

July 1, 2010

**HAND-DELIVERED**

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JUL 01 2010

Mr. Darrell Nitschke  
Executive Secretary  
North Dakota Public Service Commission  
600 E. Boulevard, Dept. 408  
Bismarck, ND 58505-0480

**PUBLIC SERVICE COMMISSION**

**RE: M-Power, LLC's Ten Year Plan**  
**Case No. \_\_\_\_\_**

Dear Mr. Nitschke:

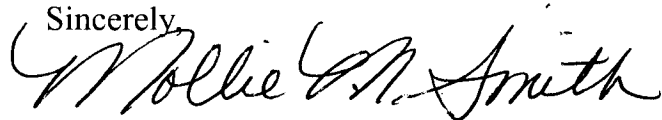
Please find enclosed herewith for filing an original and ten copies of the following:

1. M-Power, LLC's Ten Year Plan: 2010-2020; and
2. M-Power, LLC's Notice of Filing Ten Year Plan: 2010-2020.

A disk containing a copy of each of the above-referenced documents in PDF format is also enclosed.

Should you have any questions, please advise.

Sincerely,



MOLLIE M. SMITH

MS/ms

Enclosures

cc: Warren Enyart – (w/enc. – *via e-mail*)

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**1** **PU-10-367** Filed: 7/1/2010  
**2010 Ten Year Plan**

Pages: 9

STATE OF NORTH DAKOTA  
PUBLIC SERVICE COMMISSION

Case No. \_\_\_\_\_


IN THE MATTER OF THE FILING OF A TEN  
YEAR PLAN BY M-POWER, LLC

**NOTICE OF FILING TEN YEAR PLAN  
2010-2020**

**PLEASE TAKE NOTICE** that M-Power, LLC, has, this date, in accordance with Section 49-22-04 of the North Dakota Century Code and Chapter 69-06-02 of the North Dakota Administrative Code, filed with the North Dakota Public Service Commission and the Steele County Auditor, the Griggs County Auditor and the Nelson County Auditor a Ten Year Plan for the years 2010 through 2020, which discusses potential electric generation and transmission projects that may be located in Steele County, Griggs County and/or Nelson County, North Dakota.

Dated this 1st day of July, 2010.

Fredrikson & Byron, P.A.

By 

LAWRENCE BENDER, ND Bar #03908

MOLLIE M. SMITH, ND Bar #06714

*Attorneys for M-Power, LLC*

200 North 3<sup>rd</sup> Street, Suite 150

P. O. Box 1855

Bismarck, ND 58502-1855

(701) 221-4020

**CERTIFICATE OF SERVICE**

I, the undersigned, hereby certify that a true and correct copy of the following document:

**NOTICE OF FILING TEN-YEAR PLAN: 2010-2020**

was on the 1st day of July, 2010 served by placing the same in the United States mail, postage prepaid, properly addressed to the following:

North Dakota Aeronautics Commission  
P.O. Box 5020  
Bismarck, ND 58502-5020

North Dakota Office of Attorney General  
State Capitol  
600 E. Boulevard Ave.  
Dept. 125  
Bismarck, ND 58505

North Dakota Dept. of Agriculture  
600 E. Boulevard Ave.  
Dept. 602  
Bismarck, ND 58505-0020

North Dakota Dept. of Health  
600 E. Boulevard Ave.  
Bismarck, ND 58505-0200

Dept. of Human Services  
600 E. Boulevard Ave.  
Dept. 325  
Bismarck, ND 58505-0250

North Dakota Dept. of Labor  
600 E. Boulevard Ave.  
Dept. 406  
Bismarck, ND 58505-0340

Department of Vocational Education  
c/o Career and Technical Education  
State Capitol, 15th Floor  
600 E. Boulevard Ave.  
Dept. 270  
Bismarck, ND 58505-0610

Economic Development and Finance Commission  
North Dakota Dept. of Commerce  
1600 E. Century Ave., Suite 2  
PO Box 2057  
Bismarck, ND 58503

