

June 26, 2024

**VIA E-MAIL AND FEDERAL EXPRESS**

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

**RE: M-Power One, LLC's Ten Year Plan for 2024-2034  
Case No. PU-24-\_\_\_\_\_**

Dear Mr. Kahl:

Enclosed for filing are two copies of the following documents:

1. M-Power One, LLC's Ten Year Plan: 2024-2034;
2. Notice of Filing Ten Year Plan: 2024-2034; and
3. Certificates of Service.

Electronic versions of the above-referenced documents and this letter were filed with the Commission today via e-mail.

If you have any questions, please let me know.

Sincerely,



MOLLIE M. SMITH

MMS/82824518  
Enclosures

cc: Rorik Peterson (w/ encls. via e-mail)

**TEN YEAR PLAN: 2024-2034**

**M-Power One, LLC**

**June 2024**

In accordance with N.D.C.C. § 49-22-04 and N.D.A.C. Ch. 69-06-02, M-Power One, LLC (M-Power One), submits the following Ten Year Plan for years 2024 through 2034.

- (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 One is a North Dakota limited liability company and a wholly owned subsidiary of Renew Development HoldCo LLC. M-Power One is developing the Luverne Wind Farm (Project), a proposed wind energy conversion facility in Steele County, North Dakota. The anticipated nameplate capacity of the Project is 300 megawatts (MW); the final nameplate capacity will depend upon market demand, grid interconnection capacity, and the final wind turbine model selection and design.

A generator lead line and new interconnection switch station, up to 345 kilovolts (kV), may need to be constructed in order to interconnect the Project to the existing transmission grid. The necessity for, location of, and design details regarding such infrastructure will be determined at a future date, pending the selection of the final transmission interconnection option and the advancement of grid interconnection studies.

M-Power One does not have any plans to construct, own or operate any generation or transmission facilities other than the Project and any required generator lead line. M-Power One does not currently own or operate any facilities and, therefore, 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*

M-Power One is in the early stages of development of the Project in Steele County, North Dakota. A proposed Point of Interconnection (POI) has yet to be determined for the Project; once the POI is determined, M-Power One may need to develop and construct a generator lead line to the POI in order to interconnect the Project. Interconnection of the Project may also require the construction of a Transmission Owner-owned switching station. The location of these facilities is yet to be determined.

A qualified environmental consulting firm, familiar with the Project area, has assisted M-Power One in evaluating the Project area to ensure compliance with the exclusion and avoidance area criteria referenced in N.D.C.C. § 49-22-05.1 and identified in N.D.A.C. Ch. 69-06-08. A map depicting the study area for the Project is attached as **Exhibit A**.

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

Numerous evaluations to assess the potential market demand for new wind energy generation in the region have been performed. Utilities within North Dakota and neighboring states have issued Integrated Resource Plans and Requests for Proposal indicating a demand for new wind energy electricity generation. Further analysis to determine the most desirable grid interconnection strategy for the Project will occur in the coming months.

- (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.*

As noted above, a qualified environmental consulting firm has assisted M-Power One with identifying avoidance and exclusion areas within the potential Project area, in accordance with N.D.C.C. Ch. 49-22 and N.D.A.C. Ch. 69-06-08. To date, no environmental or siting concerns have been identified that would preclude development within the footprint.

M-Power One has engaged with the United States Fish and Wildlife Service, the Federal Aviation Administration (FAA), the North Dakota Game and Fish Department, and township officials, among others, regarding the proposed Project. M-Power One received Determinations of No Hazard from the FAA on a preliminary turbine array. As further environmental studies are completed, M-Power One will engage in further consultation with federal, state and local agencies and governmental units regarding the proposed Project.

- (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 One plans to sell the energy produced by the Project to one or more utilities that desire additional renewable energy in order to meet the needs of their customers and comply with resource adequacy and capacity obligations. In North Dakota, excellent wind resources create high-capacity factor generation, reducing the cost/megawatt hour (MWh), and increasing the attractiveness of projects in the region. In general, renewable energy sources provide lower

costs/MWh than conventional sources.<sup>1</sup> Thus, the Project could help satisfy local, regional, or even national renewable energy demands.

