

Hamre, John G.

From: Wahlund, Stacy J <swahlund@otpc.com>
Sent: Monday, November 14, 2022 4:18 PM
To: -Info-Public Service Commission
Cc: Grenier, Jason; Ward, Kim
Subject: OTP's Comments on Electrification of Transportation, Case No. PU-22-147
Attachments: PU-22-147_2022-11-14_Comments_OTP.pdf

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Good afternoon,

Attached are Otter Tail Power Company's Comments on the Electrification of Transportation, Case No. PU-22-147.

The original and copies will be sent to you by U.S. mail today.

If you have any questions, please contact Jason Grenier at 218-739-8639 or JGrenier@otpc.com.

Thank you!

Stacy Wahlund



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November 14, 2022

Mr. Steve Kahl
Director of Administration/Executive Secretary
North Dakota Public Service Commission
State Capitol
600 East Boulevard, Dept. 408
Bismarck, ND 58505-0408

**RE: In the Matter of the Commission Requesting Comments on Measures to
Promote Greater Electrification of the Transportation Sector
Case No. PU-22-147
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 comment on measures to promote greater electrification of the transportation sector.

An original and copies have been sent to you via USPS.

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

Sincerely,

/s/ *JASON GRENIER*
Jason Grenier, Manager
Market Planning

sjw
Enclosures
By electronic filing and U.S. mail

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

**In the Matter of the Commission
Requesting Comments on Measures
to Promote Greater Electrification of
the Transportation Sector**

Case No. PU-22-147

COMMENTS

I. BACKGROUND

On March 30, 2022 the North Dakota Public Service Commission (Commission) issued an Order Requesting Comment on Measures to Promote Greater Electrification of the Transportation Sector. The order was in response to the passage of the federal Infrastructure Investment and Jobs Act (IIJA) which required each state to, consider measures to promote greater electrification of the transportation sector, including the establishment of rates. The IIJA requested information on points one through four in section B below. The Commission further requested public electric utility comment on sections A, C, D, and E as included below.

- A. A report of existing measures used to promote electrification of the transportation sector by the electric public utility.
- B. Existing rate mechanisms that:
 - 1. promote affordable and equitable electric charging options;
 - 2. improve customer experience associated with charging;
 - 3. accelerate third-party investment;
 - 4. and appropriately recover the marginal costs of delivering electricity to electric vehicles and electric vehicle infrastructure.
- C. Previous actions taken by the Public Service Commission or State Legislature to implement the standard or a comparable standard.
- D. Appropriate measures to promote greater electrification of the transportation sector.
- E. Any other information that the Commission should consider.

Otter Tail Power Company (Otter Tail or the Company) responded to the Commission's March 30, 2022, request and filed comments on June 15, 2022. On September 7, 2022, the Commission scheduled a public hearing to consider the four points outlined in letter B above. On October 3, 2022, the Commission issued a Notice of Issues

and Request for Comment, due to the Commission by November 14, 2022. The areas of interest requested are included below with Otter Tail's response comments.

II. ISSUES AND COMMENTS

A. ***Whether ownership of electric vehicle charging stations should be permitted by regulated utilities. If permitted, under what conditions?***

Ownership of electric vehicle (EV) charging stations should be permitted for regulated utilities. Otter Tail is a small electric utility serving over 200 small towns in North Dakota, with Jamestown being our largest community. Most areas we serve are rural and areas less traveled. Otter Tail provides a certain level of electric service to our communities as we are allowed by the Commission, and the Company views EV charging as an extension of the basic electric service we provide to customers in these areas.

As an electric provider our goal is not to infringe on any entity who wants to invest in EV charging sites. Instead, our goal is to make sure customers do not find themselves without service in any of our service areas. Access to a reliable charging network is very important to the areas we serve. A reliable charging network supports the free market by allowing customer choice in which vehicle they may purchase, thereby avoiding the issue of purchasing a vehicle with no existing public charging options. A reliable charging network also supports commerce to flow to our rural areas including supporting the state's robust tourism industry.¹

In this proceeding, we ask the Commission to be open to utility proposals that support electrification of transportation and provide long-term public benefits to North Dakotans.

B. ***What should the Commission consider regarding unfair competition between third-party charging entities and regulated utilities?***

The Commission has authority to review and authorize any EV rate proposal made by utilities. Otter Tail would likely propose something similar to its Minnesota rates where the third-party rates and OTP-owned charger rates are built on the

¹ <https://www.medialibrary.nd.gov/assetbank-nd/assetfile/94929.pdf> (2021 data showed more than 21.7 million visitors contributing \$2.6 billion in total traveler spending and \$237 million in visitor paid taxes. Tourism also contributed to more than 2,700 related businesses and organizations and more than 35,000 jobs to North Dakota residents).

same marginal costing principles and provide fair and consistent pricing across both offerings.

