

215 South Cascade Street
PO Box 496
Fergus Falls, Minnesota 56538-0496
218 739-8200
www.otpc.com (web site)



May 31, 2013

Darrell Nitschke
Executive Secretary/Director of Administration
North Dakota Public Service Commission
State Capitol - 600 East Boulevard
Bismarck, ND 58505-0480

**RE: Case No. PU-13-____
In the Matter of Otter Tail Power Company's Application for a Certificate of Public
Convenience and Necessity for a 345 kV Transmission Line from Ellendale, North
Dakota to the North Dakota/South Dakota Border**

Dear Mr. Nitschke:

Enclosed for filing in the above-referenced matter is Otter Tail Power Company's (Otter Tail) Application for a Certificate of Public Convenience and Necessity to construct and operate approximately 10 miles of 345 kV electric transmission line in North Dakota as part of the Big Stone South to Ellendale MISO Multi Value Project (Big Stone South to Ellendale MVP). The entire Big Stone South to Ellendale MVP extends from a new substation¹ located near Big Stone City, South Dakota to a new substation to be constructed by Montana-Dakota Utilities Co. (Montana-Dakota) near Ellendale, North Dakota, comprising a total of approximately 160 to 170 miles of 345 kV transmission line.

With this Application, Otter Tail and Montana-Dakota intend to jointly own the Big Stone South to Ellendale MVP. Montana-Dakota is making a separate Application for a Certificate of Public Convenience and Necessity for its share of the Big Stone South to Ellendale MVP. For the efficiency of all parties, Otter Tail suggests the two Applications (Otter Tail's and Montana-Dakota's) for Certificates of Public Convenience and Necessity for the Big Stone South to Ellendale MVP be considered simultaneously by the North Dakota Public Service Commission.

Otter Tail submits a check in the amount of \$10,000.00 as partial payment of the fee required by NDCC Chapter 49-05-04.2(2)(d). Otter Tail will submit additional funds as ordered by the Public

¹ The substation located near Big Stone City will be owned by Otter Tail and is part of the Big Stone South – Brookings MVP.

Mr. Nitschke
May 31, 2013
Page 2

Service Commission up to the \$125,000.00 amount required by NDCC Chapter 49-03-02.3. Otter Tail also respectfully requests that this filing be accepted as being in full compliance with the filing requirements of this Commission.

An electronic copy of this Application is being sent to you at dnitschk@nd.gov and to NDPSC@nd.gov. The original and seven copies will be sent to you by First Class mail.

Please refer all inquiries regarding this filing to:

Peter J. Beithon
Manager, Regulatory Recovery
Otter Tail Power Company
215 South Cascade Street, Box 496
Fergus Falls, MN 56538-0496

Also, please send copies of all written inquiries, correspondence and pleadings to:

Jennifer Smestad
General Counsel
Otter Tail Power Company
215 South Cascade Street, Box 496
Fergus Falls, MN 56538-0496

If you have any questions, do not hesitate to contact me at (218) 739-8607 or pbeithon@otpc.com.

Sincerely,

/s/ PETER J. BEITHON
Peter J. Beithon
Manager, Regulatory Recovery

dm
Enclosures
By electronic service and First Class mail
cc: Jennifer Smestad

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

In the Matter of the Application of OTTER)
TAIL POWER COMPANY for a Certificate)
of Public Convenience and Necessity for a)
345 kV Transmission Line from Ellendale,) Case No. PU-13-____
North Dakota to the North Dakota/South)
Dakota Border)

