

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger
Nancy Lange
Dan Lipschultz
Matthew Schuerger
John A. Tuma

Chair
Commissioner
Commissioner
Commissioner
Commissioner

In the Matter of the Petition of
Minnesota Power for Approval of
Investments and Expenditures in the Camp
Ripley Solar Project for Recovery through
Minnesota Power's Renewable Resources
Rider under Minn. Stat. § 216B.1645 and
Related Tariff Modifications

ISSUE DATE: February 24, 2016

DOCKET NO. E-015/M-15-773

ORDER GRANTING PETITION IN PART
AND REQUIRING REEVALUATION OF
SOLAR ENERGY ADJUSTMENT RIDER

PROCEDURAL HISTORY

On August 21, 2015, Minnesota Power (the Company) filed a petition for approval of investments, expenditures and costs for a proposed 10 MW solar photovoltaic project at the Minnesota Army National Guard's Camp Ripley facility near Little Falls (the Camp Ripley Project). The Company also requested approval for cost-allocation changes consistent with the Minnesota Solar Energy Standard ("SES") in Minn. Stat. § 216B.1691, subd. 2f.

On October 14, 2015, the Minnesota Department of Commerce – Division of Energy Resources (the Department) and the Office of the Attorney General – Residential Utilities and Antitrust Division (the OAG) filed comments recommending that the Commission take a different approach to project cost allocation than the Company initially proposed. The Department also expressed concern that the project's land cost may be above a fair value.

On October 23, 2015, the Company filed reply comments, providing additional supporting information and responding to the Department and OAG comments. The OAG filed reply comments reiterating its proposal to modify the Company's proposed cost-allocation calculation.

Also on October 23, Fresh Energy filed reply comments supporting aspects of the Department's and OAG's recommendations. Fresh Energy supported the Department's recommendation concerning the timing for further evaluating the cost-recovery issue, and supported the OAG's recommendation to employ the Value of Solar methodology in the cost-recovery calculation.

Minnesota Power and the Department filed responses to the reply comments, providing reasons they believe the Value of Solar methodology might be inappropriate for the cost-recovery calculation in this case.

On December 8, 2015, Minnesota Power filed an "Independent Evaluation Report" of the Camp Ripley Project, prepared by Sedway Consulting, Inc.

On January 28, 2016, the Commission met to consider the matter.

FINDINGS AND CONCLUSIONS

A. Summary of Commission Action

Because Minnesota Power's investments and expenditures for the Camp Ripley Project will facilitate compliance with Minnesota's renewable energy standards, the Commission will approve the investments and expenditures for the Camp Ripley Project under Minn. Stat. § 216B.1645, subd. 1, subject to adjustment, limitation, and further requirements as set forth below.

The Commission will approve the Company's proposed rate design structure, but will require Minnesota Power to propose an alternative calculation of the Solar Energy Adjustment (SEA) Rider.

B. The Proposed Camp Ripley Solar Project

The Camp Ripley Project is a proposed 10 MW solar photovoltaic (PV) facility to be constructed on 80 acres of the Camp Ripley National Guard facility in Morrison County. Minnesota Power expects the project to cost approximately \$30,000,000. According to the Minnesota National Guard, the project would substantially contribute toward Camp Ripley's goal to be a "Net Zero" energy consumer—to generate on-site, each year, as much energy as the facility uses.

Minnesota Power is pursuing the Camp Ripley Project in part to satisfy the requirements of Minnesota's Solar Energy Standard (SES).¹ The SES requires, among other things, that "by the end of 2020, at least 1.5 percent of [a] utility's total retail electric sales to retail customers in Minnesota is generated by solar energy." According to the Company, the project would provide 30% of the solar energy required for it to comply with the 2020 SES.

The Company's petition describes anticipated project costs, financing, and a proposed cost recovery method. Project costs include capital costs for construction and distribution upgrades, a land-lease arrangement with Camp Ripley (which involves annual lease payments and the transfer of renewable energy credits), interconnection costs, and operations and maintenance. The details of the land-lease arrangement and the proposed cost recovery calculations drew scrutiny from commenting parties and are discussed below in greater detail.

