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October 23, 2020

Steve Kahl
Executive Secretary
North Dakota Public Service Commission
600 East Boulevard, Dept 408
Bismarck, ND 58505-0480

RE: In the Matter of the Commission requesting Comments regarding the Commission's jurisdiction related to ownership and operation of EV charging stations.
Docket No. PU-20-388
Comments

Dear Mr. Kahl:

Otter Tail Power Company (Otter Tail or the Company) submits these Comments in response to the North Dakota Public Service Commission's (Commission's) request for comments to provide a recommendation regarding the Commission's jurisdiction related to ownership and operation of electric vehicles (EV) charging stations.

Otter Tail submits the following comments in response to the Commission's request. Otter Tail believes the Commission and electric utilities play a significant and necessary role in the advancement of customer access to EV technologies in North Dakota. Otter Tail's comments offer possible guidelines for the Commission to consider if it decides further direction from the Commission is necessary to advance EV adoption in North Dakota.

Please feel free to contact me at 218-739-8639 or jgrenier@otpco.com with any questions.

Sincerely,

/s/ JASON GRENIER
Jason Grenier, Manager
Market Planning

cjh
Enclosures
By electronic filing
C: Service List

9 PU-20-388 Filed 10/23/2020 Pages: 11
Comments
Otter Tail Power Company
Jason Grenier, Manager

OTTER TAIL POWER COMPANY COMMENTS
TO THE NORTH DAKOTA PUBLIC SERVICE COMMISSION

IN THE MATTER OF COMMISSION REQUESTING COMMENTS REGARDING COMMISSION'S JURISDICTION RELATED TO OWNERSHIP AND OPERATION OF EV CHARGING STATIONS.

Docket No. PU-20-388
October 23, 2020

I. BACKGROUND

On August 5, 2020, the North Dakota Public Service Commission (Commission) held a work session with several electric utilities regarding jurisdictional issues surrounding the development of EV charging stations in North Dakota. Otter Tail along with two other North Dakota investor-owned electric utilities supplied presentations and participated in discussion with the Commission on the issue.

On September 9, 2020, the commissioners directed Staff to investigate, solicit comments from interested stakeholders, and provide a recommendation to the Commission regarding areas that may need clarification regarding the commission's jurisdiction related to ownership and operation of EV charging stations.

Otter Tail Power Company (Otter Tail or the Company) has included comments below to address the Commission's interest in ownership and operation of EV charging stations and general EV charging infrastructure issues.

II. GENERAL COMMENTS

Otter Tail believes utilities and the Commission serves a significant and necessary role in the advancement of customer access to EV technologies in North Dakota. One of the largest barriers to customer EV adoption is the lack of available public charging infrastructure[1]. This is especially true in the rural areas that Otter Tail serves in North Dakota. One of Otter Tail's goals

[1] "The availability of retail stations can be a significant barrier to the adoption of alternative fuel light-duty vehicles I household markets." National Renewable Energy Laboratory, *Consumer Convenience and the Availability of Retail Stations as a Market Barrier for Alternative Fuel Vehicles,* (link).

is to ensure its customers have access to modern electric technologies that often provide convenience, safety, affordability, increase local commerce, and satisfy customer's expectations.

Otter Tail views the future of electric transportation in its service area as an excellent opportunity to meet these goals and customers growing expectations. In 2018, Otter Tail performed a residential survey asking customers about their interest level in several electric technologies. Customer were asked the likeliness of purchasing an EV in the next 3-5 years. Approximately 3 percent of customers responded they were very likely or somewhat likely to purchase an EV. Customers were also asked to select the top reasons for not purchasing an EV. The main obstacles included cost to purchase the EV (22 percent), lack of charging sites (18 percent), and lack of four-wheel drive options (17 percent). Otter Tail will be updating this survey again in the next several months to document how customer opinions have changed regarding EVs.

With many more models available or soon to be available and EV ownership costs decreasing, it is likely customer interest is growing more and more for this technology. However, Otter Tail believes regulated electric utilities in partnership with the Commission have a role to play to ensure barriers are removed to encourage ownership of this advancing technology.

