

Staff Briefing Papers

Meeting Date	September 6, 2018	Agenda Item *1
Company	Minnesota Power	
Docket No.	E015/M-18-401	
	In the Matter of Minnesota Power’s Petition for Approval of the 10 MW Blanchard Solar Power Purchase Agreement	
Issues	Should the Commission approve the 10 MW Blanchard Solar Project PPA as a reasonable and prudent way for the Company to meet its obligations under Minn. Stat. § 216B.1691, subd. 2f.?	
	Should the Commission authorize recovery the PPA costs through Commission-approved methods for solar expenditures?	
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Relevant Documents

Date

Minnesota Power, <i>Petition</i>	June 18, 2018
Department of Commerce, <i>Comments</i>	July 20, 2018
Minnesota Power, <i>Reply Comments</i>	July 31, 2018
Department of Commerce, <i>Response to Reply Comments</i>	August 22, 2018

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The attached materials are work papers of the Commission Staff. They are intended for use by the Public Utilities Commission and are based upon information already in the record unless noted otherwise.

I. Statement of the Issues

Should the Commission approve the 10 MW Blanchard Solar Project PPA as a reasonable and prudent way for the Company to meet its obligations under Minn. Stat. § 216B.1691, subd. 2f.?

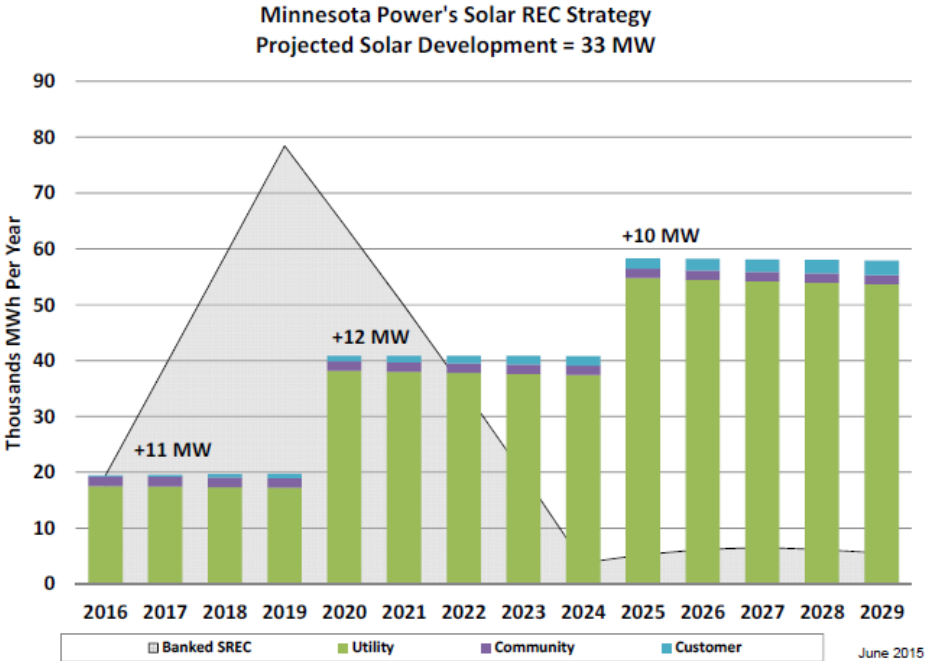
Should the Commission authorize recovery the PPA costs through Commission-approved methods for solar expenditures?

II. Background

In 2013, Minn. Stat. § 216B.1691 (the Minnesota RES) was amended to include a Solar Energy Standard (SES). The SES requires 1.5 percent of a public utility’s retail sales, net of customer exclusions, to be served by solar energy resources by 2020.

