

June 25, 2010

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PUBLIC SERVICE COMMISSION

Darrell Nitschke
Executive Secretary
North Dakota Public Service Commission
State Capitol Building
600 E. Boulevard Ave., Dept. 408
Bismarck, ND 58505

RE: Minnesota Power's Ten Year Plan – July 2010

Dear Mr. Nitschke:

Enclosed are ten paper copies of Minnesota Power's North Dakota Ten-Year Plan pursuant to N.D.C.C. § 49-22-04. Notice of the filing of this plan will be given pursuant to N.D. Admin. Code 69-06-02-02 to the state agencies and officers as designated in N.D. Admin. Code 69-06-01-05. A copy of Minnesota Power's Ten Year Plan will also be filed with the Morton and Oliver county auditors.

If you have any questions, or need additional information, please contact me at the number listed below.

Sincerely,



David R. Moeller

kl
Enc.
c: Oliver County Auditor
Morton County Auditor

1 **PU-10-326** Filed: 6/28/2010 Pages: 8
Ten year plan

Minnesota Power & Light

David R. Moeller

June 25, 2010

NOTICE OF FILING

Please take notice that on June 25, 2010, Minnesota Power, 30 West Superior Street, Duluth, Minnesota, filed a Ten Year Plan with the North Dakota Public Service Commission pursuant to N.D.C.C. § 49-22-04. Notice of the filing of this plan is pursuant to N.D. Admin. Code 69-06-02-02 to the following state agencies and officers as designated in N.D. Admin. Code 69-06-01-05:

1. Aeronautics Commission
2. Attorney General
3. Department of Agriculture
4. Department of Career and Technical Education
5. Department of Commerce, Division of Community Service
6. Department of Health
7. Department of Human Services
8. Department of Labor
9. Department of Transportation
10. Economic Development & Finance Commission
11. Energy Development Impact Office
12. Game and Fish Department
13. Geological Survey
14. Governor
15. Indian Affairs Commission
16. Job Service North Dakota
17. Parks and Recreation Department
18. Soil Conservation Committee
19. State Historical Society of North Dakota
20. State Land Department
21. State Water Commission

Sincerely,



David R. Moeller

TEN-YEAR PLAN

**Minnesota Power
An operating division of ALLETE, Inc.
Duluth, Minnesota**

Prepared for the North Dakota Public Service Commission
Pursuant to Section 49-22-04 of the
North Dakota Century Code

July 2010

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Minnesota Power's
TEN-YEAR PLAN

INTRODUCTION

Minnesota Power, an operating division of ALLETE, Inc., provides retail electric service to northeastern Minnesota and wholesale service to 16 municipal customers in Minnesota and two private utilities in Wisconsin. Minnesota Power has historically maintained an energy resource portfolio of coal, hydro, and biomass. In an effort to meet Minnesota's Renewable Energy Standard (Minn. Stat. § 216B.1691) and diversify its energy resource portfolio, Minnesota Power has been implementing a renewable development plan that began with 98.6-MW of purchased wind energy from the Oliver I and II Wind Energy Centers in Oliver County, North Dakota. Minnesota Power also currently purchases 227,500 kW from Square Butte Electric Cooperative's Milton R. Young Unit 2 plant that is delivered via Minnesota Power's +/- 250kV direct current transmission line ("DC Line") that runs between the Square Butte Substation in Center, North Dakota and Minnesota Power's Arrowhead Substation near Duluth, Minnesota.

**Minnesota Power's
Ten-Year Plan**

SECTION A: Existing Energy Conversion Facilities

Hydro Operations—114.6 MW

- St. Louis River System—85.6 MW
 - Knife Falls Hydro Electric Station—1.9 MW
 - Scanlon Hydro Electric Station—1.4 MW
 - Thomson Hydro Electric Station—71.3 MW
 - Fond du Lac Hydro Electric Station—11.0 MW
- Winton Hydro Electric Station—4.0 MW
- Prairie River Hydro Electric Station—0.5 MW
- Mississippi River System—24.5 MW
 - Little Falls Hydro Electric Station—4.4 MW
 - Blanchard Hydro Electric Station—16.5 MW
 - Sylvan Hydro Electric Station—1.9 MW
 - Pillager Hydro Electric Station—1.7 MW

Hibbard Energy Center—54.2 MW (summer), 47.2 MW (winter)

Boswell Energy Center Units 1 and 2—138 MW

Boswell Energy Center Unit 3—350.5 MW

Boswell Energy Center Unit 4—535 MW (428.8 MW Minnesota Power capacity)

Laskin Energy Center Units 1 and 2—110 MW

Cloquet Energy Center—22.1 MW

Taconite Ridge Wind Energy Center—25 MW

(Non-regulated) Rapids Energy Center—30.8 MW

Purchases

- Square Butte—Young 2—227.5 MW in 2010
- Oliver County Wind Energy Centers I and II—98.6 MW
- Wing River Wind—2.5 MW

Minnesota Power's 2010 Integrated Resource Plan in MPUC Docket No. E015/ RP-09-1088 (available on the MPUC's eDockets website: <https://www.edockets.state.mn.us/EFiling/search.jsp>) provides further information on these generation facilities and is available upon request.