Otter Tail appreciates the Commission's interest in EV regulatory issues and encourages the Commission to develop a set of standards or provide other support to encourage utilities to advance EV technologies in North Dakota. Otter Tail recommends the Commission develop a EV policy framework for utilities to follow which will advance EV ownership in North Dakota. Items the Commission should consider in an EV framework may include but are not limited to:

1. **Utility development and ownership of Direct Current Fast Charing (DCFC) networks.** These networks provide a minimal but reliable EV charging infrastructure strategically located to ensure all customers have access to fast EV charging.
2. **Utility rate offerings for public charging sites that allow both utility and third-party developer ownership and operation.** These options allow the utility or a third-party to bill EV drivers for energy used for EV charging.

3. **Rate options that encourage off-peak EV charging**. Availability of off-peak rate options at customers' homes and businesses allows low-cost EV charging that improves efficiency of electric grid.
4. **Programs that build awareness and work with customers to grow EV ownership and increase economic activity**. For example: working with EV dealerships to increase sales and working with restaurants, universities, downtowns, and destination areas on how to become a EV charging host site.
5. **Reporting ND EV registrations**. Otter Tail has found it very helpful in Minnesota where the Minnesota Public Utilities Commission (MPUC) staff works with the state's vehicle registration agency to report the number of EVs for each utility. The Commission could work with North Dakota Department of Transportation to gain this same information and report to utilities through this docket annually. The number of EVs, type of EV (plug-in or hybrid), class of EV (light-duty, medium, heavy) and community registered in would be very helpful when planning utility EV initiatives.
6. **Allow for and encourage public funding sources for EV infrastructure**. The Commission should encourage utilities to seek public funding sources for EV infrastructure development and advocate that investor owned utilities should have access to any public funding offered by state agencies.
7. **Advanced Determination of Prudence and Cost Recovery**. The Commission should provide guidance for utilities to submit plans supporting the above initiatives and the possibility of cost recovery of associated costs.

III. OTTER TAIL'S EV INITIATIVES TO DATE

Over the last several years, Otter Tail has taken several initial steps to increase EV adoption in North Dakota. The Company installed three Level 2 (L2), 7-10 kilowatt, chargers in North Dakota communities for free public charging, offers a low-cost off-peak charging rate, offers a $400 customer rebate for charging equipment placed on off-peak rates, and are a member of the EV Coalition working group who recently drafted the Electric Vehicle Infrastructure Study SB2061 for the North Dakota legislature. While these initial steps have been impactful to L2 host sites and a small number of customers, a significant next step must be taken to remove barriers for widespread EV adoption.

In an effort to learn more about EV charging infrastructure and associated costs, Otter Tail worked with a developer in 2019 to develop a 50 kW DCFC site in Fergus Falls, Minnesota. Otter Tail funded a large portion of the project and was also able to leverage funds from the U.S. Department of Energy to complete the project. The project took many months of planning and development including easement procurement, permit procurement, development of relationships with the host-site partner and neighbors, and construction/installation. In mid-January 2020, the DCFC station was complete, energized, and available to customers for charging. Otter Tail has learned a great deal from this project including a better understanding of what is required to develop a single site and insight into developing a larger DCFC network.

On January 21, 2020, Otter Tail filed a petition with the MPUC requesting approval of a plan for Otter Tail to:

1. Build, own, and operate eleven DCFC sites,
2. Provide incentives to ten host sites for development of L2 charging,
3. Implement a new rate schedule allowing the Company to directly bill EV charging drivers and a rate schedule that allows third-party EV charging site developers to take service,
4. Modify its off-peak rates to allow EV charging[2],
5. Propose a budget for implementation, administration, and promotional costs of EV activities,
6. Allow deferred accounting treatment of EV costs to be reviewed and considered by the MPUC during the Company's next general rate case.

On August 27, 2020, the MPUC approved Otter Tail's proposals; however, the written order has not been issued at this time.

The Company has included Attachment 1 with these comments illustrating a map DCFC sites selected for development in Minnesota and potential DCFC and L2 sites in North Dakota and South Dakota. The colored circles are centered on potential sites. They have been arranged

[2] The change was approved by the North Dakota Public Service Commission in Otter Tail's most recent North Dakota rate case, PU-17-398.