In MP’s 2015 Integrated Resource Plan (IRP),¹ the Company approximated it would need to add roughly 33 MW of solar to comply with the 2020 SES requirements. MP presented a “three pillar” solar strategy to include utility, community, and customer solar applications, which was depicted in Figure 2 of Appendix H of the IRP, shown below. The first phase of solar generation (+11 MW) consisted of the 10 MW Camp Ripley Solar Project and a 1 MW community solar garden array. The instant petition is the Company’s next phase: a power purchase agreement (PPA) with Cypress Creek Renewables to purchase energy from the 10 MW Blanchard Solar Project. Blanchard is scheduled to be online by July 1, 2020.²

Figure 2: Minnesota Power’s Solar Energy Standard Outlook



¹ In the Matter of Minn. Power’s Application for Approval of its 2015–2029 Res. Plan, Docket No. E015/RP-15-690, 2015 Integrated Resource Plan, Appendix H: Renewable Energy (Sept. 1, 2015).

² See Section 4.4 of the PPA.

The Commission approved MP's IRP with modifications on July 18, 2016. The Commission's Order required that "Minnesota Power shall acquire solar units of 11 MW by 2016, 12 MW by 2020, and 10 MW by 2025 to meet its SES obligations."³

However, in addition, the Commission found that "up to 100 MW of solar by 2022 is likely an economic resource for Minnesota Power's system."⁴ This finding was based on the Department's Strategist modeling, which showed that at least one 50 MW solar unit was often selected and two 50 MW solar units were sometimes selected.

The Commission also stated in its order that the cost of solar in the IRP could be overstated,⁵ and the Commission required a competitive bidding process be initiated to receive actual market prices that would be used to determine the optimal level of MP's solar procurement:

The market for solar generation is still evolving; however, under the Department's modeling, when solar was priced at the median or lower levels—a range of \$80 to \$100 per megawatt hour (MWh)—the model tended to select 100 MW or more of solar in addition to the amount needed for SES compliance. Given that the Commission recently approved another utility's 187 MW solar portfolio with a levelized price of \$73.20 per MWh,⁶ a range of \$80-100 per MWh may overstate the cost of solar generation.

For these reasons, the Commission finds that up to 100 MW of solar by 2022 is likely an economic resource for Minnesota Power's system and will require that the Company account for this finding in any competitive acquisition process.⁷

As stated above, on August 4, 2016, MP initiated a request for proposals (RFP) of solar resources. The solar RFP solicited proposals for up to 300 MW of solar power, reflecting the Commission's "up to 100 MW of solar by 2022" finding in the IRP.

The Company ultimately decided not to pursue solar in the amount identified in the Commission's order, instead selecting only the 10 MW Blanchard Solar Project bid into that RFP process. MP's reasoning for choosing only 10 MW of solar will be discussed in later sections of the briefing paper, but as a preliminary matter, staff will provide some context about the Company's broader resource acquisition strategy.

³ 2016 IRP Order, at 15, ordering paragraph 10 (July 18, 2016).

⁴ 2016 IRP Order, at 15, ordering paragraph 11 (July 18, 2016).

⁵ MP's 2015 IRP base case assumption for a solar unit was designated as trade secret. However, MP assumed in the sensitivity analysis generic PPAs with a levelized cost increasing in \$5/MWh increments from \$75/MWh to \$90/MWh. The Department assumed solar units had a price of \$100 per MWh for 20 years in 2019, with no change thereafter, and contingency bands of +/- \$10/MWh and +/- \$20/MWh.

⁶ *In the Matter of Xcel Energy's Petition for Approval of a Solar Portfolio to Meet Initial Solar Energy Standard*, Docket No. E-002/M-14-162, Order Approving Solar Portfolio, at 3 (March 24, 2015).

⁷ 2016 IRP Order, at 10-11 (July 18, 2016).