**APPLICATION OF OTTER TAIL POWER COMPANY FOR A CERTIFICATE
OF PUBLIC CONVENIENCE AND NECESSITY**

I. INTRODUCTION

Otter Tail Power Company (Otter Tail or Applicant), herewith makes this Application pursuant to Chapter 49-03, NDCC, for a Certificate of Public Convenience and Necessity to construct and operate approximately 10 miles of 345 kV electric transmission line located in North Dakota (the North Dakota Facilities). The North Dakota Facilities proposed in this Application are a portion of the 160-170 miles of 345 kV transmission line traversing from Big Stone City, South Dakota to Ellendale, North Dakota (Big Stone South to Ellendale MVP or the Project). The Big Stone South to Ellendale MVP is part of the Midcontinent Independent System Operator, Inc.'s (MISO) Multi Value Project (MVP) Portfolio, which was supported by Otter Tail, and ultimately approved by the MISO Board of Directors on December 8, 2011. The Project is one of seventeen MVPs approved by MISO in Appendix A of the 2011 MISO Transmission Expansion Plan (MTEP11 Report). The Big Stone South to Ellendale MVP, in combination with the other approved Multi Value Projects, will reduce the wholesale cost of energy delivery for the consumer by enabling the delivery of low cost generation to load, reducing congestion costs, and increasing system reliability. Otter Tail and Montana-Dakota Utilities Co. (Montana-Dakota) intend to jointly construct and own the Big Stone South to Ellendale MVP. Montana-Dakota intends to own the substation at Ellendale and approximately

fifty percent of the transmission line, with Otter Tail owning the remaining share of the transmission line.

The remainder of this Application will provide additional support for Otter Tail's request for a Certificate of Public Convenience and Necessity to construct and operate the North Dakota Facilities. The Application will address:

- Description of Applicant
- Standard of Review
- MISO's Multi Value Project Portfolio
- Description of the Project
- Project Need
- Affidavit of Jason J. Weiers

II. GENERAL FILING INFORMATION

Pursuant to § 69-02-02-04 of the Commission's Rules of Practice and Procedure, the following information is provided:

A. Name, address, and telephone number of the utility making the filing.

Otter Tail Power Company
215 South Cascade Street
P.O. Box 496
Fergus Falls, MN 56538-0496
Phone (218) 739-8200

B. Name, address, and telephone number of the attorney for Otter Tail Power Company.

Jennifer Smestad
General Counsel
Otter Tail Power Company
215 South Cascade Street
P.O. Box 496
Fergus Falls, MN 56538-0496
Phone (218) 739-8892

C. Title of utility employee responsible for filing.

Peter J. Beithon
Manager, Regulatory Recovery
Otter Tail Power Company
215 South Cascade Street
P.O. Box 496
Fergus Falls, MN 56538-0496
(218) 739-8607

D. The date of filing and the date changes will take effect.

The date of this filing is May 31, 2013.

E. Other requirements of North Dakota Rules Part 69-02-02-04.

A certified copy of Otter Tail's Articles of Incorporation is on file with the Commission, as is an original certificate of good standing.

F. Standard of Review

This Application is being made pursuant to the provisions of Chapter 49-03 of the North Dakota Century Code, and the rules and regulations promulgated by the Public Service Commission of the State of North Dakota. Under this statute, the overall standard applied by the Commission is whether public convenience and necessity will be served by the Applicant's construction and operation of the North Dakota Facilities and whether the Applicant is fit, willing and able to provide service.

Applicant provides that the Big Stone South to Ellendale MVP is a 345 kV transmission line, developed collaboratively as a MISO Multi Value Project that will not provide direct retail service and will not interfere with the service provided by any utilities in the area. The Big Stone South to Ellendale line provides bulk transmission capacity that can be used by many utilities and, ultimately, their retail customers.

The Big Stone South to Ellendale MVP is required to be built as part of the MISO Transmission Expansion Plan (MTEP) and that Otter Tail is fit, willing and able to construct and operate its portion of the Project.

III. MISO'S MULTI VALUE PROJECT PORTFOLIO

On July 15, 2010, MISO and the MISO transmission owners adopted revisions to the MISO Tariff to establish the MVP category of transmission projects and corresponding cost allocation provisions.¹ MVPs are transmission facilities that MISO identifies to “enable the reliable and economic delivery of energy in support of documented energy policy mandates” or laws that “address, through the development of a robust transmission system, multiple reliability and/or economic issues affecting multiple transmission zones.”² To qualify as an MVP, a transmission facility must meet one or more of the following criteria:

Criterion 1 - The project must be developed through the transmission expansion planning process for the purpose of enabling the transmission system to deliver energy reliably and economically to support documented energy policy mandates or laws that directly or indirectly govern the minimum or maximum amount of energy that can be generated by specific types of

¹ See Midwest Independent Transmission System Operator, Inc. and the Midwest ISO Transmission Owners, Docket No. ER10-1791-000, at 1 (July 15, 2010) (MVP Filing). The MVP Filing was conditionally accepted by the FERC on December 16, 2010. *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).