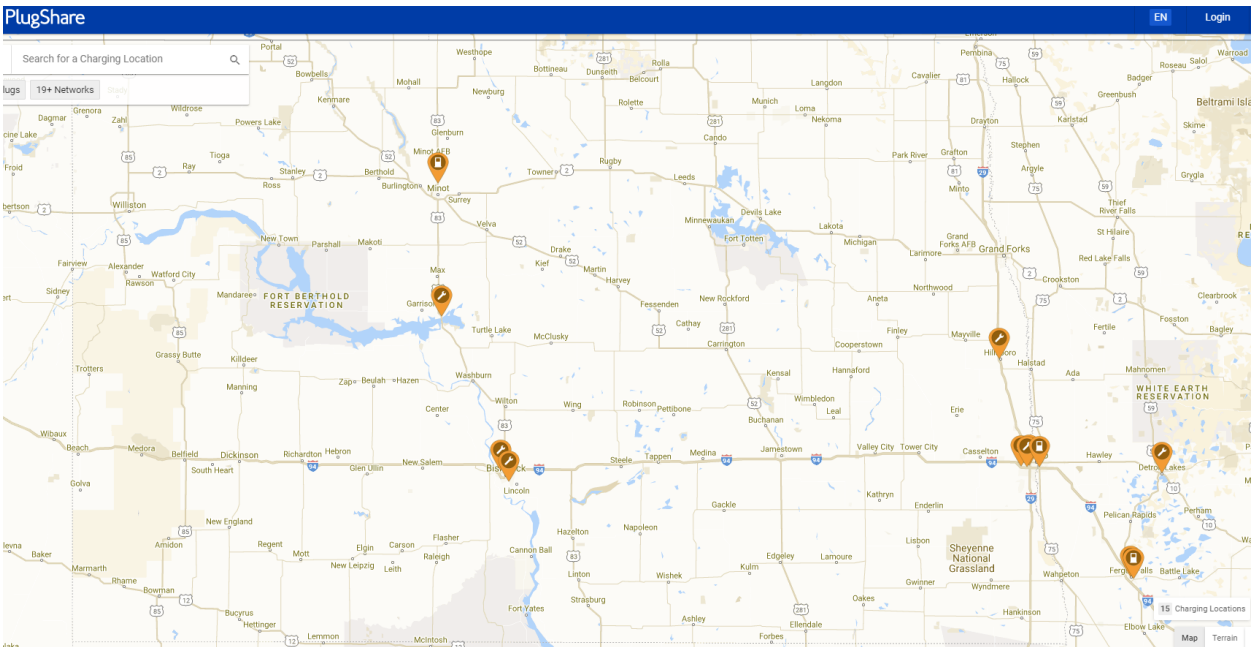
so 97 percent of Otter Tail's customers are within 30 miles of a DCFC site and 100 percent of customers are within 60 miles of a DCFC site.

Otter Tail is focused on increasing customer access to both public and private charging resources that are necessary and fundamental to enabling EV ownership in rural areas. Otter Tail hopes to bring a filing to the Commission in 2021 requesting development and ownership of a DCFC network and supporting Level 2 charging infrastructure across its North Dakota service area as outlined in Attachment 1.

IV. REGULATED UTILITIES ARE NEEDED TO CREATE A COMPETITIVE MARKET

Electric utilities building and operating a limited EV charging network does not create barriers to the competitive market but instead leads to the creation of competitive market where no competitive market currently exists. Figure 1 from www.plugshare.com shows the free-market has failed to invest in North Dakota charging infrastructure. Figure 1 shows only a handful of D fast chargers available, spread across the state with large gaps of coverage in between them. Because of this lack of investment, it is likely customers have not adopted EVs as quickly as other areas that have a well-placed charging network.

Figure 1, Non-Tesla DC Fast Chargers in North Dakota, August 2020.