MP's intention to execute the Blanchard PPA was included as part of the Company's July 28, 2017 Energy**Forward** Resource Package (EFRP). The EFRP petition was a combined portfolio of 250 MW of wind, 10 MW of solar, and approximately 250 MW of natural gas, all designed as an integrated package. However, in the Commission's September 19, 2017 *Order Referring Gas Plant for Contested Case Proceedings, and Notice and Order for Hearings*,⁸ the Company was directed to refile the solar PPA separately, which became the Blanchard petition, because the wind and solar were approved in the IRP whereas the gas plant was not. Therefore, MP's restriction on the amount of solar it would procure was probably influenced to some extent by the remaining components of the Company's EFRP.

III. MP Petition

i. Project Description

The 10 MW Blanchard Solar Project (Blanchard) will be located near Royalton in Morrison County, in central Minnesota. The site is located in the southern part of MP's service territory, which has a strong solar profile (expected 20% capacity factor). When fully operational by mid-2020, Blanchard will add approximately 18,000 MWh of renewable energy and 5 MW of MISO accredited capacity per year.⁹

Blanchard will be connected directly to MP's 34.5 kV distribution system. Cypress Creek is required to apply for and use commercially-reasonable efforts to obtain all necessary interconnection services. Because Blanchard will be handled through MP's interconnection procedures, the distribution interconnection carries less of a delay risk compared to a MISO transmission interconnection. Cypress Creek Renewables has applied for interconnection, and system upgrades and associated cost estimates, if any, will be identified when the interconnection studies are completed in July 2018.^{10,11} Other development milestones are listed in the table below:¹²

Major Milestone	Results Seller Must Achieve
6/30/2017	Site Control Agreement Executed
6/30/2019	Conditional Use Permit / Interim Use Permit Received
6/30/2019	Interconnection Agreement Executed
12/15/2019	Issuance of Full Notice to Proceed to Contractor
5/15/2020	Mechanical Completion
6/30/2020	Commercial Operation Date

⁸ Docket Nos. E-015/AI-17-568 and E-015/RP-15-690.

⁹ As of the 2017/2018 MISO Planning Year, new solar resources in MISO receive a 50% capacity credit.

¹⁰ Petition, at 21.

¹¹ Staff note: MP filed its Petition in June 2018, before completion of the interconnection studies. MP refers to an impact study in response to PUC Information Request No. 5, which was developed as part of MP's distribution generation interconnection process, but MP did not include any cost estimates of interconnection.

¹² Petition, Appendix B, at 61.

ii. RFP Process / Order Compliance

Pursuant to Order Points 10 and 11 of the Commission's July 18, 2016 IRP Order, MP issued an RFP on August 4, 2016, seeking power supply proposals for up to 300 MW of utility-scale solar generation that qualifies under the SES. MP sought proposals that maximized the benefits from the federal Investment Tax Credit (ITC), and in addition, required that offers be for capacity that is accreditable under current MISO resource adequacy rules in MISO Local Resource Zone 1. Further, MP required that bids have an initial term of at least 20 years.

MP received a robust RFP response, with proposals for 83 projects from 26 bidders, totaling approximately 3,400 MW of nameplate capacity. MP also submitted proposals for two self-build projects. Sedway Consulting (Sedway), as an independent evaluator, monitored the RFP process and evaluated the proposals received.

Sedway evaluated bids by grouping them into three size groups: 25 MW or less, 26-74 MW, and 75 MW or greater. MP determined that pursuing a 10 MW project would best serve customer needs, so the top-ranked project counterparties from the 25 MW or less group were shortlisted and given the opportunity to resubmit bids for a 10 MW project. Sedway concurred with MP's decisions to include Blanchard among the shortlisted projects, select Blanchard, and execute the PPA.¹³

MP solicited bids for larger-sized projects and contemplated adding solar in an amount beyond what is required by the SES; however, the Company's analysis concluded that utility-scale solar is substantially more expensive than wind and does not provide the same capacity benefits, since MP's system peaks in the evening hours of winter.¹⁴