C. Positions of the Parties

Challenges to the Company's proposal can be sorted into two broad categories: project costs and cost recovery. Because the Commission will address costs and cost recovery as separate issues, it organizes its summary of comments and contested issues into these categories as well.

1. Project Costs: Land Lease

Minnesota Power proposed to enter into a land-lease arrangement with the Minnesota National Guard to obtain the land necessary for the project. According to the Company, it would lease land at Camp Ripley for 35 years for a total of \$1.6 million plus a 35-year agreement to transfer renewable

¹ Minn. Stat. § 216B.1691, subd. 2f.

energy credits to the Minnesota National Guard.² Minnesota Power stated that it appraised the land value by comparing it to nearby land parcels, and by considering the additional factors of property taxes, security, permitting, and a premium for the land's availability on a timely basis.

The Department stated that it believes the cost of the proposed land lease is above market value. However, the Department concluded that the apparent premium that the Company agreed to was "not material enough to impact the Department's recommendation to approve the Project." At the Commission meeting, the Department stated that it accepted the Company's appraisal method at face value and did not independently appraise the land.

In its reply comments and at the Commission meeting, Minnesota Power maintained that the proposed land valuation is fair.

2. Cost Recovery: Accounting for and Allocating Costs

Complicating cost recovery for the project, Minn. Stat. § 216B.1691, subd 2f(d), excludes recovery of SES costs from certain customers. Under the statute,

[f]or the purposes of calculating the total retail electric sales of a public utility under this subdivision, there shall be excluded retail electric sales to customers that are:

- (1) an iron mining extraction and processing facility, including a scam mining facility as defined in Minnesota Rules, part 6130.0100, subpart 16; or
- (2) a paper mill, wood products manufacturer, sawmill, or oriented strand board manufacturer.

Those customers may not have included in the rates charged to them by the public utility any costs of satisfying the solar standard specified by this subdivision.³

To address the statutory exclusion, the Company proposed to recover project costs through a new solar renewable factor adjustment and a new Solar Energy Adjustment (SEA) Rider. The Company proposed only recovering SEA-approved costs from "solar-paying" customers—customers not exempt from recovery under Minn. Stat. § 216B.1691, subd 2f(d). It stated that future solar projects could be included in the new SEA rider.

The Company estimated two years of rate impacts on solar-paying customers by applying a new methodology for calculating SEA Rider adjustments. Using its proposed methodology, the Company calculated that the average solar-paying residential customer would pay \$0.48 per

² Minnesota Power will retain the renewable energy credits (RECs) generated by the solar project to satisfy the state's Renewable Energy Standard (RES) under Minn. Stat. § 216B.1691. It has agreed to provide the Minnesota National Guard with RECs generated by purchasing power from hydroelectric generation in Manitoba. The hydroelectric RECs do not satisfy the Company's objectives under the state's RES, but they suit the Minnesota National Guard's renewable energy goals.

³ Minn. Stat. § 216B.1691, subd. 2f(d).

month more in the first year, and \$0.46 per month in the second year (net of fuel cost benefits from the project passed to those same customers).

The Department, the OAG, and Fresh Energy each challenged aspects of the Company's proposed cost recovery methodology.

a. The Need for More Precise Cost Allocation

The Department recommended that the Commission approve the proposed new SEA rider mechanism to ensure that both costs and benefits are appropriately assigned to solar-paying customers. However, the Department recommended that the Commission require the Company to file an alternative calculation for its SEA rider that included "an on-peak energy offset or another methodology that would better reflect the actual avoided energy costs" from new solar generation.

The Department also observed that the Company's SEA calculation only nets energy costs and benefits, even though the project would also provide capacity benefits. The Department recommended that the methodology for allocating net capacity costs among solar-paying and solar-exempt customers be deferred to the Company's next rate case.

b. Application of Value of Solar Components

The OAG and Fresh Energy argued that the Company's proposed methodology does not adequately account for all of the benefits of solar generation. They recommended that the Company be required to revise its methodology to fully recognize benefits and credit them to solar-paying customers.