Traditional monopolistic utilities that are regulated by energy commissions provide essential energy infrastructure which enables general commerce or the free market to exist. Regulated utilities building a limited EV charging network fill a gap not currently provided by the free market and help to create economic opportunities that currently do not exist. This basic infrastructure makes EV ownership a reality for many customers, and as EV adoption grows, EV charging infrastructure developers will respond with additional infrastructure to enhance the EV drivers experience even more. The utility's role for EV charging is not to dominate this space but to build a foundation which spurs EV customer adoption and creating opportunities for third-party developers to further build a competitive EV charging market.

The Company has an obligation to provide a basic level of service across its service area. If utilities do not address the lack of infrastructure necessary for EV users to travel to and within any part of their service territory without inordinate risk of being stranded and inordinate inconvenience, utilities will not have met this basic obligation.

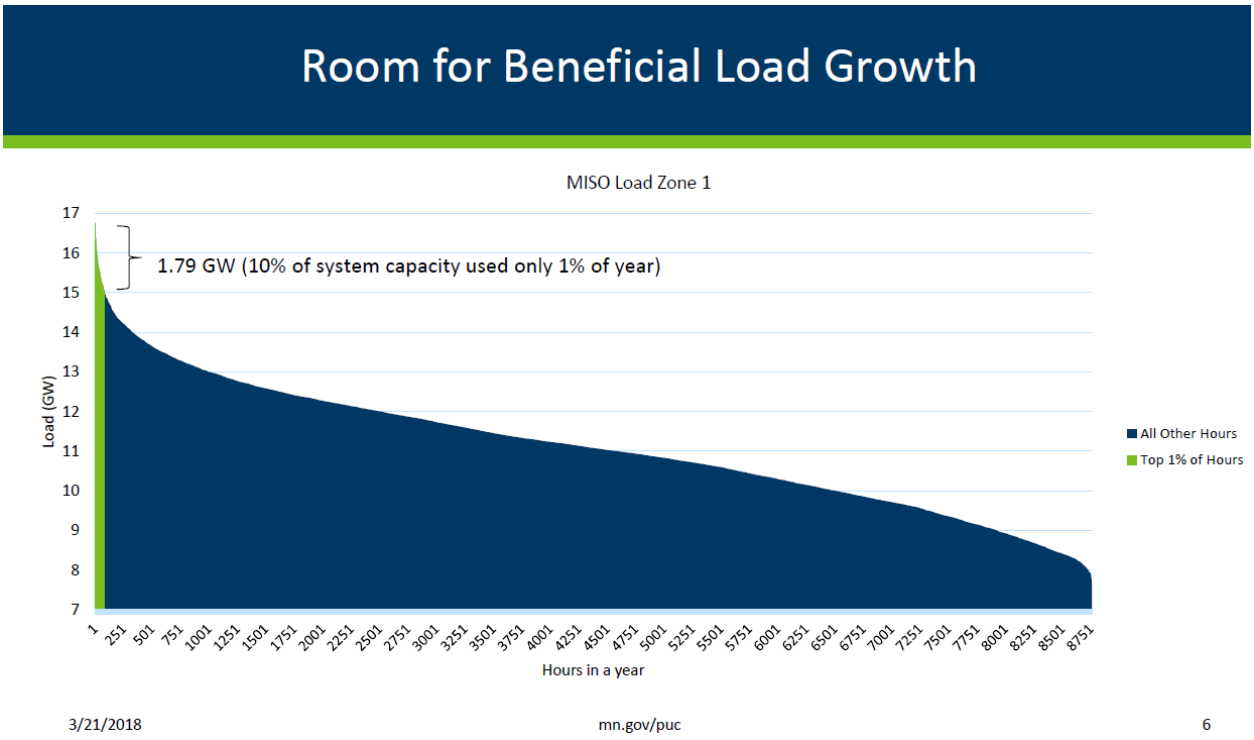
As the energy industry transforms towards new technologies Otter Tail wants to ensure its rural service area is not left behind or disadvantaged compared to more urban areas. For comparison, many of Otter Tail's rural areas were disadvantaged by the roll out of broadband internet networks. More recent enhanced government investments into rural broadband have improved broadband in Otter Tail's rural areas. Otter Tail hopes to avoid a similar situation when it comes to new beneficial technologies such as EVs.