Energy Development Impact Office  
North Dakota State Land Dept.  
P.O. Box 5523  
Bismarck, ND 58506-5523

North Dakota Game and Fish Department  
100 N. Bismarck Expressway  
Bismarck, ND 58501-5095

North Dakota Geological Survey  
1016 East Calgary Ave.  
Bismarck, ND 58503

Office of Governor John Hoeven  
State of North Dakota  
600 E. Boulevard Ave.  
Bismarck, ND 58505-0001

North Dakota State Highway Department  
608 E. Boulevard Ave.  
Bismarck, ND 58505-0700

State Historical Society  
of North Dakota  
612 E. Boulevard Ave.  
Bismarck, ND 58505-0830

North Dakota Indian Affairs Commission  
600 E. Boulevard Ave.  
1st Floor - Judicial Wing, Rm. 117  
Bismarck, ND 58505-0300

Job Service North Dakota  
P.O. Box 5507  
Bismarck, ND 58506-5507

North Dakota State Land Dept.  
1707 North 9th Street  
P.O. Box 5523  
Bismarck, ND 58506-5523

North Dakota Parks and Recreation Dept.  
1600 E. Century Ave., Suite 3  
Bismarck, ND 58503-0649

Division of Community Services  
Dept. of Commerce  
1600 E. Century Ave., Suite 2  
PO Box 2057  
Bismarck, ND 58503

North Dakota State Soil Conservation Committee  
c/o NDSU Extension Service  
2718 Gateway Ave., Unit #104  
Bismarck, ND 58503

North Dakota State Water Commission  
900 E. Boulevard Ave., Dept. 770  
Bismarck, ND 58505-0850

  
MOLLIE M. SMITH

**TEN YEAR PLAN: 2010-2020**

**M-Power, LLC**

**July 2010**

In accordance with Section 49-22-04 of the North Dakota Century Code and Chapter 69-06-02 of the North Dakota Administrative Code, M-Power, LLC (M-Power), submits the following Ten Year Plan for years 2010 through 2020.

- (1) A description of the general location, size, and type of all facilities to be owned or operated by the utility during the ensuing ten years, as well as those facilities to be removed from service during the ten-year period.

M-Power is a renewable energy development company, formally organized on September 22, 2006. M-Power's initial development project was a 169.5 megawatt (MW) wind farm, originally known as the Luverne Wind Farm, located in Griggs and Steele Counties, North Dakota. In order to interconnect the Luverne Wind Farm to the transmission grid, M-Power also developed a 13-mile-long 230 kilovolt (kV) transmission line. The project, which included the transmission line, was bifurcated and sold as a "construction-ready" project to Otter Tail Power Company and Ashtabula Wind II, a subsidiary of NextEra Energy. Those two independently-owned components of the Luverne Wind Farm were fully operational by October 15, 2009.

It is a widely-known fact that the "Pembina Ridge," which generally runs north-south through eastern North Dakota, holds high potential for wind generation. M-Power has been conducting wind monitoring along the "Pembina Ridge" and the wind monitoring data acquired indicates that there are several areas within Griggs, Steele, and Nelson Counties that have relatively high developable wind resources. Provided M-Power's studies indicate that development of one or more renewable energy projects would be economically feasible and electrically viable, M-Power plans to pursue the development of 500 MW or more of wind generation within Steele, Griggs, and Nelson Counties, pending alleviation of existing transmission constraints, and of course, market opportunity.

In the near-term, M-Power is considering the development of an additional 50-100 MW adjacent to and north of the existing Luverne Wind Farm. Under current circumstances, this area offers the best opportunity to export the energy produced to the potential markets. M-Power has also identified two other potential wind farm sites in the area, one located in the southern part of Nelson County and the other located northwest of Binford, North Dakota, in Griggs County. While these sites may have greater wind resources than the Luverne extension site, exporting energy from these areas is currently restricted due to limited transmission capacity in the area. Although regional utilities are planning additional transmission capacity that might be accessible to M-Power, M-Power will likely need to construct short generation-outlet transmission lines in order to interconnect to the transmission grid. The necessity for and location of such transmission lines will be determined at a future date, depending on what planned transmission projects materialize and/or become accessible to M-Power.

