEDULE?**

7 A. The current construction schedule is driving the need to execute the
8 Ownership Agreement by the end of June of this year. Right-of-way
9 acquisition is scheduled to begin in fall of 2011 and field construction is
10 scheduled to begin in 2012. If these activities do not commence on
11 schedule, the Brookings Project could incur up to an additional \$15 million
12 in costs with delayed approval and construction.
13

14 From a system-wide perspective, the Brookings Project is a key foundational
15 facility for the transmission system in the Upper Midwest, and specifically
16 North Dakota. A significant delay in placing this project in-service could
17 have substantial ripple effects on transmission planning, construction, and
18 generator interconnections in the region. Since 2006, the Midwest ISO has
19 been modeling the transmission system for planning and generator
20 interconnection purposes assuming that the Brookings Project will be in-
21 service as scheduled. A delay in placing the Brookings Project in-service
22 could have a significant delay or impact on the planning for and construction
23 of additional transmission facilities that rely on the existence of the
24 Brookings Project. These types of projects include the Big Stone –
25 Brookings transmission project and the Big Stone – Ellendale transmission
26 project. In addition, since the Brookings Project is a key facility in the

1 current Midwest ISO interconnection study model, the Brookings Project is
2 also a major contingency for generators seeking to interconnect to the
3 transmission system. If the Brookings project is not in-service in the current
4 time frame projected, it will change the ability of new generators to
5 interconnect to the system, including some projects in North Dakota.
6

7 III. MULTI-VALUE PROJECTS

8 9 Q. WHAT IS A MULTI-VALUE PROJECT?

10 A. As the Midwest ISO described in its July 15, 2010 filing with the Federal
11 Energy Regulatory Commission (“FERC”), MVPs are a new transmission
12 project and cost allocation category for transmission projects that enable
13 reliable and economic delivery of energy in support of documented energy
14 policy mandates and address, through the development of a robust
15 transmission system, multiple reliability and/or economic issues affecting
16 multiple transmission zones.¹
17

18 Q. WHAT CRITERIA MUST A TRANSMISSION PROJECT MEET TO BE 19 DESIGNATED AN MVP?

20 A. The Midwest ISO proposed that for a transmission project to qualify as an
21 MVP, it must meet at least one of the following three criteria:
22 • Criterion 1 – The project must be developed through the MTEP
23 process for the purpose of enabling the transmission system to deliver
24 energy reliably and economically support documented energy policy

¹*Midwest Independent Transmission System Operator, Inc.* Initial Filing, Docket No. ER10-1791-000 (July 15, 2010) (“MVP Filing”).

1 mandates or laws that directly or indirectly govern the minimum of
2 maximum amount of energy that can be generated by specific types of
3 generation in a manner that is more reliable and/or economic than it
4 otherwise would be without the transmission upgrade; and/or

- 5 • Criterion 2 – The project must provide multiple types of economic
6 values across multiple pricing zones with a total project benefit-to-
7 cost ratio of 1.0 or higher, as defined in new Tariff language.

8 Reductions in LMP are considered a single type of economic value;
9 and/or

- 10 • Criterion 3 – The project must address at least one Transmission
11 Issue (defined below) associated with a projected NERC violation and
12 at least one economic-based Transmission Issue that provides
13 economic value across multiple pricing zones. To meet this criterion,
14 the project must show a quantifiable economic value above its total
15 project costs.

16
17 In addition to meeting at least one of the criteria listed above, MVP eligibility
18 also depends on a transmission project satisfying all of the following
19 requirements:

- 20 • Not approved for construction by the Midwest ISO Board of
21 Directors (i.e. included in the MTEP), in-service or under
22 construction prior to July 16, 2010.
- 23 • Must not be, or contain, one of the projects specifically listed as
24 ineligible.

- 1 • Total cost must be greater than or equal to \$20,000,000 or 5% of the
- 2 constructing Transmission Owner's ("TO") net plant, whichever is
- 3 lesser.
- 4 • Must include facilities above 100 kV.
- 5 • Is not solely driven by an Interconnection or Transmission Service
- 6 Request.

7

8 **Q. HOW DID THE MIDWEST ISO PROPOSE TO ALLOCATE THE COSTS OF**
9 **MVPs?**

10 A. The Midwest ISO proposed to allocate the costs of MVPs through an energy
11 (per MWh) charge to load, exports and wheel-throughs. The MVP charge
12 will be based on the annual revenue requirements reported by each Midwest
13 ISO Transmission Owner for projects that have been designated MVPs.
14 What this essentially means is that the owners of an MVP will recover their
15 revenue requirement for a MVP from charges to all load in the Midwest
16 ISO, energy exports out of the Midwest ISO and transactions that originate
17 and end outside of the Midwest ISO but use the Midwest ISO system
18 (wheel-throughs) based on the amount of energy the load, exports, and
19 wheel-throughs extracted from the system. This results in specific utilities'
20 load essentially paying MVP charges in proportion to that utility's load
21 relative to the amount of total load within the Midwest ISO footprint plus
22 energy exported or wheeled through the Midwest ISO, *i.e.* a load share ratio
23 basis.

24

1 **Q. CAN YOU PLEASE PROVIDE AN EXAMPLE OF HOW THIS WOULD WORK?**

2 A. The white paper provided with our Compliance Filing provides an in-depth
3 description of how this methodology works and applies this methodology
4 for the revenue requirements for the Brookings Project.