In 2021, the North Dakota Legislature enacted a statutory provision adopting a low-emission technology initiative, which establishes a goal that the “agricultural, forestry, natural resources, and working land of the United States should provide energy from low-emission technology and continue to produce safe, abundant, and affordable food, fuel, feed, and fiber.”<sup>2</sup> As used in this initiative, low-emission technology includes, among others, wind. Additional renewable resources will be needed to meet the low-emission technology initiative.

Also, in 2010, the North Dakota Department of Commerce, EmPower ND Commission, published the Comprehensive State Energy Policy 2010-2025, which recommended a capacity of wind generation up to 5,000 MW by 2020.<sup>3</sup> The state had a total of 3,989 MW of installed wind capacity at the end of 2020.<sup>4</sup> With improving technology and falling costs, utilities continue to include renewable energy projects in their resource plans as long-term economic energy and capacity resources. In North Dakota, excellent wind resources result in high capacity factor generation, reducing the cost/MWh. In general, alternative energy sources provide lower costs per MW-hour than conventional sources.<sup>5</sup> Wind and solar costs have fallen 41 and 57 percent, respectively, over the last decade, making them the most affordable new electricity sources in most of the U.S.<sup>6</sup> By the end of 2022, 27 states were generating at least 10 percent of electricity from wind, utility-scale solar, and small-scale solar.<sup>7</sup>

A need also exists for renewable energy produced in North Dakota to meet state renewable portfolio standards. Ten of the MISO states currently have either mandated or voluntary renewable

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<sup>1</sup> Lazard, *Lazard’s Levelized Cost of Energy Analysis – Version 16.0* (April 2023), at 2. Accessed online June 4, 2024. Retrieved from <https://www.lazard.com/media/typdggmm/lazards-lcoeplus-april-2023.pdf>.

<sup>2</sup> See N.D.C.C. § 17-01-01.

<sup>3</sup> North Dakota Department of Commerce. Undated. EmPower North Dakota. Comprehensive State Energy Policy 2010-2025. Accessed online June 4, 2024. Retrieved from <https://www.commerce.nd.gov/sites/www/files/documents/ED%26F/Energy/empower%20state%20energy%20report.pdf>.

<sup>4</sup> U.S. Department of Energy. Land-Based Wind Market Report (2021 Edition), at 8. Accessed online June 4, 2024. Retrieved from [https://www.energy.gov/sites/default/files/2021-08/Land-Based%20Wind%20Market%20Report%202021%20Edition\\_Full%20Report\\_FINAL.pdf](https://www.energy.gov/sites/default/files/2021-08/Land-Based%20Wind%20Market%20Report%202021%20Edition_Full%20Report_FINAL.pdf).

<sup>5</sup> Lazard, *Lazard’s Levelized Cost of Energy Analysis – Version 16.0* (April 2023), at 2.

<sup>6</sup> American Clean Power, 2022 American Clean Power Annual Market Report (2022). Accessed online June 4, 2024. Retrieved from [https://cleanpower.org/wp-content/uploads/2023/05/2022-ACP-Annual-Report\\_Public.pdf](https://cleanpower.org/wp-content/uploads/2023/05/2022-ACP-Annual-Report_Public.pdf) (“2022 ACP Market Report”).

<sup>7</sup> 2022 ACP Market Report.

portfolio standards or policies.<sup>8</sup> Under current state standards, aggregate United States renewable portfolio standard demand more than doubles from 400 terawatt hours (TWh) in 2023 to 900 TWh in 2050.<sup>9</sup> Given existing renewable energy capacity, roughly 300 TWh of additional clean electricity supply will be required by 2030 and 800 TWh by 2050.<sup>10</sup> In addition, the regional transmission grid is being expanded to deliver wind generation in a cost-effective manner; specifically, MISO’s Multi-Value Project (MVP) Portfolio is expected to enable 41 million MWh of wind energy per year to meet renewable energy mandates and goals.<sup>11</sup>

Given the geographic proximity of the proposed Project to major load centers in Minnesota and elsewhere, energy from the proposed Project may be utilized to meet the existing renewable energy needs of one or more utilities in the MISO region, as well as other utilities located in adjacent Regional Transmission Organizations/Independent System Operators, such as the Southwest Power Pool.