Otter Tail believes a limited network of DCFC stations will be used by more than Otter Tail customers. EV technology creates a new paradigm: customers are no longer only receiving a monthly bill for stationary service, and they are also mobile energy users. These mobile energy users will rely on DCFC networks to provide a seamless transportation experience. They will need to be able to count on a reliable DCFC network to drive their EV to a grandparent's house in Langdon, a lake cabin near Bottineau, a child's hockey game in Wahpeton, or a college visit in Jamestown. Otter Tail's goals are aimed at making these trips possible. If these trips are not possible, EV adoption rates will remain limited for ND residents and restrict EV tourist seeking to travel legendary North Dakota.

V. OPTIMIZATION OF ELECTRIC GRID

Electric vehicles and other beneficial electrification technologies have the opportunity to improve the efficiency of the electric grid. Figure 2, provided by the Minnesota Public Utilities Commission, illustrates the utilization of the electric system in MISO Load Zone 1 over all hours of a year. The top of the green vertical bar on the left shows that 1.79 GW or approximately 10 percent of the system is only used for 1 percent of the hours annually. This leaves lots of opportunity for EVs and other electric technologies to charge in lower-cost periods making this chart flatter by more efficiently utilizing the electric infrastructure that already exists. Flattening this curve could also lead to more efficient power production as well, allowing power plants to operate in a more stable manner and low-cost North Dakota wind generation to be used locally.

Figure 2, Optimization of Electric System



VI. CONCLUSION

As stated previously, Otter Tail believes the Commission serves a significant and necessary role in the advancement of customer access to EV technologies in North Dakota. With the lack of investment in public EV charging infrastructure and the Commission's ability to regulate utilities, there is an opportunity for a partnership between the Commission and utilities to ensure North Dakota and especially rural areas, currently not desired by developers, are provided EV charging services. Otter Tail recommends the Commission develop a EV policy framework for utilities to follow which will advance EV ownership in North Dakota. Items the Commission should consider in an EV framework may include but are not limited to:

1. **Utility development and ownership of basic Direct Current Fast Charing (DCFC) networks.** These networks provide a minimal but reliable EV charging infrastructure strategically located to ensure all customers have access to fast EV charging.
2. **Utility rate offerings for public charging sites that allow both utility and third-party developer ownership and operation.** These options allow the utility or a third-party to bill EV drivers for energy used for EV charging.
3. **Rate options that encourage off-peak EV charging**. Availability of off-peak rate options at customers' homes and businesses allows low-cost EV charging that improves efficiency of electric grid.
4. **Programs that build awareness and work with customers to grow EV ownership and increase economic activity**. For example: working with EV dealerships to increase sales and working with restaurants, universities, downtowns, and destination areas on how to become a EV charging host site.
5. **Reporting ND EV registrations**. Otter Tail has found it very helpful in Minnesota where the MPUC staff works with the state's vehicle registration agency to report the number of EVs for each utility. The Commission could work with North Dakota Department of Transportation to gain this same information and report to utilities through this docket annually. The number of EVs, plug-in or hybrid, and registration community would be very helpful when planning utility EV initiatives.

6. **Allow for and encourage public funding sources for EV infrastructure**. The Commission should encourage utilities to seek public funding sources for EV infrastructure development and advocate that investor owned utilities should have access to any public funding offered by state agencies.
7. **Advanced Determination of Prudence and Cost Recovery**. The Commission should provide guidance for utilities to submit plans supporting the above initiatives and the possibility of cost recovery of associated costs.

Otter Tail looks forward to working with the Commission and Staff on creating policy or guidelines to build opportunities for North Dakota customers interested in EV technologies.