5

6 **Q. HAS THE FERC APPROVED THE CREATION OF THE MVP TRANSMISSION
7 PLANNING AND COST ALLOCATION CATEGORY AND THE PROPOSED COST
8 ALLOCATION METHODOLOGY FOR MVPs?**

9 A. Yes. On December 16, 2010, the FERC approved the MVP category and
10 cost allocation methodology with a few slight modifications.² Upon issuance
11 of the MVP Order, the changes to the Midwest ISO Tariff approved in that
12 order are legally in effect as the Midwest ISO's currently-effective cost
13 allocation process for eligible projects.

14

15 **Q. WHAT MODIFICATIONS DID THE FERC MAKE TO THE MIDWEST ISO'S
16 PROPOSAL?**

17 A. The main change ordered by FERC in the MVP Order is that transactions
18 sinking in the PJM Interconnection ("PJM") footprint should not be
19 assessed a charge for MVPs.

20

21 **Q. WHAT EFFECT WILL THIS MODIFICATION HAVE ON THE BROOKINGS
22 PROJECT AND/OR TO APPLICANTS?**

23 A. The main effect of disallowing the Midwest ISO to assess the MVP charge
24 to transactions sinking in PJM is to lower the total amount of transactions
25 over which the revenue requirements for an MVP will be collected. In

²*Midwest Independent Transmission System Operation, Inc.*, 133 FERC ¶ 61,221 (2010) ("MVP Order").

1 essence, the percentage of the revenue requirement collected from load
2 within the Midwest ISO will slightly increase.

3
4 **Q. IS THE MVP ORDER SUBJECT TO ANY FURTHER SCRUTINY OR REVIEW?**

5 A. Yes. Many parties to the proceeding have filed requests for rehearing or
6 answers to requests for rehearing on various issues identified in the MVP
7 Order, including the portion of the order which does not allow the Midwest
8 ISO to assess the MVP charge to transactions sinking in PJM. Please see
9 footnote 3 of the Compliance Filing for a list of these parties. FERC has
10 not yet issued an order on rehearing but has issued a procedural order
11 allowing more time to consider all of the requests. Should FERC issue an
12 order on rehearing, that order may be subject to further rehearings and
13 eventually an appeal to the courts.

14
15 I note, however, that requests for rehearing do not stay the effectiveness of
16 the MVP Order. Therefore, the FERC approved changes to the Midwest
17 ISO Tariff are currently effective and applicable to all users of the Midwest
18 ISO transmission system, including Applicants.

19
20 **Q. COULD THE MVP ORDER BE MODIFIED OR OVERTURNED ON**
21 **REHEARING OR APPEAL?**

22 A. Theoretically, yes. The FERC could overturn or modify the MVP Order on
23 rehearing or the MVP Order could be reversed or modified on appeal. That
24 said, I believe that the chances of substantial modifications to the MVP
25 Order on rehearing or appeal are relatively low. First, the Midwest ISO
26 Tariff proposal was developed through a stakeholder process that allowed

1 input from all sections. Second, the MVP Order is a thoroughly reasoned
2 and well-justified order that we believe will withstand judicial scrutiny. It is
3 Applicants' judgment that any changes to the MVP Order either on
4 rehearing or appeal would be on the margins and not fundamentally change
5 the cost allocation concepts underlying the MVP Order.

6
7 The bottom line is that because all regulatory orders are ultimately subject to
8 change, Applicants consider it prudent to move forward upon the Brookings
9 Project receiving the MVP designation from the Midwest ISO under the
10 Tariff currently in effect and that the currently effective Tariff provides the
11 necessary level of certainty to invest in this major project.

12
13 **Q. HAS THE BROOKINGS PROJECT BEEN OFFICIALLY DESIGNATED AS AN**
14 **MVP?**

15 **A.** Not yet but Applicants understand that the Midwest ISO will vote on the
16 MVP designation for the Brookings Project at its June 2011 Board of
17 Directors meeting. Applicants have been working toward meeting all of the
18 necessary requirements to have the Brookings Project designated as an MVP
19 by the Midwest ISO Board of Directors at their June 2011 meeting.

20
21 As noted in the Compliance Filing, the Midwest ISO has identified the
22 Brookings Project as one of sixteen "Candidate" transmission projects from
23 across the Midwest ISO footprint that the Midwest ISO believes would be
24 eligible for MVP status. Additionally, the Midwest ISO has recognized that
25 the Brookings Project's regulatory authority to construct, cost, and in-service
26 timing are dependent upon June 2011 MVP certainty. Attached as

NDPSC Case Nos. PU-09-676, PU-09-678
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1 Schedule 2 is a power point slide from a recent Midwest ISO Board Of
2 Directors System Planning meeting showing the key factors that the Midwest
3 ISO believes are driving approval of the Brookings Project at the June 2011
4 Board of Directors meeting. These factors include: (1) Project construction
5 requirements, such as the possibility of a \$15 million cost increase due to a
6 delay; (2) the near completion of the state regulatory approval process; (3)
7 the Project's status in the planning process, including the fact that the
8 Brookings Project has been included in the planning process since 2006 and
9 it has been shown to be an effective solution in many generator
10 interconnection studies; and (4) the Project's MVP justification has been
11 completed.