In addition to traditional utility demand for wind energy, a growing number of corporations are turning to renewable energy to save money on energy and meet sustainability goals. Corporate customers either purchase renewable energy directly or obtain renewable benefits and cost savings through financially settled contracts, sometimes called virtual PPAs. In addition, many utilities are creating “green tariffs,” which allow customers to purchase up to 100 percent renewable energy from the utility.<sup>12</sup>

Beyond the growing demand from utilities, corporations such as Apple, Google and Facebook, along with many others, have recently set goals to obtain 100 percent of their energy from renewables. These clean energy goals fuel the demand for corporate renewables procurement and subsequent PPAs. According to Wood Mackenzie’s report titled an “*Analysis of Commercial and Industrial Wind Energy Demand in the United States*,” the United States is “at the beginning

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<sup>8</sup> U.S. Energy and Information Administration, Renewable energy explained, Portfolio standards (last updated November 30, 2022). Accessed online June 4, 2024. Retrieved from <https://www.eia.gov/energyexplained/renewable-sources/portfolio-standards.php>.

<sup>9</sup> See Lawrence Berkeley National Laboratory, U.S. State Renewables Portfolio & Clean Energy Standards, 2023 Status Update (June 2023), at 23. Accessed online June 4, 2024. Retrieved from [https://eta-publications.lbl.gov/sites/default/files/lbnl\\_rps\\_ces\\_status\\_report\\_2023\\_edition.pdf](https://eta-publications.lbl.gov/sites/default/files/lbnl_rps_ces_status_report_2023_edition.pdf).

<sup>10</sup> See Lawrence Berkeley National Laboratory, U.S. State Renewables Portfolio & Clean Energy Standards, 2023 Status Update (June 2023), at 23.

<sup>11</sup> MTEP18, MISO Transmission Enhancement Plan, at 42. Accessed online June 4, 2024. Retrieved from <https://cdn.misoenergy.org/MTEP18%20Full%20Report264900.pdf>.

<sup>12</sup> U.S. Environmental Protection Agency – Green Power Partnership. Guide to Purchasing Green Power. Chapter 4. Accessed online June 4, 2024. Retrieved from [https://www.epa.gov/sites/default/files/2016-01/documents/purchasing\\_guide\\_for\\_web.pdf](https://www.epa.gov/sites/default/files/2016-01/documents/purchasing_guide_for_web.pdf).

