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November 25, 2020



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

**PUBLIC DOCUMENT – NOT PUBLIC
(OR PRIVILEGED) DATA HAS BEEN EXCISED**

**Re: In the Matter of Otter Tail Power Company’s Petition for Approval of the
Hoot Lake Solar Project
Docket No. E017/M-20-
Initial Filing**

Dear Mr. Seuffert:

Otter Tail Power Company (Otter Tail) hereby submits to the Minnesota Public Utilities Commission (Commission) this Petition for Approval of the Hoot Lake Solar Project.

These Comments contain information that is protected by the Minnesota Data Practices Act. That information has economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by other persons and is subject to efforts by Otter Tail to protect the information from public disclosure. Otter Tail maintains this information as a trade secret based on its economic value from not being generally known and not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use. For this reason, we ask that the data be treated as non-public data pursuant to Minn. Stat. § 13.37, subd. 1(b).

Otter Tail electronically filed this document with the Commission. A Certificate of Service is also enclosed. If you have any questions, please contact me at (218) 739-8956 or at cstephenson@otpc.com.

Sincerely,

/s/ CARY STEPHENSON
Cary Stephenson
Associate General Counsel

cjh
Enclosures
By electronic filing
c: Service List

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

In the Matter of Otter Tail Power
Company's Petition for Approval of the
Hoot Lake Solar Project

Docket No. E017/M-20-

SUMMARY OF FILING

Otter Tail Power Company (Otter Tail) has requested the Minnesota Public Utilities Commission (Commission) to determine the 49.9 megawatt (MW) Hoot Lake Solar Project to be constructed at the site of the existing Hoot Lake power plant qualifies for application toward Otter Tail's solar energy standard (SES) obligations. Otter Tail has further requested the Commission authorize, as described herein, 100 percent of the output of the project to be allocated for use by Minnesota Customers and 100 percent of Otter Tail's investment in the project eligible for future cost recovery from Minnesota customers through Otter Tail's Renewable Resource Cost Recovery (RRCR) rider. Actual costs to be recovered will be presented by Otter Tail in a future RRCR rider petition.

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

In the Matter of Otter Tail Power
Company's Petition for Approval of the
Hoot Lake Solar Project

Docket No. E017/M-20-

PETITION

I. INTRODUCTION

Otter Tail Power Company (Otter Tail) requests the Minnesota Public Utilities Commission (Commission) determine the 49.9 megawatt (MW) Hoot Lake Solar Project to be constructed at the site of the existing Hoot Lake power plant qualifies for application toward Otter Tail's solar energy standard (SES) obligations. Otter Tail further requests the Commission authorize, as described herein, 100 percent of the output of the project to be allocated for use by Minnesota Customers and 100 percent of Otter Tail's investment in the project eligible for future cost recovery from Minnesota customers through Otter Tail's Renewable Resource Cost Recovery (RRCR) rider. Actual costs to be recovered will be presented by Otter Tail in a future RRCR rider petition.

The Hoot Lake Solar Project is a prudent generation addition that fulfills needs identified in Otter Tail's 2016 Integrated Resource Plan, as approved by the Commission. It is the result of the Commission's directive that Otter Tail complete a competitive bidding process to acquire approximately 30 MW or more of installed solar capacity. The Hoot Lake Solar Project will be Otter Tail's first utility-scale solar investment. As with Otter Tail's previous investments in renewable energy, the Hoot Lake Solar Project is a low-cost generation resource that will assist Otter Tail in meeting its customers' energy needs and the State of Minnesota's policies. Importantly, the Hoot Lake Solar Project reuses existing property and interconnection rights, all to the benefit of Otter Tail customers. The Hoot Lake Solar Project will benefit the Fergus Falls community following the retirement of the Hoot Lake Coal Plant.

As discussed below, the Hoot Lake Solar Project presents an opportunity for Minnesota customers to reap significant benefits from investment in a low-cost renewable energy resource. In order to maximize those benefits, Otter Tail proposes 100 percent of the Hoot Lake Solar Project

output be credited to Minnesota customers. This proposal maximizes Otter Tail's SES compliance, facilitates important contributions to Minnesota's greenhouse gas reduction goals and insulates Minnesota customers from fluctuations in energy market prices.

II. SUMMARY OF FILING

A one-paragraph summary of the filing accompanies this Petition as required Minn. R. 7829.1300, subp.1.

III. FILING INFORMATION

Pursuant to Minn. R. 7829.1300, subp. 3, Otter Tail provides the following information.

A. Name, address, and telephone number of utility

Otter Tail Power Company
215 South Cascade Street
Fergus Falls, Minnesota 56538-0496
(218) 739-8200

B. Name, address, and telephone number of utility attorney

Cary Stephenson
Associate General Counsel
Otter Tail Power Company
215 South Cascade Street
Fergus Falls, Minnesota 56538-0496
(218) 739-8956

C. Date of filing and proposed effective date of rates

The date of this filing is November 25, 2020. No rates or changes to rates are proposed by this filing.