12
13 **Q. HAS THE MIDWEST ISO PROVIDED ANY ADDITIONAL INFORMATION AS**
14 **TO IF THE BROOKINGS PROJECT WILL BE DESIGNATED AN MVP THIS**
15 **JUNE?**

16 **A.** As a matter of fact, yes. At its April 19, 2011 System Planning Meeting, the
17 Midwest ISO indicated that the Brookings Project would be recommended
18 for designation as an MVP at the June Board of Directors meeting.
19 Attached as Schedule 3 is a copy of the presentation made at that meeting.

20
21 I note that the Midwest ISO, in that presentation, has determined that the
22 Brookings Project will mitigate significant reliability issues on the regional
23 transmission system. Specifically, the Midwest ISO has determined that the
24 Brookings Project would mitigate approximately 1,400 events resulting in the
25 loss of a single element which results in heavily loaded or overloaded
26 transmission lines and transformers. Additionally, the Midwest ISO has

NDPSC Case Nos. PU-09-676, PU-09-678
Rogelstad Direct

1 determined that the Brookings Project would mitigate approximately 1,900
2 events resulting in the loss of multiple elements which result in heavily
3 loaded or overloaded transmission lines and transformers.
4

5 **Q. YOU MENTIONED THAT THE BROOKINGS PROJECT MVP JUSTIFICATION**
6 **HAS BEEN COMPLETED. WHAT DOES THIS MEAN?**

7 A. The Midwest ISO staff must complete a series of studies and present a
8 business case or need statement to the Midwest ISO Board of Directors for
9 a transmission project to be eligible to be designated as an MVP. These
10 include the completion of Midwest ISO system studies to identify related
11 underlying system upgrades that would be included in the Brookings
12 Project's scope; completion of other technical studies including stability
13 analyses and resolution of any issues that are uncovered; and completion of a
14 short circuit analysis. This study work has been completed for the
15 Brookings Project. The Participating Utilities expect Midwest ISO staff to
16 complete the work on the business case by May 1, 2011.
17

18 Given the completion of the necessary preliminary work, the listing of the
19 Brookings Project as a Candidate MVP, and the long-standing, system-wide
20 need for this facility, Applicants are confident that the Midwest ISO will
21 designate the Brookings Project as an MVP in June.
22

1 **Q. WHAT IS THE SPECIFIC IMPACT TO XCEL ENERGY'S NORTH DAKOTA**
2 **CUSTOMERS OF THE BROOKINGS PROJECT BEING DESIGNATED AS AN**
3 **MVP?**

4 A. As described in more detail in the white paper submitted with our
5 Compliance Filing, all of Xcel Energy's retail customers will be allocated
6 approximately 9.3% of the costs of the Brookings Project. This means that
7 Xcel Energy's North Dakota customers will be responsible for revenue
8 requirements on approximately \$3.2 million of capital investment. I note
9 that when Applicants originally filed their Application in October of 2009,
10 we had estimated that Xcel Energy's North Dakota customers would have
11 been responsible for the revenue requirements on approximately \$23.2
12 million of investment.

13
14 **Q. PLEASE DESCRIBE HOW YOU ARRIVED AT THESE CALCULATIONS.**

15 A. The white paper submitted with our Compliance Filing provides an in-depth
16 description of these calculations.

17
18 **V. CONTINUED PRUDENCE OF THE BROOKINGS PROJECT**

19
20 **Q. WHY IS APPLICANTS' INVESTMENT AND CONSTRUCTION OF THE**
21 **BROOKINGS PROJECT REASONABLE AND PRUDENT?**

22 A. As Applicants demonstrated throughout the course of this proceeding, the
23 Group 1 Projects, including the Brookings Project, represent a prudent and
24 coordinated set of transmission improvements designed to address both near
25 and long-term overall system reliability needs of our customers as well as the
26 needs of the other utilities in the region. Importantly, the Group 1 Projects

1 provide a foundation for expansion to address future growth. Under any
2 future scenario, the Brookings Project is an integral part of this platform to
3 meet near and long-term needs, including future development of major
4 North Dakota transmission projects.

5
6 **Q. WHAT ARE SOME SPECIFIC SYSTEM BENEFITS PROVIDED BY THE**
7 **BROOKINGS PROJECT?**

8 A. The Group 1 Projects, including the Brookings Project, will support
9 generation expansion in North Dakota and other parts of the region. The
10 record in this proceeding shows that the Group 1 Projects, combined, will
11 result in an overall incremental increase to the North Dakota Export
12 (“NDEX”) Limit of 700-800 MW. The record in this proceeding also shows
13 that the Brookings Project will allow the continued development of
14 generation in western Minnesota and eastern South Dakota as well as
15 alleviate some strain on the transmission system in North Dakota by
16 strengthening the transmission network North Dakota based generation
17 relies on to more eastward and North Dakotans rely on to obtain reliable
18 service.

19
20 The Brookings Project also provides a foundation for the construction of
21 future MVP projects. For example, the Midwest ISO has identified the Big
22 Stone – Brookings transmission project and the Big Stone – Ellendale
23 transmission project as likely MVPs. These projects would not be feasible
24 without the Brookings Project.