Both the OAG and Fresh Energy recommended that the Company could achieve this by basing its calculation on the Commission's Distributed Solar Value Methodology (Value of Solar or VOS Methodology).⁴ They argued that the Commission's VOS Methodology recognized eight ways that distributed solar generation could produce benefits:

1. Avoided Fuel Cost
2. Avoided Plant Operation and Maintenance – Fixed
3. Avoided Plant Operation and Maintenance – Variable
4. Avoided Generation Capacity Cost
5. Avoided Reserve Capacity Cost
6. Avoided Transmission Capacity Cost
7. Avoided Distribution Capacity Cost
8. Avoided Environmental Cost⁵

⁴ *In the Matter of Establishing a Distributed Solar Value Methodology under Minn. Stat. § 216B.164, subd. 10(e) and (f)*, Docket E-999/M-14-65, Order Approving Distributed Solar Value Methodology (April 1, 2014).

⁵ *Id.* at 7-10.

Both the OAG and Fresh Energy recommended that the Commission evaluate the Company's cost recovery calculations with these benefit components in mind. The Department maintained that it preferred its own recommended approach, stating that the OAG and Fresh Energy recommendation could have unintended consequences.

The Company agreed to explore an alternative methodology to appropriately credit solar-paying customers in light of time-of-day generation and usage considerations. And, although it had argued that the VOS Methodology would be inappropriate for calculating its SEA rider, at the Commission meeting the Company stated that it would be willing to examine applying the eight VOS Methodology components.

D. Commission Action

Having reviewed the record and having heard the arguments of the parties, the Commission will approve the project subject to the following limitations and additional requirements.

1. Project Approval

The Commission concludes that the Camp Ripley Project will help Minnesota Power comply with the state's SES under Minn. Stat. § 216B.1691, subd. 2f. The proposed project will contribute to the Company's efforts to produce enough solar energy to constitute at least 1.5 percent of its total retail electric sales to retail customers in Minnesota. The Commission will approve recovery of project investments and expenditures under Minn. Stat. § 216B.1645, subd. 1.

However, the Commission's approval of the project costs is subject to limitation and adjustment. The Commission shares the Department's concern about the market value of the project's land. The record lacks adequate evidence to confirm that the proposed value is, in fact, reasonable. The Commission believes that an independent land-value appraisal is needed to evaluate whether the agreed land cost is reasonable.

The Commission will therefore require Minnesota Power to obtain an independent appraisal of the land and to file that appraisal with the Commission. The Commission will then consider whether an adjustment to the recovery-approved costs is necessary.

Minnesota Power's approved recovery is also limited to actual, reasonable, and prudently incurred project costs, and is not to exceed \$30 million. This limitation, based on the Company's initial project estimates and agreed to by the Company, is common in requests for rider recovery. It ensures that if project costs exceed initial estimates, the Commission will have an opportunity for a more detailed review before the Company may recover additional, unanticipated costs.

Similarly, the Commission will expressly limit approval to project elements included in the Company's request, and exclude potential future phases, agreements, or memoranda of understanding, between Minnesota Power and the Minnesota National Guard.

2. Cost Recovery

The Commission will approve the broad structure of the Company's rate design proposal. Specifically, the Commission will approve the proposed new Solar Energy Adjustment Rider and solar renewable factor. The Minn. Stat. § 216B.1691, subd 2f(d), requirement to exempt certain

customers from Solar Energy Standard costs warrants a new method for accounting for SES project costs and benefits. The Company's proposal to separate recovery of the solar projects from other renewables is reasonable.

However, the Commission agrees that the Company's proposed method for calculating the adjustment does not adequately account for solar benefits. The Commission will require the Company to propose a revised methodology to ensure that the calculation methodology will compute a value appropriate for inclusion in the Company's SEA Rider.

In its new proposal, the Company will include a method that better reflects actual avoided energy costs due to SES additions, as recommended by the Department.

The Company will also assess applicability of the VOS Methodology components. These components account for the value derived from solar PV energy and its delivery, generation capacity, transmission capacity, transmission and distribution line losses, and environmental value. Analysis of the components' application to the Company's SEA calculation method will inform whether the new method adequately calculates and allocates a reasonable recovery for SES projects.

To further aid the Commission in evaluating the Company's implementation of Minn. Stat. § 216B.1691, subd. 2f(d), Minnesota Power will be required to include relevant information in its Solar Energy Standard annual status report, including the costs it has recovered from solar-paying customers instead of solar-exempt customers.