SECTION B: Energy Conversion Facilities Under Construction

Upon receipt of the Certificate of Site Compatibility from the North Dakota Public Service Commission (PU-09-151), Minnesota Power began construction in fall 2009 of its Bison I Wind Project in Morton and Oliver counties. The Bison I Wind Project will be 76 MW in size, consisting of 33 2.3-MW wind turbine generators.

SECTION C: Proposed Energy Conversion Facilities on Which Construction is Intended Within The Ensuing Five Years

Minnesota Power intends to construct at least 375 MW of wind projects in North Dakota. The initial Bison I Wind Project will be placed in-service in two phases beginning in 2010. The remaining 300MW would be installed at future dates, depending on a number of different factors, including when Minnkota Cooperative completes its new 345kV AC transmission outlet. Minnesota Power will make individual applications to the North Dakota Public Service for approval of these additional North Dakota wind facilities.

SECTION D: Proposed Energy Conversion Facilities During the Next Ten-Year Time Period

See response to Section C.

SECTION E: Existing Transmission Facilities (Electric)

On December 31, 2009, Minnesota Power acquired Square Butte Electric Cooperative's +/- 250kV direct current transmission line ("DC Line") that runs 465 miles between the Square Butte Substation in Center, North Dakota and Minnesota Power's Arrowhead Substation near Duluth, Minnesota.

SECTION F: Existing Transmission Facilities (Pipeline)

None

SECTION G: Proposed Transmission Facilities on Which Construction is Intended Within the Ensuing Five Years

Upon receipt of the Certificate of Corridor Compatibility and Route Permit from the North Dakota Public Service Commission (PU-09-587), Minnesota Power began construction of a new 230kV AC transmission line, approximately 22 miles in length that is required to transmit wind generation from the Bison I Wind Project substation to the proposed point of interconnection within the existing Square Butte Substation near Center, North Dakota. To facilitate development of additional wind projects in North Dakota, Minnesota Power may construct additional transmission facilities that would interconnect with this new 230kV AC transmission line and eventually to the Square Butte Substation.

Minnesota Power is also planning to upgrade the capacity of the DC Line to assure deliverability of the Bison I Wind Project. To accomplish this upgrade, Minnesota Power has entered into a transmission service agreement with Square Butte (subject to installation of a \$5.6 million transmission system improvement project at the Square Butte substation) to increase the DC Line capacity from 500MW to 550MW by 2013.

Minnesota Power is a project participant in the CapX2020 transmission initiative, which includes the Twin Cities – Fargo 345 kV Project that would begin near Fargo, North Dakota and terminate at Monticello, Minnesota.

SECTION H: Proposed Transmission Facilities on Which Construction is Intended Within the Ensuing Five Years (Pipeline)

None

SECTION I: Proposed Transmission Facilities During the Next Ten-Year Time Period (Electric and Pipeline)

Minnesota Power may need to construct additional transmission facilities to deliver wind from project sites to the Square Butte Substation.

SECTION J: Regional coordination

Minnesota Power's 2010 Integrated Resource Plan in MPUC Docket No. E015/RP-09-1088 (available on the MPUC's eDockets website: <https://www.edockets.state.mn.us/EFiling/search.jsp>) contained extensive transmission and regional coordination information in Appendix F and is available upon request.

SECTION K: Environmental information

Minnesota Power's 2010 Integrated Resource Plan in MPUC Docket No. E015/RP-09-1088 (available on the MPUC's eDockets website: <https://www.edockets.state.mn.us/EFiling/search.jsp>) contained extensive environmental information in Appendix E and is available upon request.

SECTION L: Projected demand for service

Minnesota Power's 2010 Integrated Resource Plan in MPUC Docket No. E015/RP-09-1088 (available on the MPUC's eDockets website: <https://www.edockets.state.mn.us/EFiling/search.jsp>) contained extensive demand and energy forecasting information and is available upon request. Minnesota Power also files annually with the MPUC an Annual Forecast Report in accordance with MPUC rules and that can be made available upon request.