25

1 **Q. WHY DOES THE BROOKINGS PROJECT CONTINUE TO BE PRUDENT?**

2 A. Throughout this proceeding, Applicants have demonstrated that the
3 Brookings Project is a reasonable and prudent investment. The Commission
4 has found the reasonableness and prudence of the Brookings Project in the
5 October 6 Order. No events in the intervening months between the
6 Commission issuing the October 6 Order and Applicants filing of the
7 Compliance Filing have changed the fundamental needs for the Brookings
8 Project nor the fact that the Brookings Project is a reasonable and prudent
9 way to meet these needs.

10

11 The Brookings Project continues to be necessary for regional reliability,
12 community service reliability, and generator outlet purposes. The continued
13 need for the Brookings Project as a key component of the regional
14 transmission system foundation provided by the Group 1 Projects is
15 evidenced by the Midwest ISO's additional study work and justification for
16 designating the Brookings Project as an MVP.

17

18 **Q. HOW WILL THE MVP DESIGNATION FOR THE BROOKINGS PROJECT**
19 **IMPACT THE PRUDENCE OF THE PROJECT?**

20 A. The development of the MVP category and of a cost allocation methodology
21 applicable to the Brookings Project was a necessary step to allow the
22 Participating Utilities to move forward with their investment in and
23 construction of the Brookings Project. With the FERC's approval of the
24 MVP cost allocation methodology, a significant issue related to cost recovery
25 of the Project, which had been uncertain, has now been addressed. With the

1 development of the MVP cost allocation methodology, Applicants now have
2 the certainty they need to move forward with the Brookings Project.

3
4 The development of the MVP cost allocation methodology does not alter or
5 affect the need for the Brookings Project nor the reasonableness and
6 prudence of investing in and constructing the Brookings Project to meet
7 these demonstrated needs. It does, however, bolster the business case for
8 Applicants' investment in the Project.

9

10 **Q. DOES THIS CONCLUDE YOUR PRE-FILED TESTIMONY?**

11 A. Yes.

12

Timothy J. Rogelstad
Otter Tail Power Company
215 S Cascade St
Fergus Falls, MN 56537

Professional Experience

Manager of Delivery Planning, Otter Tail Power Company 2002 to Present

- Accountable for managing Transmission Planning, transmission contracts, capital budget development and monitoring and overseeing the project management for Big Stone transmission.
- Ensure that Otter Tail has an adequate transmission system to reliably and economically serve its customers.
- Ensure compliance with NERC Planning Standards
- Negotiate transmission contracts.
- Represent Otter Tail on various industry working groups and committees.
- Manage the development and monitoring of Otter Tail Power capital spending.
- Manage the project management for Big Stone transmission.

Supervisor of Transmission Planning, Otter Tail Power Company 1998 to 2002

- Supervise Transmission Planning staff.
- Negotiate transmission contracts with neighboring utilities.
- Represent Otter Tail on key MAPP/MISO committees and working groups.
- Ensure compliance with NERC Planning Standards.
- Project Manager for a 100 mile 230 kV transmission project.

Planning Engineer, Otter Tail Power Company 1992 to 1998

- Conduct transmission studies.
 - Powerflow analysis
 - Stability analysis
 - Economic analysis
- Review transmission studies from neighboring utilities.
- Build and submit transmission modeling information.
- Participate in MAPP working groups regarding transmission planning issues.

Engineer, System Engineering, Otter Tail Power Company 1989 to 1992

- Conduct relay coordination and distribution coordination studies.
- Design transmission substation protection schemes.
- Field check-out and commissioning of new transmission substation installations and modifications.

Education

- Bachelors of Science, Electrical and Electronics Engineering, North Dakota State University, 1989.
- Registered professional engineer in the states of Minnesota (1994 to present), North Dakota (1994 to present), and South Dakota (1994 to present).
- Participated in numerous continuing education programs, and currently enrolled in an Accelerated Leadership Program for Otter Tail Cooperation.

Affiliations

- Member of the Institute of Electrical and Electronics Engineers (IEEE), past chair of Red River Valley Section
- Member of the Minnesota Society of Professional Engineers
- Former member MAPP Model Building Working Group
- Former member MAPP Transmission Reliability Working Group
- Former member MAPP Line Loading Relief Working Group
- Former member MAPP Design Review Sub-Committee
- Past chair of the MAPP RRV SPG (Red River Valley Sub-Regional Planning Group)
- Current participant MISO Planning Sub-Committee
- Current participant CAPX Technical Team
- Current participant CAPX Tariff Team
- Current participant Upper Great Plains Transmission Coalition
- Chair, Minnesota Transmission Owners

Brookings-Twin Cities Approval Timing

Approval prior to the full Candidate MVP Portfolio driven by several key factors

- **Project construction requirements**
 - Could incur up to an additional \$15 million in costs with delayed approval and construction
 - Right-of-way acquisition scheduled to begin in fall of 2011
 - Field construction scheduled to begin in 2012
 - Commercial agreements dependent on cost allocation required prior to the start of construction
- **Project state regulatory approvals**
 - MN regulators have approved Certificate of Need and Route Permit
 - SD regulatory Facility Permit decision expected in June 2011
- **Status in planning process**
 - Included in planning process since MTEP06
 - Proven as an effective solution in many Generator Interconnection studies
- **Project's MVP justification has been completed**
 - Full business case will be completed by May 1

The Brookings Project's regulatory authority to construct, cost, and in service timing are dependent upon June 2011 MVP certainty.