D. Statutes controlling schedule for processing the filing

This Petition is made pursuant to Minn. Stat. §§ 216B.1691 and 216B.1645. The process of this filing is controlled by Minn. R. 7829.300 and 7829.1400. This filing also follows the

requirements established in the Commission's August 15, 2008 Order in Docket No. E017/M-08-119.¹

This filing is a "miscellaneous tariff filing" as defined by Minn. Rule 7829.0100, subp. 11. No determination of Otter Tail's overall revenue requirement is necessary under Minn. Stat. §§ 216B.1691 or 216B.1645. Minn. Rule, 7829.1400, subps. 1 and 4 permit comments in response to a miscellaneous tariff filing to be filed within 30 days and reply comments to be filed no later than 10 days thereafter. The past practice of the Commission, however, is to issue a notice setting a schedule for comments and reply comments from interested parties.

As discussed herein, Otter Tail may be able to begin construction on the Hoot Lake Solar Project in 2021 if regulatory approval in this Proceeding is received by April 30, 2020. Otter Tail is willing to work with interested parties on a procedural schedule to accommodate a decision by that date.

E. Title of utility employee responsible for filing

Cary Stephenson
Associate General Counsel
Otter Tail Power Company
215 South Cascade Street
Fergus Falls, Minnesota 56538-0496
(218) 739-8956

IV. MISCELLANEOUS INFORMATION

A. Service List

(Minn. R. 7829.0700)

Otter Tail requests that the following persons be placed on the Commission's official service list for this matter and that any not public comments, requests, or information be provided to the following on behalf of Otter Tail. Electronic service shall be sufficient.

¹ *In the Matter of the Petition of Otter Tail Power Company to Establish a Renewable Resource Cost Recovery Rider and for Approval of 2008 Cost Recovery Factor*, Docket No. E017/M-08-119, Order Approving Rider, Purchase Power Agreement, Variance and Eligibility and Adding Requirements (Aug. 15, 2008). The Commission adjusted how Otter Tail is to apply the Rider in Docket No. E017/M-08-1529. Otter Tail certifies that no affiliates are directly or indirectly involved in the Hoot Lake Solar Project.

Pete Beithon
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B. Service on Other Parties

(Minn. R. 7829.1300, subp. 2; Minn. R. 7829.0600)

Otter Tail has served a copy of this filing on the Department of Commerce - Division of Energy Resources and on the Office of the Attorney General – Antitrust and Utilities Division. The summary of the filing was served on all parties on Otter Tail’s general service list.

V. BACKGROUND AND PURPOSE OF FILING

Otter Tail is seeking a Commission determination that the Hoot Lake Solar Project qualifies towards its SES obligations. The SES requires that Otter Tail meet at least 1.5 percent of its total retail electric sales to retail customers in Minnesota with solar energy.² To date, Otter Tail has fulfilled this requirement through the purchase of Solar Renewable Energy Credits (Solar RECs or SRECs). Once online, the Hoot Lake Solar Project will produce enough solar energy to satisfy Otter Tail’s SES utility-scale solar obligations.³

Otter Tail also requests the Commission approve Otter Tail’s investments in the Hoot Lake Solar Project and determine that the Hoot Lake Solar Project is eligible for cost recovery through Otter Tail’s RRCR rider. The Commission is authorized to “approve ... investments, or expenditures entered into or made by the utility to satisfy ... the renewable energy objectives and

² Minn. Stat. § 216B.1691, subd. 2f(a).

³ At least 10 percent of the 1.5 percent SES obligation must be satisfied by solar energy generated by or procured from solar photovoltaic devices with a nameplate capacity of 40 kilowatts or less. Minn. Stat. § 216B.1691, subd. 2f(c)(1). The Hoot Lake Solar Project would not count toward the small solar SES carve-out.

standards set forth in section 216B.1691⁴ Further, because the Hoot Lake Solar Project is not subject to Commission review under Minn. Stat. §§ 216B.2422 (resource planning) or 216B.243 (certificate of need), the Commission must deem the Hoot Lake Solar Project eligible for RRCR rider recovery before Otter Tail seeks to include the Project in that rider.⁵ Otter Tail requests the Commission approve Otter Tail's investments in the Hoot Lake Solar Project and deem Hoot Lake Solar Project costs eligible for RRCR rider recovery as described in this Petition, though specific costs will remain subject to review in future RRCR rider filings.

VI. THE HOOT LAKE SOLAR PROJECT

The Hoot Lake Solar Project is a 49.9 MW solar generating facility that will be located at the site of Otter Tail's existing Hoot Lake Coal Plant in Fergus Falls, Minnesota.⁶ The Hoot Lake Solar Project provides several unique benefits for Otter Tail's customers, the Fergus Falls community and Minnesota.

The Hoot Lake Solar Project will consist of approximately 150,000 solar panels with total capacity of 49.9 MW. The Hoot Lake Solar Project will be located on approximately 450 acres of OTP-owned property near Hoot and Wright lakes in Fergus Falls. The Hoot Lake Solar Project's annual energy output is expected to be approximately 105,000 megawatt hours (MWh), at a projected net capacity factor of approximately 24 percent.