Otter Tail does not want to displace private investment in fast charging, but we believe all customers in all areas need access to fast charging. Without a comprehensive utility plan some areas will be overserved, and many areas will be underserved.

C. *Should the Commission consider special tariffs or rates for residential electric vehicle charging?*

Yes, the Commission should consider special rates for residential electric vehicle charging and consider them on a case-by-case basis. Otter Tail's future residential proposals will likely focus on maximizing charging during the off-peak periods, which lessens the cost of charging for customers and reduces infrastructure investments the utility makes.

D. *Whether the Commission should consider pilot programs in anticipation of the electrification of the transportation sector? If so, what pilot programs?*

The Commission should review each utility proposal on a case-by-case basis determining how it provides public benefits. Otter Tail will likely propose projects that have been successful in Minnesota. These include:

1. A minimum, but reliable, fast-charging network geographically located to provide equal access to reliable fast charging for all our North Dakota customers,
2. Level 2 charging investment in other communities to strengthen the fast-charging network,
3. Offer off-peak or Time of Day residential and commercial charging options, and
4. Offer make-ready charging infrastructure for third-party developers.

E. *What is the anticipated distribution system impact from residential and fleet charging?*

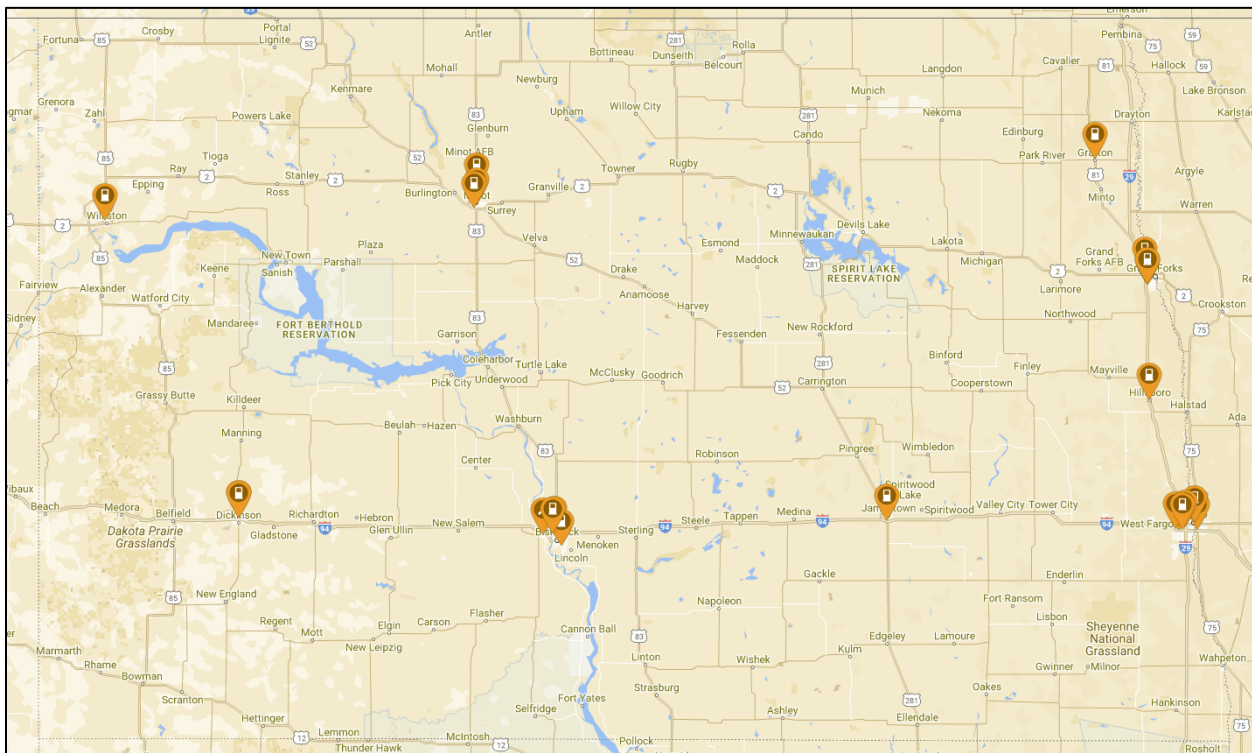
Grid impacts from EV adoption will be able to be managed as EV popularity and adoption grows. The Company's recently approved Advanced Meter and Distribution Technology project will use advanced metering technology to provide the Company the ability to have more optics at each customer site, allowing the Company to protect the grid and make additional investments only when necessary.