The logo for Midwest Energy Services, featuring the word "Midwest" in a large, bold, sans-serif font, with "Energy Services" in a smaller font below it. To the right of the text is a small icon of a stylized sun or flower.

June Project Approvals

System Planning Committee

April 19, 2011

Midwest ISO Planning Objectives

Fundamental
Goal

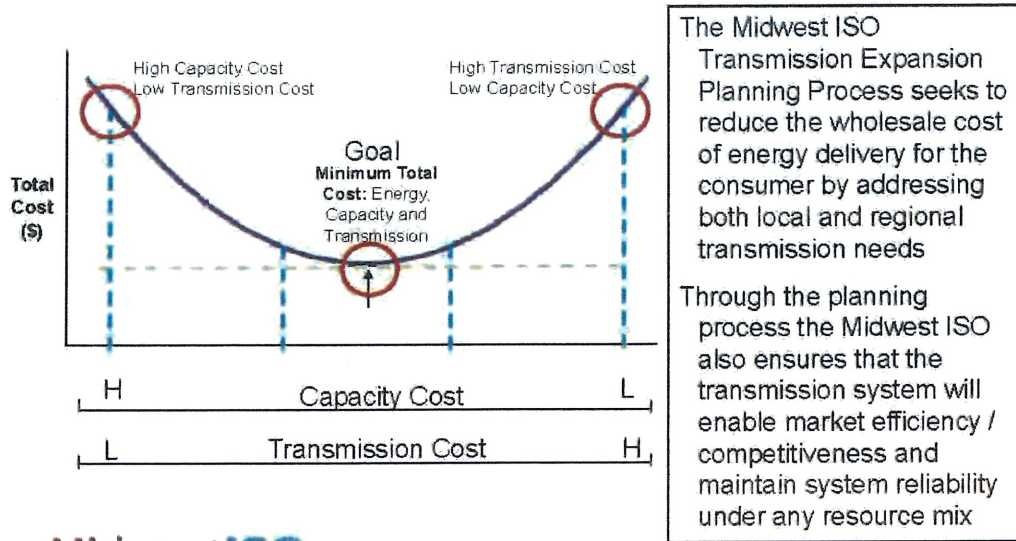
The development of a comprehensive expansion plan that meets reliability needs, policy needs, and economic needs

Midwest ISO
Board of
Director
Planning
Principles

- Make the benefits of a competitive energy market available to customers by providing access to the lowest possible electric energy costs
- Provide a transmission infrastructure that safeguards local and regional reliability and supports interconnection-wide reliability
- Support state and federal renewable energy objectives by planning for access to all such resources (e.g. wind, biomass, demand side management)
- Provide an appropriate cost allocation mechanism
- Develop a transmission system scenario model and make it available to state and federal energy policy makers to provide context and inform the choices they face



Balancing Generation and Transmission Investment

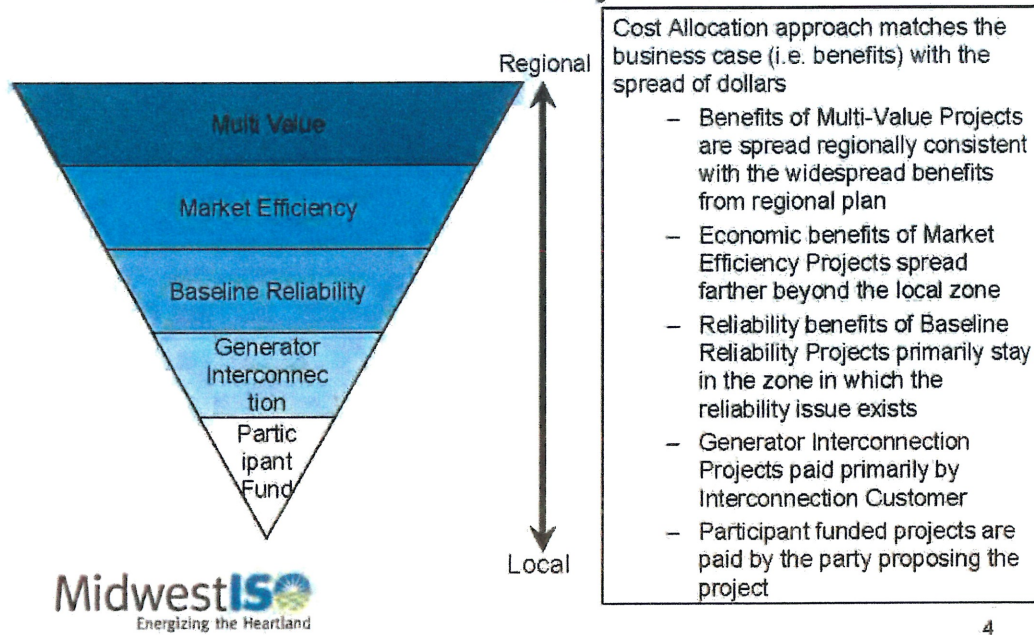


The Midwest ISO Transmission Expansion Planning Process seeks to reduce the wholesale cost of energy delivery for the consumer by addressing both local and regional transmission needs