The Hoot Lake Solar Project provides a unique opportunity to re-use several components of the soon-to-be-retired Hoot Lake Coal Plant. The land associated with the Hoot Lake Coal Plant constitutes a significant portion of the total Hoot Lake Solar Project site. Otter Tail secured additional parcels in the summer and fall of 2020 and has the entire Project site under company control. Otter Tail also may be able to use portions of existing infrastructure at the Hoot Lake Coal Plant for construction and/or operation of the Hoot Lake Solar Project.

One of the most important features of the Hoot Lake Solar Project is the ability to utilize existing interconnection rights associated with the Hoot Lake Coal Plant that is being decommissioned in 2021. The Midcontinent Independent System Operator's (MISO) tariff provides for a streamlined review process of proposed generation replacements, significantly reducing the

⁴ Minn. Stat. § 216B.1645, subd. 1.

⁵ Minn. Stat. § 216B.1645, subd. 2a.

⁶ The Hoot Lake Coal Plant is scheduled to be decommissioned by May 31, 2021.

costs, timeline, and risks associated with bringing new resources onto the system.⁷ Otter Tail took steps to preserve its interconnection rights for the Hoot Lake site by submitting a generator replacement request to MISO on May 15, 2020.⁸ Otter Tail anticipates the MISO interconnection agreement will be finalized in mid-2021.

Otter Tail also has taken other steps to advance the Hoot Lake Solar Project. To date, Otter Tail has secured all necessary land, commenced engineering of the Hoot Lake Solar Project, procured Investment Tax Credit (ITC) safe harbor materials and issued requests for proposals (RFPs) for the balance of the project costs and labor. Otter Tail has worked with the City of Fergus Falls on the development of an Environmental Assessment Worksheet (EAW) for the Hoot Lake Solar Project, which was approved for publication by the Fergus Falls City Council on November 16, 2020.⁹ The EAW process is expected to be completed in the first quarter of 2021. Otter Tail will work with the City of Fergus Falls, Otter Tail County and other local governmental units through the process of annexing into the City the portion of the Hoot Lake Solar Project site currently outside the current municipal boundary.

Otter Tail could begin construction on the Hoot Lake Solar Project in 2021 if regulatory approval in this Proceeding is received by April 30, 2020. Otter Tail is willing to work with interested parties on a procedural schedule to accommodate a decision by that date. The Hoot Lake Solar Project must be in service by December 31, 2023 to maximize the benefits of the ITC.

VII. THE HOOT LAKE SOLAR PROJECT WILL MEET OTTER TAIL'S SES OBLIGATIONS.

The SES requires that Otter Tail meet at least 1.5 percent of its total retail electric sales to customers in Minnesota with solar energy.¹⁰ With the addition of the Hoot Lake Solar Project, approximately 4 percent of Otter Tail's total Minnesota retail sales will be generated by solar energy and 35 percent of Minnesota retail sales will be met with energy from renewable generating resources.

⁷ See MISO Tariff, Attachment X, Section 3.7.

⁸ Otter Tail's requests has been assigned queue number R1001.

⁹ A portion of the Hoot Lake Solar Project site is within the City of Fergus Falls, with the remainder falling outside the City and is under the jurisdiction of Otter Tail County (for purposes of the EAW). The two jurisdictions determined that the City would have the greatest responsibility for approving the Project and the County passed a resolution on September 22, 2020, in support of the City being the Responsible Governmental Unit (RGU) for purposes of the EAW.

¹⁰ Minn. Stat. § 216B.1691, subd. 2f(a).

As noted in Otter Tail's June 1, 2020 SES Report,¹¹ Otter Tail has been purchasing SRECs to comply with the SES as a bridge until solar energy is added to its resource mix. The unique characteristics of the Hoot Lake Solar Project, including the ability to reuse the Hoot Lake Coal Plant interconnection, result in a cost-effective means of complying with the SES obligation, while also providing Otter Tail's Minnesota customers the benefits of committed, green, low-cost energy.

Otter Tail has acquired sufficient SRECs to comply with the expected 2020 SES requirements and a large portion of the expected 2021 SES requirements for the utility-scale portion of the SES. As shown in the table below, the Hoot Lake Solar Project will allow Otter Tail to fulfill its projected utility-scale SES obligations well into the future.

Table 1
Projected SES Compliance

| | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|--|--------|--------|--------|---------|---------|---------|
| Utility-Scale SES Obligation | 33,160 | 34,945 | 35,855 | 35,123 | 35,126 | 35,079 |
| Beginning SREC Balance | 75,253 | 51,474 | 16,529 | 30,674 | 100,551 | 170,425 |
| SRECs Purchased | 9,381 | | | | | |
| Hoot Lake Solar Project Generation ¹² | 0 | 0 | 50,000 | 105,000 | 105,000 | 105,000 |
| Ending SREC Balance | 51,474 | 16,529 | 30,674 | 100,551 | 170,425 | 240,346 |

Generation from the Hoot Lake Solar Project that is not used for SES compliance will be available to satisfy Otter Tail's Renewable Energy Standard (RES) obligations.¹³ Further, the Hoot Lake Solar Project will contribute to the State's goal that by 2030, 10 percent of all retail electric sales in Minnesota be generated by solar energy.¹⁴ Alternatively, Hoot Lake Solar Project SRECs

¹¹ Docket No. E999/M-20-464.