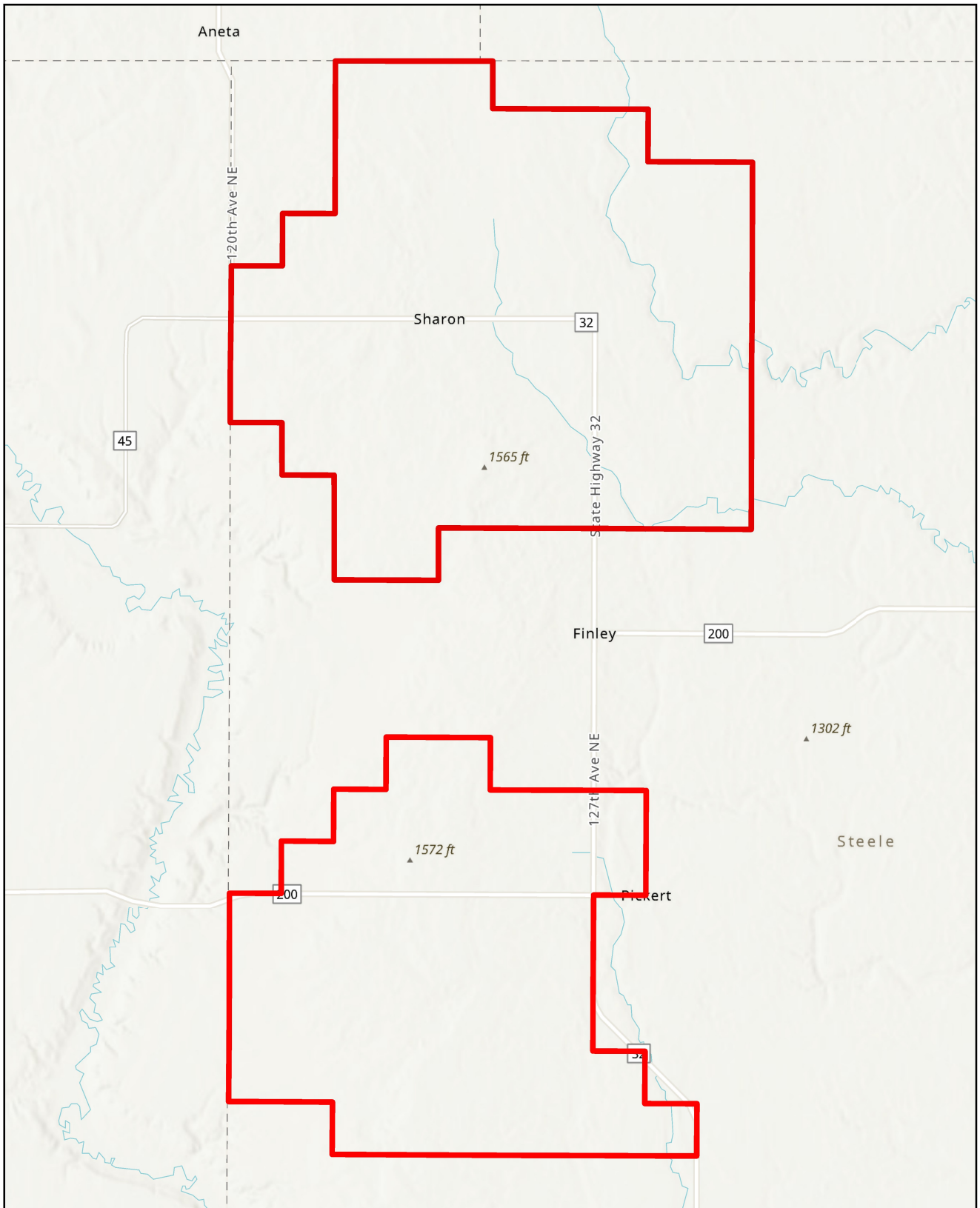
stage of a corporate renewables procurement boom,” with approximately “85 gigawatts of renewable energy demand” from the “largest U.S. companies” alone through 2030.<sup>13</sup>

In summary, the renewable energy produced by M-Power One’s proposed Project will be positioned to help meet local renewable energy initiatives/goals, the regional need for renewable energy, and national C&I customer demand.


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<sup>13</sup> Michelle Froese, *Corporates usher in new wave of US wind and solar growth* (Aug. 27, 2019). Accessed online June 4, 2024. Retrieved from <https://www.windpowerengineering.com/corporations-usher-in-new-wave-of-u-s-wind-and-solar-growth/>.

# EXHIBIT A

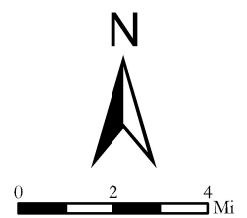


## Luverne Wind Farm

 Proposed Project Area

Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS, Esri, NASA, NGA, USGS, State of North Dakota, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS, Esri, USGS

2024



Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

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

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

Case No. PU-24-\_\_\_

**NOTICE OF FILING TEN YEAR PLAN  
2024-2034**

**PLEASE TAKE NOTICE** that M-Power One, LLC, in accordance with N.D.C.C. § 49-22-04 and N.D.A.C. Ch. 69-06-02, filed a Ten Year Plan for the years 2024 through 2034 with the North Dakota Public Service Commission on June 26, 2024, and the Steele County Auditor on June 26, 2024.

Dated this 26th day of June, 2024.

FREDRIKSON & BYRON, P.A.