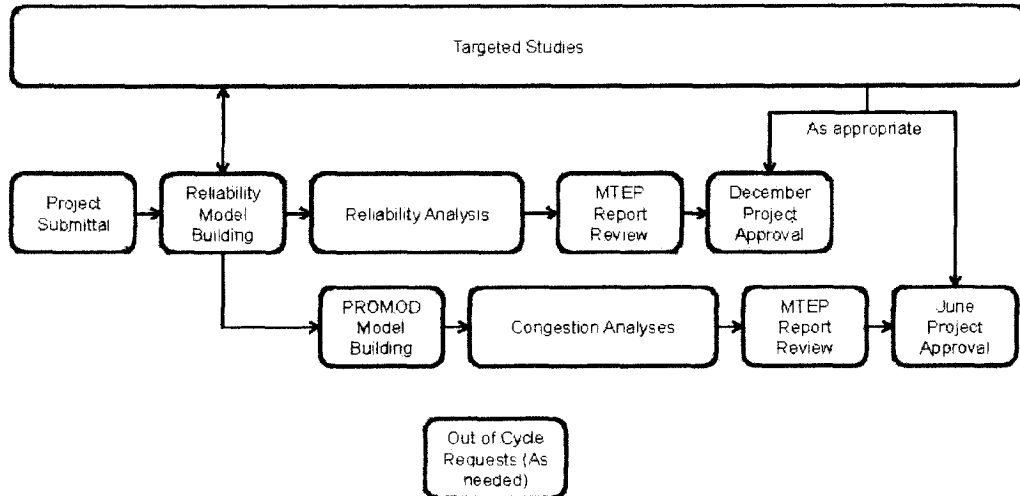
Through the planning process the Midwest ISO also ensures that the transmission system will enable market efficiency / competitiveness and maintain system reliability under any resource mix



Planning and Cost Allocation Are Inextricably Linked



MTEP Process Overview*



*Typical process shown. Reliability or economic projects may be approved in June or December, respectively, on an as-needed basis.

Standard vs. Out of Cycle Approval

	Standard (June / December) Approval	Out of Cycle Approval
Frequency	Annual as necessary	Exception basis when justified by urgent need
Driver	Normal completion of business case	Urgent project need
Approval Date	June	As dictated by urgency
Stakeholder Vetting Period	Typically 5-6 months spanning 3 SPMs (E.g. Dec/Apr/June, or Sep/Dec/Apr), or longer for projects in study for extended periods	Less than typical period due to urgency