² See MVP Filing at 2; see also *id.* at 20 (“[T]he MVP planning and cost allocation category is designed, among other purposes, to facilitate the interconnection of location-constrained resources (including renewable generation) in the MISO footprint and to satisfy other existing and potential future public policy requirements by removing cost barriers currently impeding such development.”).

generation in a manner that is more reliable and/or more economic than it otherwise would be without the transmission upgrade; and/or

Criterion 2 - The project must provide multiple types of economic value across multiple pricing zones with a total project benefit-to-cost ratio of 1.0 or higher, as defined in Section II.C.7 of Attachment FF of the MISO Open Access Transmission, Energy and Operating Reserve Markets Tariff (Tariff). In conducting the benefit-to-cost analysis, the reduction of production costs and the associated reduction of Locational Marginal Prices (LMP) resulting from a transmission congestion relief project are not additive and are considered a single type of economic value; and/or

Criterion 3 - The project must address at least one Transmission Issue associated with a projected violation of a North American Electric Reliability Corporation (NERC) or Regional Entity standard and at least one economic-based Transmission Issue that provides economic value across multiple pricing zones. Under this criterion, the project must generate total financially quantifiable benefits in excess of the total project costs based on financial benefits and project costs, as defined in Section II.C.7 of Attachment FF of the MISO Tariff.³

In the MVP Order, the Federal Energy Regulatory Commission (FERC) directed MISO to modify the MISO Tariff to state that MISO will consider potential MVPs on a portfolio basis.⁴ In their compliance filing, MISO and the MISO transmission owners revised Attachment FF of the MISO Tariff, which governs the MTEP process, to indicate that “[a] Multi Value Project

³ See MVP Filing at 21 and Tab E.

⁴ MVP Order at P 223.

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.”⁵

In the MVP Rehearing Order, the Commission indicated that these revisions “accomplish precisely what the FERC intended – to clearly articulate what a portfolio is and that the aggregation of MVPs into a portfolio will occur in MISO’s MTEP process in a manner that benefits will accrue throughout the entire MISO region.”⁶ As a result, the MTEP process is designed to evaluate potential MVPs and identify a portfolio of MVPs that provide reliability, economic, and public policy benefits across the MISO region.

IV. DESCRIPTION OF THE PROJECT

The Big Stone South to Ellendale MVP is part of the MISO MVP Portfolio (MTEP11 MVP Portfolio) approved by the MISO Board of Directors on December 8, 2011, as an MVP in Appendix A of the 2011 MISO Transmission Expansion Plan .⁷ The Big Stone South to Ellendale MVP will consist of between 160 and 170 miles of single circuit 345 kV transmission line from a connection near Ellendale, North Dakota and ending near Big Stone City, South Dakota. The Project will be sited in both North Dakota and South Dakota, which will require

⁵ Midwest Independent Transmission System Operator, Inc. and the Midwest ISO Transmission Owners, Docket No. ER10-1791-002, at 3 (Feb. 14, 2011) (MVP Compliance Filing). Portfolio is defined as follows: “For Multi-Value Project purposes, means two or more Multi-Value Projects proposed to be located in one or more Transmission Pricing Zones that, when evaluated together, have the affect of addressing one or more Transmission issues.” MISO Tariff at Module A § 1.513a.

⁶ MVP Rehearing Order at P 367.

⁷ See MISO Transmission Expansion Plan 2011 (MTEP11 Report), MTEP11 Report and related material are posted on the MISO website at: <https://www.midwestiso.org/Planning/TransmissionExpansionPlanning/Pages/MTEP11.aspx>.

coordination for siting and construction. The estimated total cost for the Otter Tail portion of the North Dakota Facilities is approximately \$8.5 to \$11 million, in 2019 dollars, and is expected to be in service by the end of 2019. The revenue requirement associated with the Project will be recovered through the MISO tariff and assigned to all electric loads within MISO. Otter Tail's retail North Dakota share represents approximately 0.32% of the total revenue requirement.