¹² Assumes Project is online for part of 2022.

¹³ Minn. Stat. § 216B.1691, subd. 2a. Only the output that is not used for SES compliance may be counted towards the RES. See Minn. Stat. § 216B.1691, subd. 2f(g).

¹⁴ Minn. Stat. § 216B.1691, subd. 2f(e).

not needed for SES compliance could be sold to other utilities or others interested in procuring SRECs or Renewable Energy Credits (RECs), with the proceeds of such sales being credited to Minnesota customers.

The Hoot Lake Solar Project also fulfills a SES need identified in Otter Tail's 2016 Integrated Resource Plan.¹⁵ Otter Tail's approved five-year action plan called for the addition of 30 MW of solar generation in order to satisfy the SES.¹⁶ In December, 2019, the Commission directed Otter Tail to complete a competitive-bidding process to procure approximately 30 MW or more of installed solar capacity.¹⁷ The Hoot Lake Solar Project was identified through that process as being the best alternative for customers, as discussed below.

VIII. OTTER TAIL'S INVESTMENT IN THE HOOT LAKE SOLAR PROJECT IS REASONABLE AND ELIGIBLE FOR RRCR RIDER RECOVERY.

The Commission is authorized to approve utility investments made to satisfy the SES.¹⁸ The Commission is further authorized to determine facilities that are not subject to review under Minn. Stat. §§ 216B.2422 (resource planning) or 216B.243 (certificate of need) are eligible for RRCR rider recovery.¹⁹ Based on the factors discussed below, Otter Tail requests the Commission approve Otter Tail's investments in the Hoot Lake Solar Project and determine those investments are eligible for RRCR rider recovery.

A. Selection Process

As discussed above, Otter Tail's approved 2016 Integrated Resource Plan five-year action plan called for the addition of 30 MW of solar generation,²⁰ and Otter Tail was directed to complete a competitive-bidding process to procure approximately 30 MW or more of installed solar

¹⁵ *In the Matter of Otter Tail Power Company's 2017–2031 Integrated Resource Plan*, Docket No. E017/RP-16-386, Order Approving Plan with Modifications and Setting Requirements for Next Resource Plan, , p. 3 (Apr. 26, 2017) (“Otter Tail’s resource plan included... 30 MW of solar ... to comply with Minnesota’s Solar Energy Standard.”) [*hereinafter* 2016 Resource Plan Order].

¹⁶ 2016 Resource Plan Order, Ordering Paragraph 4(b).

¹⁷ *In the Matter of Otter Tail Power Company's 2017–2031 Integrated Resource Plan*, Docket No. E017/RP-16-386, Order Extending Deadline for Filing Resource Plan, Requiring Supplemental Filing, and Completing Competitive Bidding Process, Ordering Paragraph 3 (Dec. 30, 2019) [*hereinafter* 2019 Solar Competitive Bidding Order].

¹⁸ Minn. Stat. § 216B.1645, subd. 1.

¹⁹ Minn. Stat. § 216B.1645, subd. 2a.

²⁰ 2016 Resource Plan Order, Ordering Paragraph 4(b).

capacity.²¹ The Hoot Lake Solar Project was identified as part of that process. Otter Tail's July 1, 2020 Compliance Filing in Docket No. E017/RP-16-386 describes the process Otter Tail followed, the different alternatives evaluated and the ultimate selection of the Hoot Lake Solar Project.

B. Project Costs

Otter Tail estimates the total capital cost of the Hoot Lake Solar Project will be approximately [PROTECTED DATA BEGINS... ..PROTECTED DATA ENDS]. At this time, approximately [PROTECTED DATA BEGINS... ..PROTECTED DATA ENDS] of the total estimated cost of [PROTECTED DATA BEGINS... ..PROTECTED DATA ENDS] are committed. Otter Tail is in the process of evaluating RFP bids for the balance of Project costs.²²

The estimated cost of the Hoot Lake Solar Project is significantly lower than the cost of the 30 MW of solar included in Otter Tail's currently effective five-year action plan. In the 2016 Integrated Resource Plan, the Commission approved a five-year action plan that, among other things, involved the addition of "30 MW of solar in about 2020...."²³ The 30 MW of solar was modeled at a fixed cost of \$80/MWh.²⁴ The levelized cost estimate of the Hoot Lake Solar Project is [PROTECTED DATA BEGINS... ..PROTECTED DATA ENDS], approximately [PROTECTED DATA BEGINS... ..PROTECTED DATA ENDS] of the cost of the resource approved in the 2016 Integrated Resource Plan. As discussed in more detail below, reuse of the interconnection rights associated with the Hoot Lake Coal Plant are an important contributing factor to the cost savings.