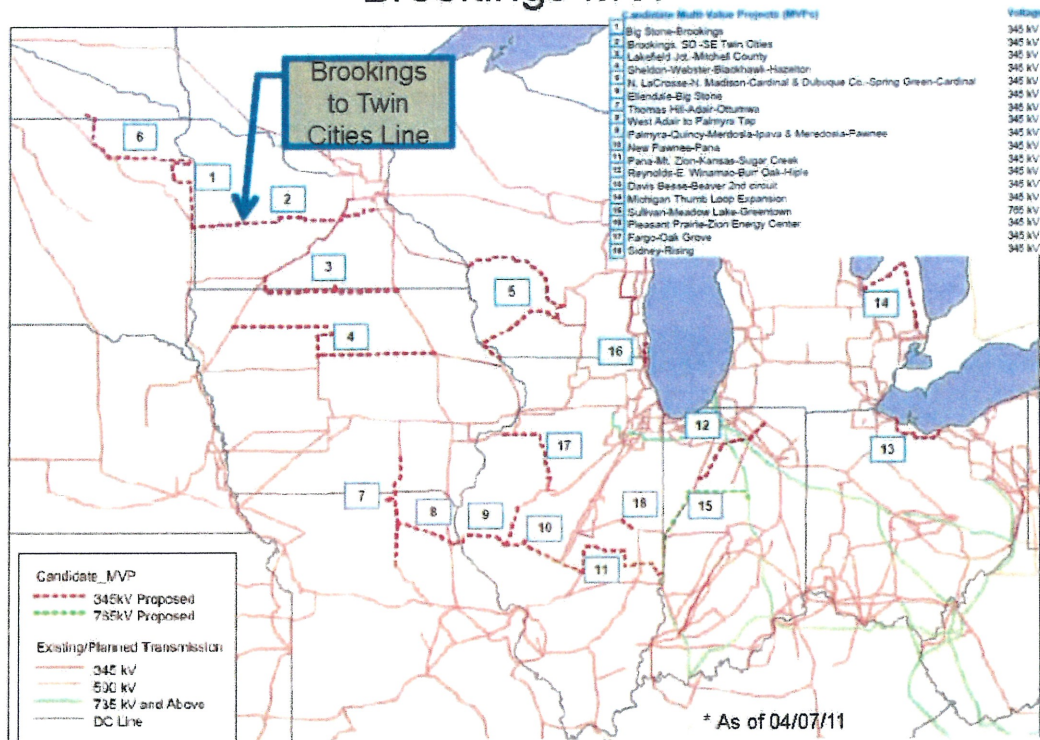


Expected June Project Recommendations

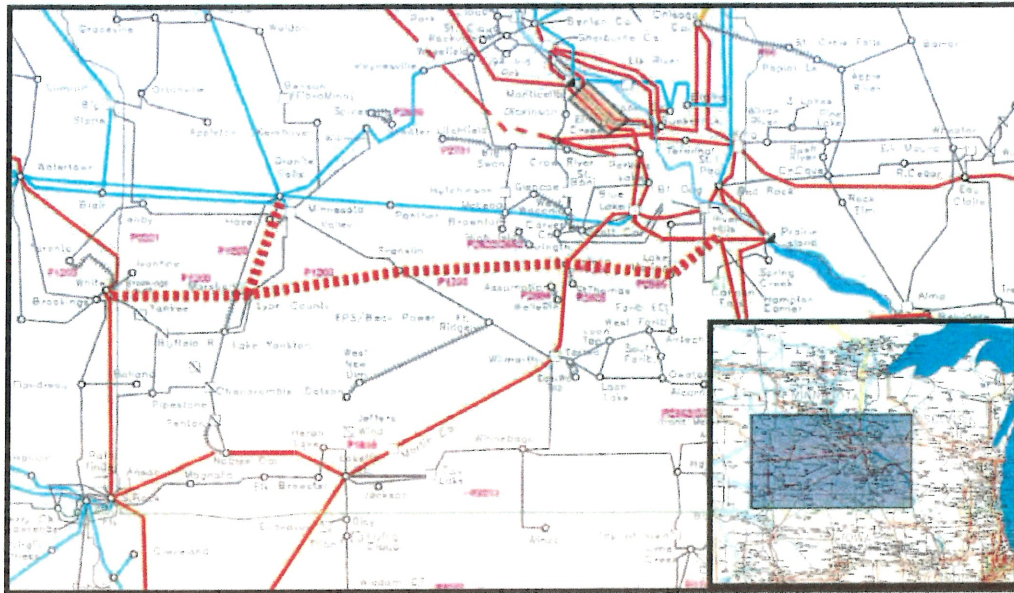
- **Two mid-year approval projects**
 - One MVP (Brookings County to Twin Cities project)
 - One reliability project to control chronic heavy flow across the Upper Peninsula of Michigan through the Straits of Mackinac
 - Working on this business case completion for May SPC
- **One Out-of-Cycle project to address urgent 40 MW of new load addition from a new foundry operation to produce large castings for wind turbine industry in the city of Eaton Rapids, Michigan**



Brookings MVP



Brookings MVP



Brookings County – Twin Cities

- 237 mile 345 kV line from Brookings County SD to Twin Cities area (Hampton Corner), MN.
- Project includes multiple 345 kV line segments, and a subsystem of transformations supporting the lower voltage system at intermediate substations on line path, and minor 115 kV related upgrades
- Estimated cost: \$735,400,000
- Delivers energy from the SW Minnesota/SE S. Dakota and surrounding wind rich area to the Twin Cities of Minnesota and beyond
- Wind in the area impacting the line includes 3100 MW of connected wind needed to meet the RPS energy requirements



Why are we Seeking a June Approval for Brookings MVP Project?

- Project developer has urged approval of this project in June for several reasons
- Regulatory Risks
 - Project has already been approved by the Minnesota Public Utilities Commission
 - Order specifies a required in-service date of no later than June 2015 (4 years)
 - Delay of Midwest ISO approval to December of 2011 would cause loss of one of the 4 winter construction periods essential for achieving the June 2015 in service date
- Construction and supply chain costs
 - Could incur up to an additional \$15 million in costs due to material supply and construction scheduling modifications
 - Right-of-way acquisition scheduled to begin in fall of 2011
 - Material delivery timed for field construction scheduled to begin in 2012
 - Commercial agreements dependent on cost allocation required prior to the start of construction



MVP Criterion 1

A Multi Value Project must

- Enable 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.



Characteristics of Multi Value Projects Portfolios (MVPs)

- **Multi Value Project Portfolios consist of projects that provide widespread benefits commensurate with cost by**
 - Enabling access to the market's generation portfolio as it changes (including but not limited to wind)
 - Reducing congestion costs and generation needs by increasing transfer capacity
 - Increasing system reliability
- **MVPs are evaluated on a portfolio basis to ensure reasonable alignment between benefits and cost allocations**
 - Candidate portfolios are developed based on expectations that the portfolio of projects will produce region-wide benefits
 - Analysis of the portfolio establishes the value of the portfolio and refines the portfolio design to ensure the value is distributed similar to the way the cost is distributed

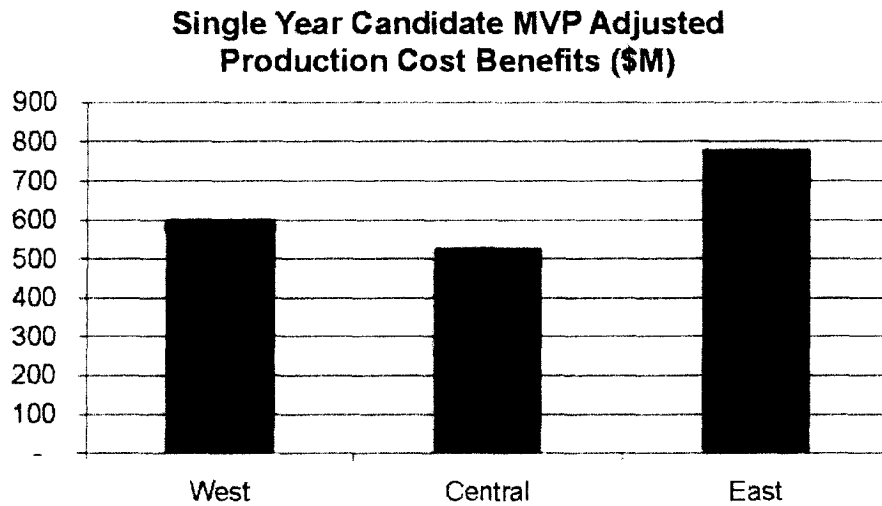


Brookings-Twin Cities Enables RPS Requirements

- Brookings Co – Twin Cities project mitigates 3,300 different transmission outage conditions which would otherwise result in heavily loaded or overloaded system elements – some leading to cascading outages
- The full Midwest ISO RPS requirements cannot be reliably achieved without the Brookings project as a part of the MVP portfolio
 - Eliminates need to curtail the delivery of approximately 2,049 MW of connected wind
 - 15% of RPS energy requirement