V. PROJECT NEED

The Big Stone South to Ellendale MVP has been identified in multiple studies dating back to 2005. These studies focused on:

- 1) increasing the power delivery capability of the transmission system from the Dakotas to enhance the market and meet regional reliability needs ⁸(the Northwest Exploratory Study);
- 2) identifying a long-term transmission plan under different generation scenarios (the CapX2020 Vision Study);
- 3) identifying transmission portfolios that would enable Renewable Portfolio Standards (RPS) mandates to be met at the lowest delivered wholesale energy cost⁹ (the Regional Generation Outlet Study or RGOS); and,
- 4) identifying a regional transmission portfolio that enables the MISO Load Serving Entities to achieve their (RPS)¹⁰ that meet the criteria for MISO's MVP projects (Candidate Multi-Value Project Portfolio Analysis or CMVP Study).

⁸ Page 136 of MTEP05 report (Section 7.2)

⁹ Page 44 of MTEP11 Report

¹⁰ Page 48 of MTEP11 Report

The Northwest Exploratory Study, highlighted in the MTEP05 report, evaluated the incremental delivery capability from potential generation development regions in North Dakota and Southeast South Dakota that might be achieved with various transmission development scenarios.¹¹ The next major study was the CapX2020 Vision Study. This study included a broader study scope, with its primary purpose being serving the load in the CapX2020 footprint, which included all of Minnesota and parts of North Dakota, South Dakota, Wisconsin and Iowa. The RGOS was intended to identify a set of value based transmission portfolios necessary to enable Load Serving Entities (LSEs) to meet their RPS mandates at the lowest delivered wholesale energy cost¹² across the MISO footprint. Each of these studies provides the support for MISO's CMVP Study. In the CMVP Study, MISO conducted detailed analysis of a portfolio of "no regrets" projects, which will reduce the wholesale cost of energy delivery for the consumer by enabling the delivery of low cost generation to load, reducing congestion costs and increasing system reliability.¹³ Each of these studies identified the need for the Big Stone South to Ellendale MVP.

Furthermore, MISO's CMVP Study supports the inclusion of the Big Stone South to Ellendale MVP in the MTEP11 MVP Portfolio. Specifically, the study states:

The new 345 kV outlet from Ellendale removes overloads on the 230 kV path from Ellendale to Oakes to Forman and the 115 kV path from Ellendale to

¹¹ Page 136 of MTEP05 report (Section 7.2)

¹² Page 44 of the MTEP11 report

¹³ Page 46 of MTEP11 report

*Aberdeen. Overloads on the 230/115 kV transformers at Ellendale, Forman and Heskett are also alleviated. [. . .]*¹⁴

The study further describes the alternative projects that were considered and rejected in favor of the Big Stone South to Ellendale MVP.¹⁵ All of the projects in the 2011 MVP Portfolio, including the Big Stone South to Ellendale MVP, are included because of the reliability, public policy, and economic benefits they provide.¹⁶ The results of the MISO MTEP studies indicate that the projects identified as the 2011 MVP Portfolio increase reliability in the MISO footprint, open the market to increased competition, and provide access to low cost generation regardless of fuel type.¹⁷

While studied on a portfolio basis by MISO with the other MVPs, the Big Stone South to Ellendale MVP plainly stands out as a key link in the regional package of major transmission projects, as shown by the following map of all of the MVPs¹⁸ and is essential to realization of the benefits to be delivered by that Portfolio. The Big Stone South to Ellendale MVP is identified as Project 6 on the map.