Dated: October 23, 2020

Respectfully submitted,

OTTER TAIL POWER COMPANY

By: *<u>/s/ JASON A. GRENIER</u>*
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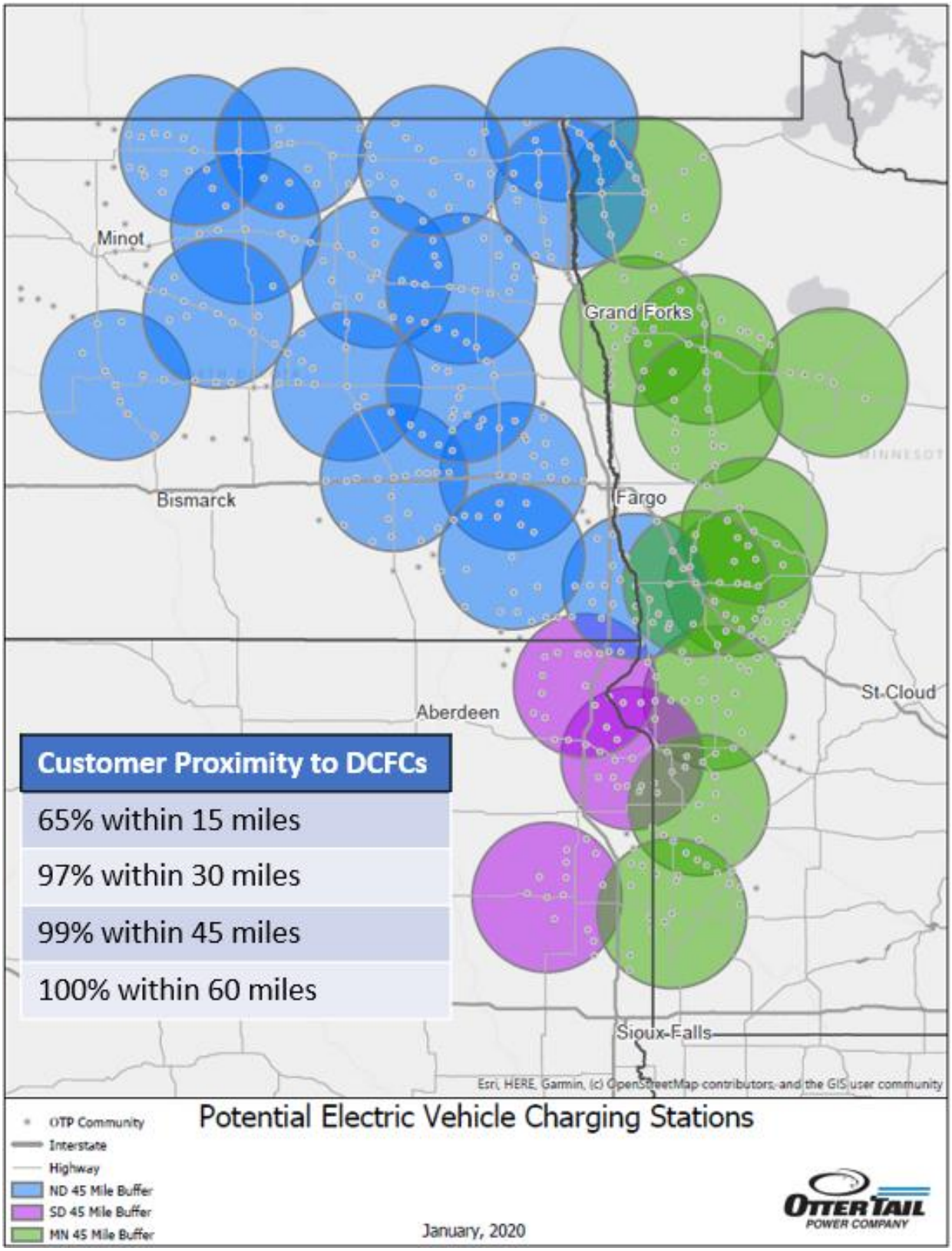
Minot
Grand Forks
Bismarck
Fargo
Aberdeen
St-Cloud
Sioux-Falls
Customer Proximity to DCFCs
65% within 15 miles
97% within 30 miles
99% within 45 miles
100% within 60 miles
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
OTP Community
Interstate
Highway
ND 45 Mile Buffer
SD 45 Mile Buffer
MN 45 Mile Buffer
Potential Electric Vehicle Charging Stations
January, 2020
OTTER TAIL POWER COMPANY