Additional Project and Portfolio Benefits



- The Brookings-Twin Cities project is a part of the broader Candidate MVP Portfolio which provides widespread benefits across the footprint
- The 20 year benefit / cost ratio for the portfolio, when only Adjusted Production Cost benefits are included, is 2.14

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Business Case

- A full report on the business case for the Brooking – Twin Cities project, when considered as part of the Candidate MVP Portfolio, will be provided in May
- Report will include additional details on
 - System Stability
 - Short circuit duties
 - Production cost benefits of portfolio under various Futures
 - Capacity value of remote wind siting enabled by portfolio
 - Value of deferred or avoided project investment



June Approval Review Timeline

- **Early May**
 - Draft report completed and sent to Planning Advisory Committee for review
 - Draft report sent to System Planning Committee
- **Mid May**
 - System Planning Committee meeting and review
- **Early June**
 - Final report reflecting stakeholder feedback sent to System Planning Committee and Board of Directors
- **Mid June**
 - System Planning committee meeting and recommendation
 - Board of Directors meeting and recommendation



Appendix



The Midwest ISO transmission cost allocation approach seeks to match the business case with the allocation method

Allocation Category	Driver(s)	Allocation to Beneficiaries
Participant Funded ("Other")	Transmission Owner identified project that does not qualify for other cost allocation mechanisms.	Paid by requestor (local zone)
Generator Interconnection Project	Interconnection Request	Paid for by requestor; 345 kV and above 10% postage stamp to load
Market Efficiency Project ¹	Reduce market congestion when benefits are 1.2 to 3 times in excess of cost	Distribute to planning regions commensurate with expected benefit; 345 kV and above 20% postage stamp to load
Baseline Reliability Project	NERC Reliability Criteria	Primarily shared locally through Line Outage Distribution Factor Methodology; 345 kV and above 20% postage stamp to load
Multi Value Project	Address energy policy laws and/or provide widespread benefits across footprint	100% postage stamp to load



1. Market Efficiency Project cost allocation methodology currently under review by stakeholders

Brookings-Twin Cities Reliability Impacts Mitigated

- 1,400 events resulting in loss of single element resulting in heavily loaded or overloaded transmission lines and transformers.
 - Thermal constraints on wind outlets as well as transmission delivery paths primarily to the twin cities.
 - 19 transmission facilities
 - 36 sub-transmission facilities
 - Loadings on these facilities range from 96% to 171% of design rating
 - Many of these loading levels are so high as to result in uncontrolled tripping or cascading thermal failures.

Brookings-Twin Cities Reliability Impacts Mitigated

- 1,900 events resulting in loss of multiple elements resulting in heavily loaded or overloaded transmission lines and transformers.
 - Thermal constraints on wind outlets as well as transmission delivery paths primarily to the twin cities.
 - 24 transmission facilities
 - 36 sub-transmission facilities
 - Loadings on these facilities range from 95% to 172% of design rating



**STATE OF NORTH DAKOTA
BEFORE THE
NORTH DAKOTA PUBLIC SERVICE COMMISSION**

OTTER TAIL POWER COMPANY
ADVANCE DETERMINATION OF PRUDENCE –
CAPX2020 GROUP 1 APPLICATION

CASE No. PU-09-676

NORTHERN STATES POWER COMPANY
ADVANCE DETERMINATION OF PRUDENCE –
CAPX2020 GROUP 1 APPLICATION

CASE No. PU-09-678

VERIFICATION

STATE OF MINNESOTA)
) ss.
COUNTY OF OTTER TAIL)

TIMOTHY J. ROGELSTAD, being first duly sworn on oath, deposes and says that he is Manager of Delivery Planning for Applicant Otter Tail Power Company in the above captioned matter, that the testimony and schedules submitted in the above captioned matter under his name were prepared under his direction, that he knows the contents thereof, and that the same is true and correct to the best of his knowledge and belief.

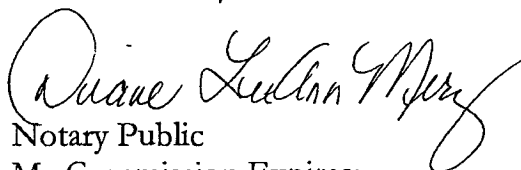
[SIGNATURE PAGE FOLLOWS]

NDPSC Case Nos. PU-09-676, PU-09-678
Rogelstad Direct



TIMOTHY J. ROGELSTAD

Subscribed and sworn to before me this 28th day of April, 2011.



Notary Public

My Commission Expires:

3792137v7



NDPSC Case Nos. PU-09-676, PU-09-678

Rogelstad Direct