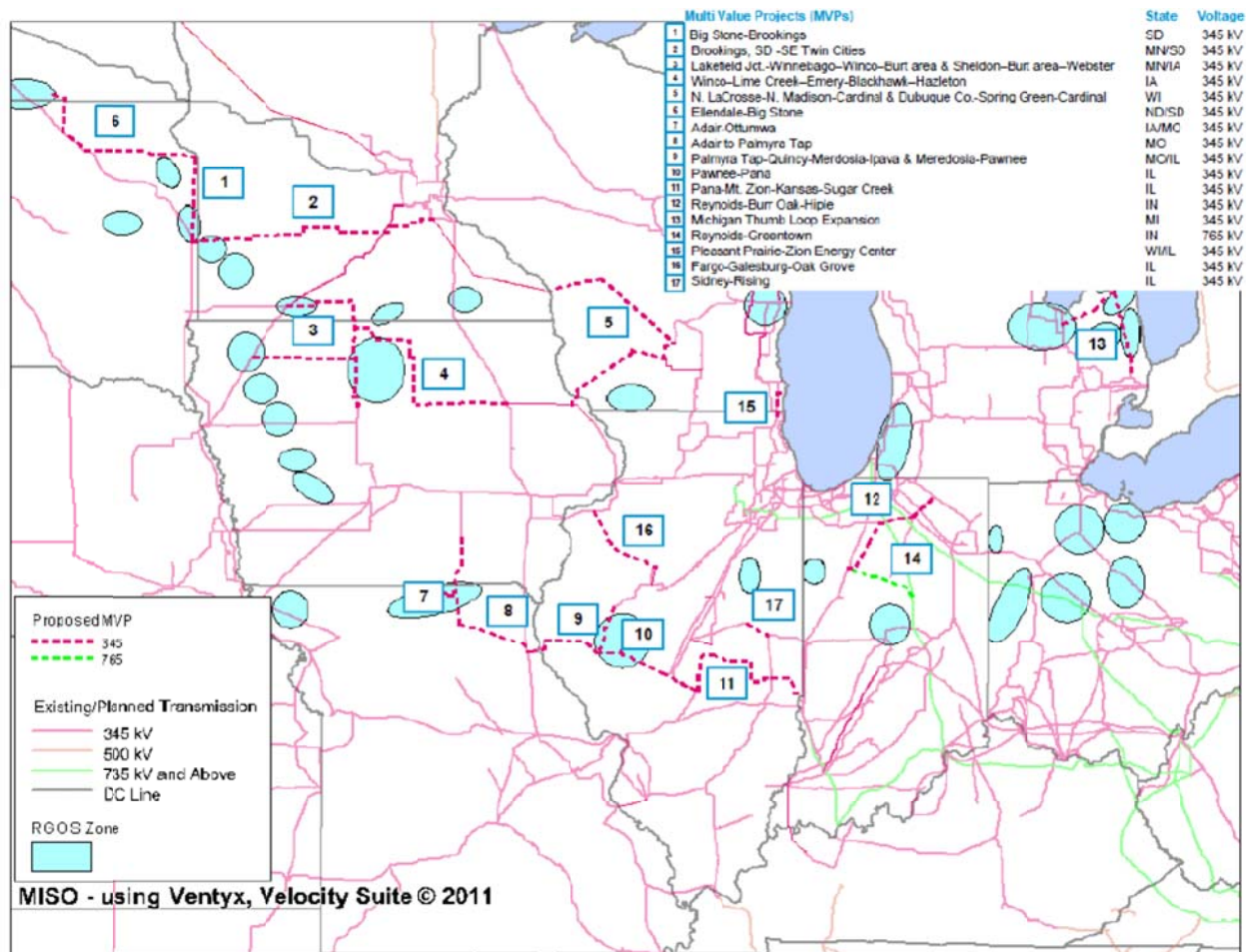
¹⁴See Multi Value Project Portfolio Results and Analyses (January 10, 2012) <https://www.misoenergy.org/Library/Repository/Study/Candidate%20MVP%20Analysis/MVP%20Portfolio%20Analysis%20Full%20Report.pdf>

¹⁵ *See id.* at 30.

¹⁶ Page 42 of the MTEP11 report (Section 4.1)

¹⁷ Page 51 of MTEP11 report

¹⁸ The Big Stone South to Ellendale MVP, appearing at the northwestern corner of the MVP map, is designated as project number 6.



Without the Big Stone South to Ellendale MVP, the Portfolio could not achieve its objective of strengthening the MISO regional grid’s ability to move power from areas of high wind power potential in western MISO to points east. This was recognized by MISO in the MVP Report, which states:

“...this project (Big Stone South – Ellendale) reliably moves mandated renewable energy from the Dakotas to major 345 kV transmission hubs and load centers.¹⁹”

¹⁹ MVP Report – Page 30, section 5.7.

The MTEP11 Report documented several reliability benefits to the bulk electric transmission system from the MVP Portfolio. Specifically, the MVP Portfolio will maintain system reliability by resolving reliability violations on approximately 650 elements for more than 6,700 system conditions and mitigating 31 system instability conditions.²⁰

This Project will also increase the ability to export more power out of the Dakotas. Historically, the Dakotas have had more generation than load. Generation resource development has historically been limited by the lack of transmission capability. The Big Stone South to Ellendale MVP, in conjunction with the portfolio of other MISO MVPs, will increase the ability to transport power out of the generation-rich Dakotas further east.