III. OTHER ITEMS FOR CONSIDERATION:

Equal access to all North Dakota residents

Currently access to public Direct Current Fast Chargers (DCFC) is very limited in North Dakota. The figures below were taken from *Plugshare*,² an open network website that shows current public charging available in an area. As shown in Figure 1, North Dakota residents do not have access to chargers outside of major corridors and urban areas. As highlighted in Figure 2, residents are further limited if they do not own a Tesla and would struggle to navigate across the state year-round. The lack of charging availability is creating unnecessary burden and limiting North Dakota residents from participating in the free market and making an open choice as to what vehicle option they would like to select. Figure 3 provides context to where the market is installing faster charging capabilities above 50 kW, as truck and SUV models with larger batteries are brought to market.

Figure 1: Fast Charging sites including Tesla Network



² <https://www.plugshare.com/>.

Figure 2: Non-Tesla Networks 50 kW and above

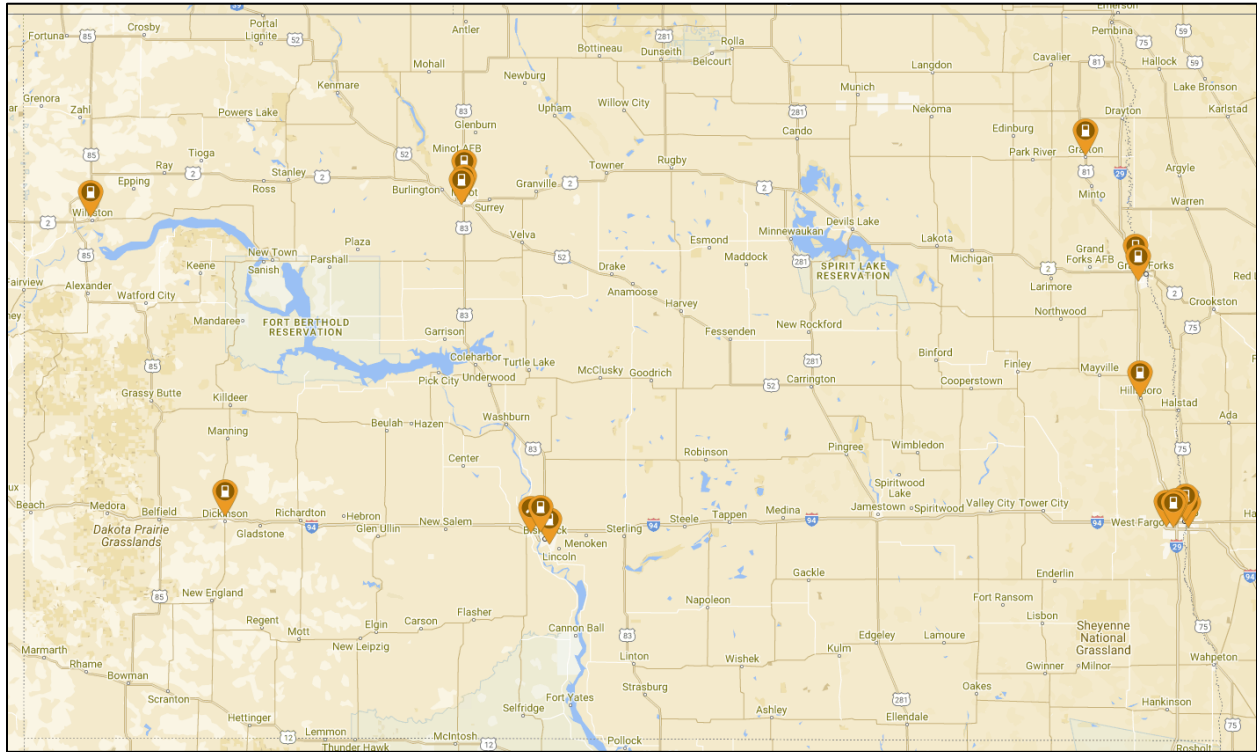
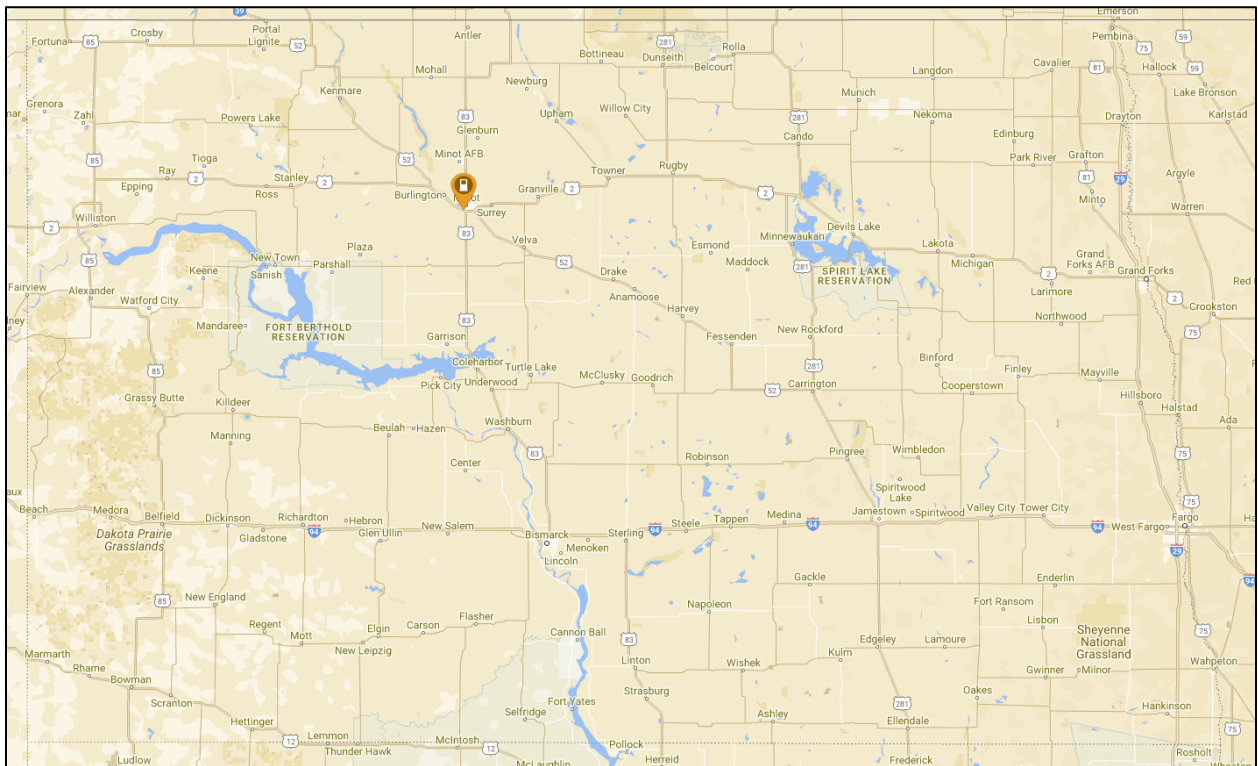