C. Savings over Five-Year Action Plan Solar

Otter Tail's current five-year action plan calls for the addition of 30 MW of solar costing \$80/MWh. In the 2019 Solar Competitive Bidding Order, the Commission directed Otter Tail to

²¹ 2019 Solar Competitive Bidding Order, Ordering Paragraph 3.

²² Otter Tail continues to treat the costs of the Hoot Lake Solar Project as PROTECTED DATA because Otter Tail is in the process of accepting RFPs for the balance of the Project costs. Protecting this data ultimately benefits customers so bidders provide their most competitive proposals.

²³ 2016 Resource Plan Order, p. 8

²⁴ See *In the Matter of Otter Tail Power Company's 2017-2031 Resource Plan*, Docket No. E017/RP-16-386, Initial Filing Appendix F, p. 4 (June 1, 2016).

explore projects of 30 MW or greater,²⁵ opening the possibility to the addition of more solar if found to be cost effective. This was an important expansion. As discussed below, while the Hoot Lake Solar Project is larger than the 30 MW of solar envisioned in the 2016 Integrated Resource Plan, overall, it is a more cost-effective resource for Minnesota customers.

The primary value of the 30 MW of solar identified in the 2016 Integrated Resource Plan and the Hoot Lake Solar Project is that both provide clean energy for customers that displaces energy generated by other resources. In order to obtain that energy, customers pay the capital cost of the project. The 30 MW of solar identified in the 2016 Integrated Resource Plan would have cost Minnesota customers approximately \$5.1 million annually.²⁶ The Hoot Lake Solar Project is estimated to cost Minnesota customers **[PROTECTED DATA BEGINS... ..PROTECTED DATA ENDS]** annually.²⁷ In other words Otter Tail's customers will pay less for 49.9 MW from the Hoot Lake Solar project than they would have paid for just 30 MW as was identified in the approved Integrated Resource Plan.

In addition to being less expensive on an annual levelized cost basis than the 30 MW of solar identified in the 2016 Integrated Resource Plan, the Hoot Lake Solar Project results in additional energy savings for customers. Based on estimated hourly production and 2019 MISO day-ahead market prices, the Hoot Lake Solar Project results in approximately **[PROTECTED DATA BEGINS... ..PROTECTED DATA ENDS]** of additional energy savings for customers, as compared to the 30 MW of solar identified in the 2016 Integrated Resource Plan. As shown below, when combined with the lower capital costs, the total savings to Minnesota customers from the Hoot Lake Solar Project are significant.

²⁵ 2019 Competitive Bidding Order, Ordering Paragraph 2.

²⁶ 30 MW x 24.1 percent capacity factor x 8,760 x \$80.

²⁷ 49.9 MW x **[PROTECTED DATA BEGINS... ..PROTECTED DATA ENDS]**.

Table 2
Calculation of Net Annualized Cost

[PROTECTED DATA BEGINS...

... PROTECTED DATA ENDS]

The customer benefits of the Hoot Lake Solar Project are confirmed by Otter Tail's revised resource planning analysis.³⁰ The net present value of revenue requirements (NPVRR) of a resource mix including the Hoot Lake Solar Project is lower than the PVRR of Otter Tail's base case scenario. Further, the NPVRR of the resource mix including the Hoot Lake Solar Project is lower than a resource mix that includes the 30 MW of \$80 / MWh solar identified in the 2016 Integrated Resource Plan. These resource planning-based analyses further demonstrate the reasonableness of Otter Tail's investment in the Hoot Lake Solar Project.

D. Reuse of Hoot Lake Coal Plant Interconnection and Other Facilities

Otter Tail's ability to reuse the interconnection and other facilities of the retiring Hoot Lake Coal Plant is a key factor in delivering these savings to Minnesota customers. Under MISO's tariff, the owner of a generating facility that is being decommissioned has rights for interconnection of a new facility at that same point of interconnection through MISO's generator replacement process.³¹ These rights are extremely important because there is very little excess transmission capacity in MISO-West. Unless a project can utilize an existing interconnection (either generator replacement or surplus capacity at an existing facility), project proponents must incur significant costs to

²⁸ Calculated based on estimated hourly generation and 2019 MISO Minnesota Hub Day-Ahead LMP.

²⁹ Calculated based on estimated hourly generation and 2019 MISO Minnesota Hub Day-Ahead LMP.

³⁰ Otter Tail's revised resource planning analysis will be filed by December 31, 2020, as required by the 2019 Competitive Bidding Order. *See* 2019 Competitive Bidding Order, Order Point 2.

