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February 19, 2018

Mr. Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101-2147

**RE: In the Matter of Establishing an Estimate of the Costs of Future Carbon Dioxide Regulation on Electricity Generation under Minn. Stat. §216H.06
Docket No. E999/DI-17-53, Docket No. E999/CI-07-1199
Comments**

Dear Mr. Wolf,

Enclosed are Otter Tail Power Company's (Otter Tail's) Comments in the matter referenced above. These Comments have been electronically filed with the Minnesota Public Utilities Commission and copies have been served on all parties on the attached service lists. A Certificate of Service is also enclosed.

Please contact me at 218-739-8417 or bhdraxten@otpc.com with any questions you may have.

Sincerely,

/s/ BRIAN DRAXTEN
Brian Draxten
Manager, Resource Planning

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Enclosures
By electronic filing
c: Service List

**STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION**

In the Matter of Establishing an Updated
Estimate of the Costs of Future Carbon
Dioxide Regulation on Electricity
Generation under Minn. Stat. §216H.06

Docket No. E999/DI-17-53
Docket No. E999/CI-07-1199

COMMENTS OF OTTER TAIL POWER COMPANY

Otter Tail Power Company (Otter Tail) submits these Comments in response to the Minnesota Public Utilities Commission (Commission) Notice of Comment Period dated January 23, 2018, in the above captioned matter. The Commission's Request for Comments invited comments on the range of cost estimates for the future cost of carbon dioxide (CO₂) regulation on electricity generation. In addition, the Commission requested certain specific information from the utilities.

I. Topics Open for Comment

- **Should the Commission adopt the Agencies' recommendations?**

Otter Tail agrees that reducing the range of the likely costs of CO₂ results in a more appropriate range in today's environment. A range of \$5 to \$25 with a midpoint of \$15 is reasonable and Otter Tail would favor adoption by the Commission.

The Agencies' recommendation to delay the start of using this range from the current 2022 to 2025 is more appropriate. While Otter Tail believes that a starting date of 2028 may be more realistic, 2025 is not unreasonable and the Company could support using that as a starting date.

- **If not, what CO₂ values should the Commission set for the range of costs of future carbon regulation?**

Otter Tail does not recommend any other ranges for the costs of future carbon regulation.

- **In setting the likely range of costs of future CO2 regulation, should the Commission consider a state- or regional-level cost of compliance as opposed to a national-level cost of compliance (such as the national CO2 price developed by Synapse Energy Economics, Inc. in its March 2016 forecast)?**

This is difficult to predict. At this time Otter Tail believes a national-level cost of compliance is a realistic scenario, but there may be additional clarity from EPA within the next 1-2 years as EPA considers the proposed repeal and replacement of the Clean Power Plan. EPA has issued an advance notice of proposed rulemaking (ANOPR) to solicit information on a possible future rule. The ANOPR requests information on a broad range of subjects, including potential compliance flexibilities such as emissions averaging and mass-based trading.

- **Are there any other issues or concerns related to this matter?**

Otter Tail is supportive of the Agencies' recommendation that "no change to the way the value ranges established under Minn. Stat. §§ 216B.2422 and 216H.06 are applied." Otter Tail would also recommend that the Commission adopt the new range and start date for both 2018 and 2019 instead of for just one year.

II. Request for Information from Utilities Filing Initial Comments (on 9/22/17):

- **In the initial comment period, utilities referenced third party forecasting services as a basis to set CO2 values in this case. Did any utility retain a third-party vendor to produce a utility-specific and/or national compliance cost for the EPA Clean Power Plan? Is any utility aware of compliance cost estimates that could inform state-or regional-regulatory scope?**

Otter Tail did not retain a third-party vendor; however, we are aware of third-parties that developed compliance cost estimates for the Clean Power Plan. For example, the Nicholas Institute issued a working paper in July 2016 that modeled compliance costs of several different Clean Power Plan regional and national policy scenarios (<https://nicholasinstitute.duke.edu/climate/publications/ongoing-evolution-electricity-industry->

effects-market-conditions-and-clean-power-plan). That report includes several figures depicting how mass-based allowance prices could have evolved under a range of Clean Power Plan scenarios. In general, allowance prices were predicted to remain below \$15/ton prior to 2030 in nearly all sensitivities.

Otter Tail strongly cautions that since EPA is proposing to repeal the Clean Power Plan, any third-party estimates are not likely to be accurate predictors of the costs of compliance of a future rulemaking.

- **Using an average of 2010-2012 operations as a baseline, and using the most recently approved integrated resource plan (IRP) for forward-looking projections, please provide the utility’s total emission reductions and carbon-intensity on the utility system. Please provide projections through the last year of the utility’s most recently approved IRP.**

2010-2012 operational baseline

Year	CO2 Emissions (Million Tons)	CO2 Intensity (lb/MWh)
2010	4.14	1,916
2011	4.10	1,893
2012	3.79	1,773
Average	4.01	1,861

IRP forward looking projections

Year	CO2 Emissions (Million Tons)	CO2 Intensity (lb/MWh)
2017	4.35	1,602
2018	4.06	1,472
2019	3.99	1,457
2020	3.74	1,361
2021	3.82	1,361
2022	3.4	1,187
2023	3.48	1,191

2024	3.56	1,198
2025	3.56	1,175
2026	3.67	1,206
2027	3.65	1,194
2028	3.54	1,152
2029	3.67	1,189
2030	3.66	1,180
2031	3.59	1,156

III. Conclusion

Otter Tail supports the Agencies' recommendation to begin using a range of \$5-\$25 per ton of CO2 emitted beginning in 2025. We also support the recommendation that no change should be made in the way the range is applied. Otter Tail recommends that this range and start time be applied for a two-year time period covering both 2018 and 2019.

If you have any questions regarding these comments, please feel free to contact Brian Draxten at bhdraxten@otpc.com or 218-739-8417.

Dated: February 19, 2018

Respectfully submitted,

OTTER TAIL POWER COMPANY

By: /s/ BRIAN DRAXTEN

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CERTIFICATE OF SERVICE

**RE: In the Matter of Establishing an Estimate of the Costs of Future Carbon Dioxide Regulation on Electricity Generation under Minn. Stat. §216H.06
Docket No. E999/DI-17-53, Docket No. E999/CI-07-1199**

I, Kim Ward, hereby certify that I have this day served a copy of the following, or a summary thereof, on Daniel P. Wolf and Sharon Ferguson by e-filing, and to all other persons on the attached service list by electronic service or by First Class Mail.

**Otter Tail Power Company
Comments**

Dated this 19th day of **February, 2018.**

/s/ Kim Ward
Kim Ward, Regulatory Filing Coordinator
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