Figure 3: Non-Tesla Networks above 50 kW



Grid capacity and efficiency

The graph below in Figure 4, provided by the Minnesota Public Utilities Commission, contains Midcontinent Independent System Operator (MISO) Load Zone 1 data which illustrates the capacity of the grid and how many annual hours the year the grid is at each capacity level.

Figure 4

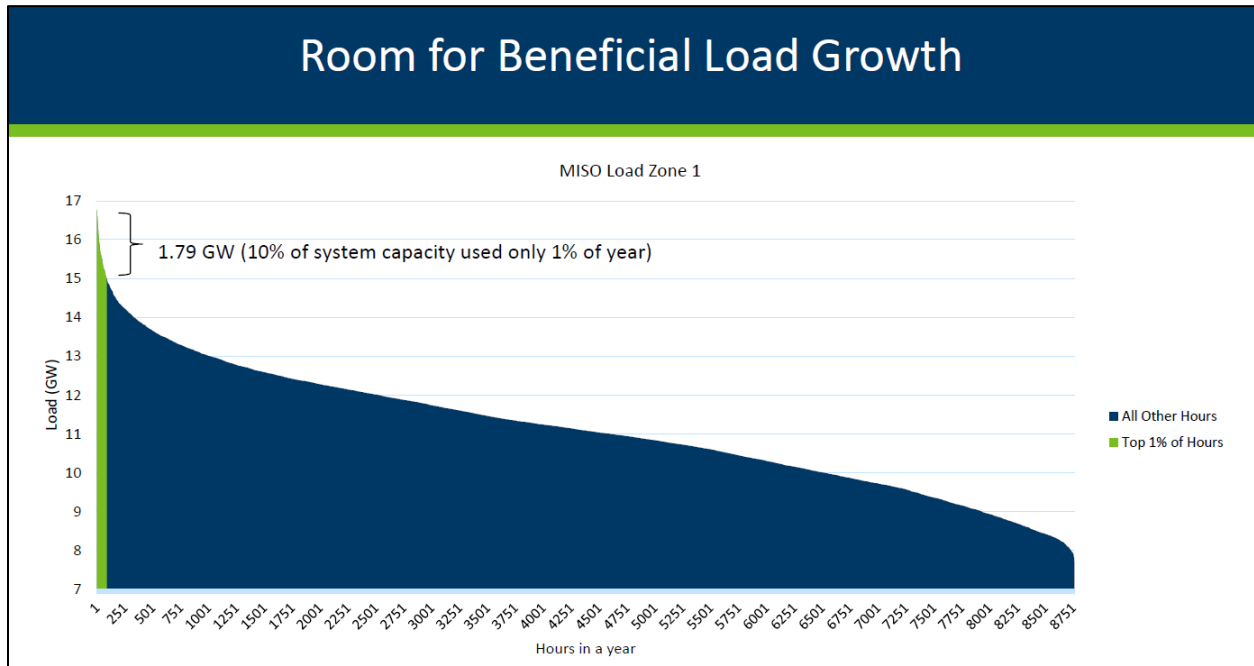


Figure 4 highlights the system is not efficient since 10 percent of the system capacity is utilized only 1 percent of the year resulting in a high percentage of capacity investment being underutilized. Utility shareholders do not receive a return on investment when customers non-peak energy usage increases (area above blue area in Figure 4). Instead, customers save money by better utilizing the available capacity of the grid and spreading those capacity investment costs across more energy usage resulting in price reducing pressure per kWh. By better utilizing the non-peak periods, utility shareholders do not need to invest more capital in the grid to support EV charging. It is also important to note that all studies monitoring electric vehicles have shown 80 percent³ or above of EV charging occurs at the home. This creates a great opportunity for utilities to utilize time of day rates or other demand control initiatives to avoid increasing loads during peak times while gaining benefits to the system and customers.

³ <https://www.nrel.gov/docs/fy21osti/78540.pdf>.

Subsidy risk

At the November 3, 2022, Commission meeting, the Commission highlighted potential subsidy risk as a concern and the potential impacts to a residential customer. Otter Tail thought it would be beneficial to provide some context to potential customer impacts under a worst-case economic scenario. The worst-case scenario assumes the Company builds a basic minimum network, similar to Otter Tail's Minnesota EV infrastructure pilot, that would include placing a DCFC site within 50 miles of all the Company's North Dakota customers.

With the recent market shift and supply chain issues causing price increases the Company estimates the network would cost approximately \$4 million. The equipment would be depreciated over approximately a seven-year period. The worst-case economic scenario includes the following assumptions: no revenue is collected from energy usage at DCFCs, the expected electric vehicle adoption does not occur, and does not include revenue collected from customers home charging their EVs. Allocating the costs across all North Dakota customers and energy usage (utilizing 2021 data), Otter Tail estimates an average residential customer would see a peak \$0.68 bill increase, on a monthly basis in year two, and then would see a decrease in following years. As highlighted, this is assuming the worst case and does not take into consideration any other opportunities for revenue from charger stations or price reducing pressure as discussed in the grid capacity section above if charging occurs during non-peak periods.

IV. CONCLUSION

Otter Tail requests the Commission to support regulated electric utilities bringing EV infrastructure, EV charging rates, and education proposals that provide public benefits before them. The Company is interested in North Dakota becoming a competitive market for the sales of many models of electric vehicles to fit customers' diverse driving needs and provide customer choice. To accomplish a competitive EV marketplace in North Dakota and to continue to bring commerce to rural and less traveled areas, a robust public fast-charging network must be built so customers are assured they can seamlessly travel throughout the state. The Company believes it is well positioned to install a minimum, but reliable, network of public fast-charger sites, geographically located to allow convenient access to all its North Dakota customers. The Company looks forward to serving its customers through transportation electrification by working with the Commission to establish EV infrastructure, rates, and educational programs.

Dated: November 14, 2022

Respectfully submitted,

OTTER TAIL POWER COMPANY

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Jason Grenier, Manager
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