³¹ MISO Tariff Section 3.7 Additional requirements for Generating Facility Replacement Requests, available at <https://cdn.misoenergy.org/Tariff%20-%20As%20Filed%20Version72596.pdf>

upgrade the transmission system. These costs have averaged \$2 million / MW in recent years.³² By utilizing its generator replacement rights, Otter Tail is saving Minnesota customers approximately [PROTECTED DATA BEGINS... ..PROTECTED DATA ENDS] of interconnection costs.³³

In addition to saving customers money, reuse of the Hoot Lake Coal Plant interconnection significantly reduces interconnection risk. MISO's generator replacement process consists of two studies, both of which currently are underway for the Hoot Lake Solar Project. Following these studies, and Otter Tail's approval to proceed, MISO will tender a generator interconnection agreement. MISO's generator replacement process reduces the time significantly to achieve a generator interconnection agreement. Otter Tail is anticipating a generator interconnection agreement for the Hoot Lake Solar Plant in mid-2021.

Finally, Otter Tail anticipates reuse of some of the existing Hoot Lake Coal Plant infrastructure. Much of the land needed for the Hoot Lake Solar Project is already owned by Otter Tail as part of the Hoot Lake Coal Plant site (the remaining land needed has been purchased from adjacent landowners). Further, Otter Tail anticipates bringing the Hoot Lake Solar Plant collector lines directly into the existing Hoot Lake substation avoiding the need to build a new collector substation. This allows Otter Tail, to utilize the existing control house for communication and protection. It is also possible Otter Tail will be able to reuse some existing buildings during the construction process or as part of ongoing operations.

E. Benefits of Owned Generation

The Hoot Lake Solar Project provides Minnesota customers the benefits of owned generation. These benefits come in many forms. Currently, Otter Tail is complying with the SES by purchasing SRECs. This puts customers at risk of fluctuation in market prices. This risk is mitigated through the Hoot Lake Solar Project, which will produce sufficient energy to satisfy Otter Tail's SES obligations well into the future.

The Hoot Lake Solar Project also will protect Otter Tail customers from fluctuations in energy market prices. The Hoot Lake Solar Project will be an on-peak resource, achieving its

³² MISO DPP 2017 February West Area Phase 2 Study , Table 12-17 (July 19, 2019), *available at* https://cdn.misoenergy.org/GI-DPP_2017-FEB-West_Phase2_System_Impact_Report_Public366110.pdf.

³³ Interconnection costs of this magnitude would make a solar project cost prohibitive.

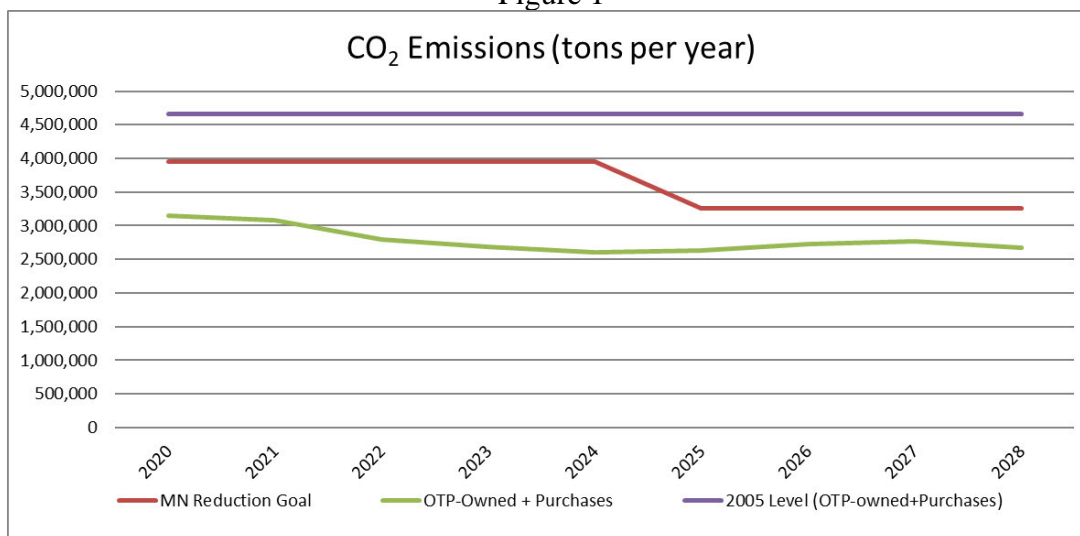
maximum output during the peak hours of the day and months of the year. By generating during these expensive periods, the Hoot Lake Solar Project will offset the some of the most expensive market purchases, again, saving customers money.

F. Emissions

In addition to anticipated cost savings, the Hoot Lake Solar Project will increase the diversity of Otter Tail’s overall resource mix. The Hoot Lake Solar Project will be Otter Tail’s first utility-scale solar resource.³⁴ With the addition of the Hoot Lake Solar Project, Otter Tail’s overall generation mix will be 12.5 percent renewable on a capacity basis and 35 percent of Minnesota retail sales will be met with energy from renewable generating resources.