By \_\_\_\_\_

MOLLIE M. SMITH, ND Bar #06714  
*Attorney for M-Power One, LLC*  
60 South Sixth Street, Suite 1500  
Minneapolis, MN 55402-4400  
(612) 492-7270

**CERTIFICATE OF SERVICE**

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

**NOTICE OF FILING TEN-YEAR PLAN: 2024-2034**

was served on the 26th day of June, 2024 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  
600 E. Boulevard Ave.  
Dept. 125  
Bismarck, ND 58505-0040

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

North Dakota Department of Health  
600 E. Boulevard Ave.  
Bismarck, ND 58505-0250

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

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

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

North Dakota Department of Commerce  
1600 E. Century Ave., Suite 6  
P.O. Box 2057  
Bismarck, ND 58502-2057

Energy Infrastructure and Impact Office  
North Dakota Department of Trust Lands  
1707 North 9th Street  
Bismarck, ND 58501

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

North Dakota Industrial Commission  
State Capitol, 14th Floor  
600 East Boulevard Ave., Dept. 405  
Bismarck, ND 58505-0840

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

North Dakota Department of Transportation  
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  
State Capitol Building  
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 Department of Trust Lands  
1707 North 9th Street  
Bismarck, ND 58501

North Dakota Parks and Recreation Department  
Liberty Memorial Building  
604 E Boulevard Ave, Dept. 750  
Bismarck, ND 58505

Natural Resources Conservation Service  
North Dakota NRCS State Office  
220 East Rosser Avenue  
Federal Building  
Bismarck, ND 58502-1458

North Dakota Department of Water Resources  
1200 Memorial Highway, Dept. 770  
Bismarck, ND 58504

United States Department of Defense  
1400 Defense Pentagon  
Washington, DC 20301-1400

United States Fish and Wildlife Service  
North Dakota Ecological Services Field Office  
3425 Miriam Avenue  
Bismarck, ND 58501-7926

United States Army Corps of Engineers  
North Dakota Regulatory Office  
3319 University Drive  
Bismarck, ND 58504

Federal Aviation Administration  
United States Department of Transportation  
800 Independence Ave. SW  
Washington, DC 20591

North Dakota Transmission Authority  
c/o North Dakota Industrial Commission  
State Capitol 14th Floor  
600 E. Boulevard Ave. Dept. 405  
Bismarck, ND 58505-0840

North Dakota Pipeline Authority  
c/o North Dakota Industrial Commission  
State Capitol 14th Floor  
600 E. Boulevard Ave. Dept. 405  
Bismarck, ND 58505-0840

North Dakota Department of Environmental Quality  
4201 Normandy Street  
Bismarck, ND 58503-1324

North Dakota Geological Survey  
600 East Boulevard Avenue,  
Bismarck, ND 58505-0840

North Dakota Forest Service  
State Headquarters - Molberg Center  
307 - 1st Street East  
Bottineau, ND 58318-1100

Federal Bureau of Land Management  
Montana/Dakotas State Office  
5001 Southgate Drive  
Billings, MT 59101

Military Aviation and Installation Assurance Siting Clearinghouse  
3400 Defense Pentagon, Room 5C646  
Washington, DC 20301 – 3400

20<sup>th</sup> Airforce 91<sup>st</sup> Missile Wing  
196 Missile Ave.  
Minot AFB, ND 58705-5006

Minot Air Force Base  
196 Missile Ave.  
Minot AFB, ND 58705-5006

Grand Forks Air Force Base  
757 Tuskegee Amn. Blvd.  
Grand Forks Air Force Base, ND, 58205  
Building 418, East Entrance

Steele County Board of Commissioners  
c/o Jana Flaten, County Auditor  
201 Washington Ave W  
(2nd floor)  
PO Box 275  
Finley, ND 58230-0275

A handwritten signature in cursive script that reads "Mollie M. Smith".

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MOLLIE M. SMITH

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

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

**Case No. PU-24-\_\_\_\_\_**

**CERTIFICATE OF SERVICE**

Mollie M. Smith, being first duly sworn, does depose and state that on June 26, 2024, she served the following document:

**Ten Year Plan: 2024-2034**

by placing a true and correct copy of said document in an envelope addressed as follows:

Jana Flaten  
Steele County Auditor  
201 Washington Ave W  
(2nd floor)  
PO Box 275  
Finley, ND 58230-0275

and depositing the same, with postage prepaid, in the United States mail at Minneapolis, Minnesota.



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Mollie M. Smith