The Big Stone South to Ellendale MVP, in conjunction with other MISO MVPs, creates other benefits to the MISO region, including North Dakota as follows:

1. Reduced transmission line losses.²¹
2. Reduced planning reserves.²²
3. Reduced operating reserves.²³

²⁰ Page 42 of the MTEP11 report (Section 4.1)

²¹ MTEP2011 at 67 (“The addition of the proposed MVP Portfolio to the transmission network reduces overall system losses, reducing the generation needed to serve the combined load and transmission line losses.”).

²² MTEP2011 at 67 (“The system planning reserve is calculated by determining the amount of generation required to meet a one day in 10 year Loss of Load Expectation (LOLE). It has two components: the unconstrained system Planning Reserve Margin (PRM), and the congestion contribution. The proposed MVP Portfolio reduces transmission congestion across MISO, thereby reducing the system PRM and decreasing the amount of generation needed to maintain the PRM.”).

²³ MTEP2011 at 66 (“The MVPs decrease congestion on the system, increasing the transfer capability into several key areas that would otherwise have to hold additional operating reserves under certain system conditions.”).

4. Reduced wind generation investment.²⁴

5. Reduced transmission investment²⁵

Full details of these benefits are documented in the MISO MTEP11 Report.²⁶

[Remainder of page intentionally left blank]

²⁴ MTEP2011 at 68 (“In the RGOS study, it was determined that 11 percent less wind would need to be built to meet renewable energy mandates in a combination local/regional methodology relative to a local only approach. Approximately 2.9 GW less generation capacity is required for the combination siting approach, creating present value benefits of \$1.4 billion to \$2.5 billion.”).

²⁵ MTEP2011 at 68 (“In addition to relieving constraints under shoulder peak conditions, the proposed MVP Portfolio will eliminate some future baseline reliability upgrades. A model simulating 2031 summer peak load conditions was created to determine what future baseline reliability upgrades would not be needed, and this model was run both with and without the proposed MVP Portfolio. The proposed MVP Portfolio eliminates the need for baseline reliability upgrades on 23 lines between 2026 and 2031. This creates benefits which have 20 and 40 year present values of \$268 and \$1,058 million, respectively.”)

²⁶ MTEP2011 at 42-75.

VI. CONCLUSION

Public convenience and necessity will be served by Otter Tail and Montana-Dakota's ownership, construction, and operation of the North Dakota Facilities associated with the Big Stone South to Ellendale MVP. Otter Tail is fit, willing and able to own and operate its share of the proposed facilities. Therefore, Otter Tail requests that the Commission:

1. Give Notice of Opportunity to request a hearing to interested parties and, if no hearing is requested within twenty days, to waive the hearing in accordance with §49-03.1-05, NDCC;
2. Enter an Order and issue a Certificate of Public Convenience and Necessity authorizing the Applicant to construct its approximately fifty percent share of the transmission line within the state of North Dakota.
3. Grant such other relief as the Commission shall deem appropriate.

Dated this 31st day of May, 2013.

OTTER TAIL POWER COMPANY

/s/ PETER J. BEITHON

Peter J. Beithon
Manager, Regulatory Recovery
215 South Cascade Street
P.O. Box 496
Fergus Falls, MN 56538-0496
Phone (218) 739-8607

Jennifer Smestad
General Counsel
Otter Tail Power Company
215 South Cascade Street
P.O. Box 496
Fergus Falls, MN 56538-0496
Phone (218) 739-8892

5. That it is in the public interest that Applicant be granted a Certificate of Public Convenience and Necessity as requested in the Application.

Dated this 31st day of May 2013.

/S/ JASON J. WEIERS

Jason J. Weiers
Manager of Delivery Planning

Subscribed and sworn to before me this 31st day of May 2013.

/S/ DIANE MERZ

Diane Merz, Notary Public
My Commission Expires: January 31, 2015

(S E A L)

Of Counsel:

Jennifer O. Smestad
General Counsel
Otter Tail Power Company
215 South Cascade Street
P.O. Box 496
Fergus Falls, MN 56538-0496