Otter Tail estimates that the Hoot Lake Solar Project annual generation will equal approximately 105,000 MWh. Assuming the Hoot Lake Solar Project displaces area fossil fuel generation, which has an overall carbon intensity of 2,057.8 pounds of CO₂/MWh, the Hoot Lake Solar Project will offset approximately 108,000 tons of CO₂ annually. Further, once online, Otter Tail is projected to exceed Minnesota’s 2025 greenhouse gas reduction goal.³⁵

Figure 1



The Hoot Lake Solar Project therefore helps Otter Tail satisfy not only its SES obligations, but also the State’s greenhouse gas reduction goals.

³⁴ Otter Tail has two smaller-scale solar projects (Blue Bird and Blue Heron) with a total capacity of 66.6 kW.

³⁵ 2016H.02, subd. 1 (“It is the goal of the state to reduce statewide greenhouse gas emissions across all sectors producing those emissions to a level at least 15 percent below 2005 levels by 2015, to a level at least 30 percent below 2005 levels by 2025....”).

G. Allocation

As discussed above, Otter Tail requests that the Commission authorize its investment in the Hoot Lake Solar Project and deem the Hoot Lake Solar Project eligible for RRCR rider recovery. Otter Tail will separately petition the Commission for authorization to revise RRCR rider rates and begin recovery of Hoot Lake Solar Project costs. In that future filing, Otter Tail will account for the full output of the Project to OTP's Minnesota customers and the full costs of the Project also to OTP's Minnesota customers. Such treatment is consistent with the findings of the 2016 Integrated Resource Plan that all of the output of the 30 MW of solar resource (not just a Minnesota jurisdictional share) was needed for Otter Tail's SES compliance.³⁶ Importantly, a 100 percent Minnesota jurisdictional allocation provides other benefits to Minnesota customers that extend beyond SES compliance.

The Hoot Lake Solar Project will offset market purchases during the most expensive hours of the year. Based on 2019 data, the value of the avoided energy purchases equals approximately \$2.6 million annually. For every 10 percent increase in market prices, Minnesota customers would save an additional \$250,000 per year. With current prices at all-time lows, the Hoot Lake Solar Project provides an important hedge against likely future increases in market prices.

As part of its request for future cost recovery, Otter Tail would propose revisions to its Minnesota Energy Adjustment Rider (EAR) and make contemporaneous fuel clause filings in North Dakota and South Dakota. These filings would ensure Minnesota customers are credited with the full avoided energy market purchases made possible by the Hoot Lake Solar Project. Otter Tail anticipates this would be accomplished by grossing up the energy production credited to Minnesota customers from Otter Tail system-generation in the EAR and by reducing energy credited to North Dakota and South Dakota customers from Otter Tail system-generation by the same amount, resulting in customers in those jurisdictions paying the cost of additional market purchases. While the mechanics differ, Otter Tail's proposal to modify the EAR and North Dakota and South Dakota

³⁶ See *In the Matter of Otter Tail Power Company's 2017–2031 Integrated Resource Plan*, Docket No. E017/RP-16-386, Comments of the Minnesota Department of Commerce, p. 37 (Oct. 5, 2016) (“The Department estimates that 30 MW of solar would result in approximately 41,785 MWh of solar energy; an amount sufficient to meet the Company's SES requirement through 2022.”). See also *In the Matter of Otter Tail Power Company's 2017–2031 Integrated Resource Plan*, Docket No. E017/RP-16-386, Reply Comments of the Minnesota Department of Commerce, p. 4-5 (Dec. 5, 2016).

fuel clauses is like the approach that has been used by Xcel Energy for jurisdictional allocations for its Community Solar Gardens.

Minnesota customers also would benefit from additional value that may be realized for the Hoot Lake Solar Project. Otter Tail will produce more SRECs than are currently required for the SRES. This will permit Otter Tail to use these additional SRECs for other purposes. For example, Otter Tail could sell excess SRECs to other utilities (or non-utility purchasers), and all proceeds will be credited to Minnesota customers. Based on Otter Tail's recent SREC transactions, this could offset close to \$100,000 of the annual Hoot Lake Solar Project costs.

The Hoot Lake Solar Project also will be accredited for capacity, and this will permit Otter Tail to sell that capacity for the benefit of Minnesota customers.³⁷ Proceeds from any capacity sales will be credited to Minnesota customers. This will further reduce the costs of the Hoot Lake Solar Project.

A 100 percent Minnesota allocation also is justified based on Minnesota resource planning. Otter Tail's revised resource planning analysis for Otter Tail's system (using a Minnesota base case analysis including Commission-established externality costs) indicates that 100 MW of solar would be cost-justified for Otter Tail's total system at or below **[PROTECTED DATA BEGINS...**

...PROTECTED DATA ENDS]. Under a traditional allocation, Otter Tail would construct a 100 MW resource and its Minnesota customers would be responsible for approximately 56 percent of the costs. Thus, Otter Tail's proposal for a 49.9 MW Minnesota-only project mimics what would occur under a system-wide resource planning analysis using Minnesota's planning criteria.³⁸

Otter Tail acknowledges this proposal is a new approach to jurisdictional cost (and output) allocation, although resolution of this issue is not unique to the Hoot Lake Solar Project (i.e. it would appear to be necessary for any solar addition Otter Tail would propose at this time). Under