Although M-Power is a locally-owned and locally-governed entity, its development interests may extend beyond the three counties in which wind resource research has been conducted. Other projects with potential for development may be pursued within the next ten years if landowners in other areas express an interest in the M-Power business model. In addition to the development of commercial-scale wind farms to produce electricity for use by utilities, M-Power is also considering the development of other wind energy-related projects, such as using wind energy to convert biomass to fuels, to produce fertilizer and other high-value products, and to purify water in reservoir storage. The location, timing, and type of any project(s) pursued will be, in large part, dictated by the location of developable renewable resources, market demands, transmission solutions, and M-Power's management decisions.

As noted above, M-Power does not currently own or operate any facilities. As such, M-Power does not own or operate any facilities that will be removed from service during the next ten years.

- (2) An identification of the location of the tentative preferred site for all energy conversion facilities and the tentative location of all transmission facilities on which construction is intended to be commenced within the ensuing five years and such other information as may be required by the commission. The site and corridor identification shall be made in compliance with the criteria published by the commission pursuant to section 49-22-05.1.

As noted above, provided M-Power's studies indicate that development of one or more renewable energy projects would be economically feasible and electrically viable, M-Power will likely pursue development of additional projects in Steele, Griggs, and Nelson Counties within the next one to five years. To begin with, M-Power may pursue development of an additional 50-100 MW adjacent to the existing Luverne Wind Farm footprint in Steele County, North Dakota. As noted above, this footprint currently offers the best potential to access the electrical grid via existing transmission facilities. There are two potential points of interconnect from this footprint, both of which would require the construction of only minimal (5-10 miles) of generation-outlet transmission facilities.

The other sites under consideration in southern Nelson County and the Binford area currently do not have economically feasible access to the grid. These targeted footprints are wholly reliant on pending transmission development by other utilities. Therefore, further generation development will be dependent on upgrades and new transmission capacity in the Midwest region in general, and particularly in Minnesota.

As discussed further below, the Buffalo Substation, just northeast of Buffalo, North Dakota, is a potential point of interconnection for projects developed by M-Power, but other interconnection points are being studied. M-Power will develop associated transmission facilities, as necessary, to allow the projects pursued to interconnect to the transmission grid at the Buffalo Substation or elsewhere.

- (3) A description of the efforts by the utility to coordinate the plan with other utilities so as to provide a coordinated regional plan for meeting the utility needs of the region.

Since October 30, 2006, M-Power has had an application (G696) pending before the Midwest Independent Transmission Systems Operator (MISO) for an interconnection of 280 MW of wind generation at the Buffalo Substation, just northeast of Buffalo, North Dakota. The current estimated system upgrade costs to M-Power for interconnecting 280 MW at Buffalo are extremely high. However, the point of interconnection (POI) alternatives for pending wind resource development projects in the region are limited and the Buffalo Substation may still be strategic to access potential wind energy markets. M-Power is currently studying its options using G696, while MISO is re-evaluating its estimated original interconnection costs and also its cost allocation formula for new generators. Besides the Buffalo POI, M-Power is studying other potential wind generation outlets.

M-Power's Interconnection Application was filed per the MISO Business Practice Manual 015 for Generator Interconnection. M-Power's Interconnection Application and MISO's administration of the application are consistent with MISO's Open Access Transmission, Energy and Operating Reserves Market Tariff, as approved by the Federal Energy Regulatory Commission, and per the operating policies of the Electric Reliability Organization designed to facilitate the administration of efficient energy markets.

- (4) A description of the efforts to involve environmental protection and land-use planning agencies in the planning process, as well as other efforts to identify and minimize environmental problems at the earliest possible stage in the planning process.