3. Additional Requirements

The financing arrangement gives the bank ownership of the solar panels, and Minnesota Power will lease them for a period of years. At the expiration of that period, Minnesota Power can either purchase the equipment or continue to lease it for an additional 24 months. The Company currently plans to purchase the equipment when the option is triggered.

The Commission will require Minnesota Power to file a petition at least one year prior to either exercising or declining the purchase option, explaining and requesting Commission authorization of the Company's proposed choice.

Minnesota Power requested to itemize the solar renewable factor and the SEA on customer bills. The Commission will approve that request because it serves the goals of transparency and customer awareness of this newly approved rider.

Finally, the Commission will remind Minnesota Power of its obligation to use an open, competitive process, including consideration of numerous locations for future acquisitions of solar generation. This project represents a unique opportunity for both Camp Ripley and Minnesota Power; in order to deliver the benefit that Camp Ripley wants to achieve, the location of the project is constrained. But ordinary competitive processes to choose project sites help reduce costs, and will be expected in future solar projects.

ORDER

1. The Commission finds that Minnesota Power's investments and expenditures for the Camp Ripley Project will facilitate Minnesota Power's compliance with the renewable energy standards under Minn. Stat. § 216B.1691. The Commission approves the investments and expenditures for the Camp Ripley Project under Minn. Stat. § 216B.1645, subd. 1.
2. Approved Camp Ripley Project investments and expenditures are subject to further adjustment by the Commission.
 - a. Minnesota Power shall obtain an independent property appraisal for the leased land as evidence of the value appropriate for recovery from ratepayers of the proposed land lease agreement. The appraisal shall be done to the standards the Department of Natural Resources uses for valuing easements and property purchases.
 - b. Within 60 days of the date of this order, Minnesota Power shall file the independent appraisal with the Commission and the Commission will determine if the total approved recovery amount for the project should be adjusted for a different land lease payment.
3. Minnesota Power is authorized to recover investments and expenditures in the Camp Ripley Project through its renewable rider based on the actual, reasonable, and prudently incurred project costs, not to exceed \$30 million.
4. Minnesota Power shall, in addition to demonstrating the prudence of the actual costs of the project as part of its rider cost recovery filings, demonstrate that all aspects of project costs are least-cost and that the Company has applied all possible cost saving methods to reduce the overall cost of the project.
5. Approval of the project is limited to the project elements for which Minnesota Power has requested recovery in this docket, and is not precedent for, and does not determine how, the Commission will treat cost recovery and/or cost allocation of potential future phases, agreements, or memoranda of understanding, between Minnesota Power and the Minnesota National Guard.
6. The Company shall:
 - a. add a new Rider for Solar Energy Adjustment (SEA Rider) in conjunction with the Company's existing Rider for Fuel and Purchased Energy Adjustment (FPE Rider), and to adjust its existing FPE Rider to exclude solar costs and energy;
 - b. add a solar renewable factor as part of the Company's renewable resources rider.

7. Within 60 days of the date of this order, Minnesota Power shall submit a proposed alternative calculation of the SEA Rider. The proposal shall include, at a minimum:
 - a. an on-peak energy offset or another method that would better reflect the actual avoided energy costs due to solar additions, and
 - b. an analysis of the applicability of the VOS Methodology components.
8. Minnesota Power shall itemize on customer bills the Solar Renewable Factor and the Solar Energy Adjustment.
9. Minnesota Power shall file a petition at least one year prior to either exercising or declining the Camp Ripley Project's financing purchase option, explaining and requesting Commission authorization of the Company's proposed choice.
10. As part of its next solar resource acquisition and for future acquisitions of solar generation, Minnesota Power shall use an open, competitive process, including consideration of numerous locations.
11. As part of its Solar Energy Standard annual status report, Minnesota Power shall include all relevant information, including but not limited to the total costs that have been apportioned to and recovered from solar-paying (nonexempt) customers under Minn. Stat. § 216B.1691, subd. 2f(d), that would have been recovered from exempt customers.
12. Within 30 days of the date of this order, Minnesota Power shall make any necessary compliance filings reflecting all relevant Commission decisions made in the current docket.
13. This order shall become effective immediately.

BY ORDER OF THE COMMISSION

Daniel P. Wolf
Executive Secretary



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