³⁷ For additional clarification, the Commission directed Otter Tail to procure at least 30 MW of solar to satisfy the SES, not to fulfill a capacity need. 2016 Resource Plan Order, Ordering Paragraph 4(b). And, while the Hoot Lake Solar Project will provide some incidental accredited capacity, the purpose and economic justification for this resource addition is the energy produced and satisfaction of the SES. Also, the amount of accredited capacity from the facility is expected diminish over time, as solar penetration in the region grows and has an impact on the timing of MISO's peak for resource adequacy purposes. The current total accredited capacity is estimated at approximately 25 MW at the time of installation. Otter Tail will continue planning for resource additions on a system-wide basis and will include Hoot Lake Solar as one of its existing system-wide capacity resources to the extent of its accreditation. In the event of any wholesale sale of capacity from the project, Minnesota customers will be credited for the proceeds from the sale.

³⁸ As discussed below, the jurisdictions in which Otter Tail provides service evaluate resource additions under different policies. A 100 MW solar resource currently is not justified under North Dakota analytical framework.

current market conditions, the jurisdictions where Otter Tail provides retail service have fundamentally different views on the value of solar energy, and therefore an allocation of this kind would be required for any solar project Otter Tail might consider. Therefore, Otter Tail's alternative to an allocation of the output and costs to Minnesota is to not add a solar resource at all, or at least not to do so at this time. We believe the Hoot Lake Plant site benefits, and the approach presented in this Petition provides an opportunity for Otter Tail's Minnesota customers to get the advantages of the full output from a project that is evaluated very favorably under Minnesota's resource planning criteria and that fulfills Minnesota's priorities. It also provides a reasonable resolution of the policy differences across the states in which Otter Tail provides retail electric service.

H. ITC Risk

Solar generating facilities qualify for the solar Investment Tax Credit (ITC).³⁹ Projects that begin construction in 2020 are eligible for a 26 percent ITC.⁴⁰ The facility must be placed in service by December 31, 2023.⁴¹ Otter Tail has taken steps to ensure the Hoot Lake Solar Project will qualify for the full 26 percent ITC, which is a significant factor in the economic viability of the project.

The IRS has established rules to determine when construction begins for PTC eligibility. Under those rules, a project is under construction if (1) physical work of a significant nature has begun (Physical Work Test); or, (2) by demonstrating that 5 percent or more of the total cost of such facility or energy property has been incurred (Safe Harbor).⁴² Otter Tail has procured **[PROTECTED DATA BEGINS... ...PROTECTED DATA ENDS]** for the Hoot Lake Solar Project, thereby satisfying the Safe Harbor test. Otter Tail also plans to include contractual provisions in its agreement with the primary construction contractor to mitigate risk of ineligibility due to construction delays. Thus, Otter Tail has reasonably managed the ITC risk associated with the Project.

³⁹ 26 U.S.C. § 48.

⁴⁰ 26 U.S.C. § 48 (a)(6)(A)(i).

⁴¹ 26 U.S.C. § 48 (a)(6)(B).

⁴² IRS Notice 2016-31, available at <https://www.irs.gov/pub/irs-drop/n-16-31.pdf>.

I. Project Timing

Otter Tail is in the process of evaluating RFP bids for the balance of Project costs, including construction. Some of those bids include schedules for 2021 construction., with the Project going into service in late 2021 or mid-2022. In order to meet this schedule, Otter Tail would need the Commission's approval of the Hoot Lake Solar Project by April 30, 2021.

IX. CONCLUSION

Based on the foregoing, Otter Tail respectfully requests the Commission:

- (i) approve Otter Tail's investment in the Hoot Lake Solar Project;
- (ii) determine that the Hoot Lake Solar Project qualifies for application towards Otter Tail's SES, RES and REO obligations; and
- (iii) authorize future cost recovery of the Hoot Lake Solar Project through the RRCR rider, with a full allocation to Minnesota of the output and costs, subject to Commission review and approval of specific costs to be presented by Otter Tail in a future petition under Minn. Stat. §216B.1645, subd. 2a.

Dated: November 25, 2020

Respectfully Submitted,

OTTER TAIL POWER COMPANY

By: /s/ CARY STEPHENSON
Cary Stephenson
Associate General Counsel
Otter Tail Power Company
215 South Cascade Street
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218-739-8956

CERTIFICATE OF SERVICE

**RE: In the Matter of Otter Tail Power Company's Petition for Approval of the Hoot Lake Solar Project
Docket No. E017/M-20-**

I, Carly Haiby, hereby certify that I have this day served a copy of the following, or a summary thereof, on Will Seuffert 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
Initial Filing**

Dated this **25th** day of **November, 2020**.

/s/ CARLY HAIBY
Carly Haiby, Regulatory Filing Coordinator
Otter Tail Power Company
215 South Cascade Street
Fergus Falls MN 56537
(218) 739-8472

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| | | | | | | | |

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