M-Power has employed a qualified environmental consulting firm to conduct a study of and identify avoidance and exclusion areas within the potential Luverne extension and Nelson County wind farm sites, in accordance with Chapter 49-22 of the North Dakota Century Code and Chapter 69-06-08 of the North Dakota Administrative Code. In addition, the consultant is to identify any areas of concern that would need special attention during siting and/or facility construction. To date, no environmental or siting concerns have been identified that would preclude development within those footprints. Once M-Power's initial environmental studies have been completed, M-Power will contact federal, state and local agencies and governmental units to discuss and seek input regarding any proposed project(s).

- (5) A statement of the projected demand for the service rendered by the utility for the ensuing ten years and the underlying assumptions for the projection, with that information being as geographically specific as possible, and a description of the manner and extent to which the utility will meet the projected demands.

M-Power plans to sell the energy produced by its proposed renewable energy projects to utilities that need additional renewable energy in order to comply with state and/or, if applicable, federal renewable energy standards and objectives.

In North Dakota, the Legislature has established an objective that ten percent of all electricity sold at retail in North Dakota come from renewable and recycled energy sources by

2015.<sup>1</sup> In addition, a regional need exists for renewable energy produced in North Dakota. According to the MISO's Expansion Plan 2009, the eleven states in the MISO region are expected to need 23,000 MW of wind to meet existing renewable standards and objectives, yet have only achieved about 10,000 MW to date.<sup>2</sup> As a further example of the existing need for additional renewable energy, the 2009 Minnesota Resource Assessment Study concluded, even when assuming aggressive demand side management achievements, that Minnesota utilities alone would need to add an additional 4,000 MW of renewables by 2025.<sup>3</sup> Given the geographic proximity of M-Power's proposed projects to the Minnesota market and M-Power's existing MISO interconnect request, energy from M-Power's proposed projects may be utilized to meet the existing renewable energy needs of one or more Minnesota utilities or other utilities in the MISO region.

In addition to the need for renewable energy to meet existing state-specific renewable energy standards and objectives, recently adopted and/or proposed legislation and policies have focused on establishing regional and national renewable energy standards and/or goals. For instance, in 2007, the North Dakota Legislature enacted a statutory provision adopting the "25x'25" initiative, which establishes a goal of having not less than twenty-five percent of the total energy consumed within the United States come from renewable resources by January 1, 2025.<sup>4</sup> The United States Congress is also considering legislation to create a national renewable energy standard, which would further drive the need for wind that can be exported to other regions and areas of the country. Finally, as part of its policy platform, the Midwestern Governors' Association (MGA) recently adopted a policy goal that 30 percent of the region's electricity come from renewable sources by 2030.<sup>5</sup> Based on the MGA's estimates, as much as 90,000 MW of additional wind energy could be needed to implement this policy.<sup>6</sup> Thus, the up to 500 MW of renewable energy that may be produced by M-Power's proposed wind projects will help meet the increasing regional and national need for renewable energy.

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<sup>1</sup> See N.D.C.C. § 49-02-28.

<sup>2</sup> MISO Expansion Plan 2009. Available at [www.midwestiso.org](http://www.midwestiso.org) (accessed April 22, 2010).

<sup>3</sup> Minnesota Office of Energy Security, "Minnesota Resource Assessment Study," (October 2009), p. 3 (available at

[http://www.state.mn.us/mn/externalDocs/Commerce/Minnesota\\_Resource\\_Assessment\\_102109022827\\_MN\\_Resource\\_Assessment.pdf](http://www.state.mn.us/mn/externalDocs/Commerce/Minnesota_Resource_Assessment_102109022827_MN_Resource_Assessment.pdf))

<sup>4</sup> See N.D.C.C. § 17-01-01.

<sup>5</sup> Midwestern Energy and Climate Stewardship Roadmap 2009, p. 23, available at:

<http://www.midwesterngovernors.org/Publications/Roadmap.pdf>

<sup>6</sup> *Id.*