MP further explained that, while the timing of the Project's energy production is fairly well-matched with customer demand in the summer, this is not the case in the winter season. In the winter, it is possible to have no solar generation during the daily peak demand period because customer demand for energy is highest in the evening hours when the sun is not shining. This variability of generation contributes to a lower accredited capacity value for a solar project for the purposes of demonstrating resource adequacy.¹⁵

iii. Resource Planning Analysis

As noted above, the 10 MW Blanchard Project is anticipated to generate approximately 18,000 MWh per year. Figure 5 of the Petition, below, shows that Blanchard largely displaces market energy and thermal generation. Over the first 15 years of the Project, on average, Blanchard displaces a mix of approximately 5 GWh of market purchases and 8 GWh of existing thermal generation each year:¹⁶

¹³ Petition, at 14.

¹⁴ Petition, at 2.

¹⁵ Petition, at 11.

¹⁶ Petition, at 17.

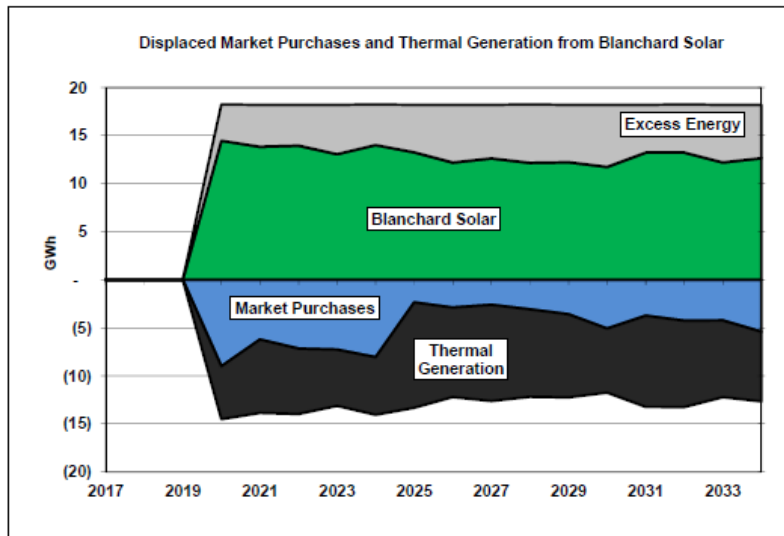


FIGURE 5: ENERGY DISPLACED BY THE BLANCHARD PROJECT

To evaluate the cost impact of the Blanchard Project, MP developed and ran ten Strategist futures with up to 30 sensitivities each, for a total of 241 cases. According to the Company’s modeling results, adding Blanchard is likely to result in a small increase in power supply costs for solar-paying customers over the planning period evaluated (2017-2034).¹⁷ The results ranged from an increase of \$1.8 million to a decrease of \$2.4 million over the study period. Among the ten futures, the average change in power supply costs was \$0.2 million.

Tables 1 and 3 from the Petition, below, compare the underlying assumptions for each future (Table 1), as well as the change in power supply costs by adding Blanchard under each future (Table 3):

TABLE 1: COMPARISON OF KEY ASSUMPTIONS BY FUTURE

Futures	Strategist Case Name	Resource Adequacy Season	CO ₂ Regulation Penalty	Mid-Environmental Externality Values	Turn Energy Market Off	Excess Energy Sold Into Wholesale Market
Future 1	C1SR	Summer	No	No	No	Yes
Future 2	C2SR	Summer	No	No	No	No
Future 3	C3SR	Summer	Yes	No	No	Yes
Future 4	C4SR	Summer	Yes	No	No	No
Future 5	C1WR	Winter	No	No	No	Yes
Future 6	C2WR	Winter	No	No	No	No
Future 7	C3WR	Winter	Yes	No	No	Yes
Future 8	C4WR	Winter	Yes	No	No	No
Future 9	C5S	Summer	Yes	Yes	Yes	No
Future 10	C5W	Winter	Yes	Yes	Yes	No

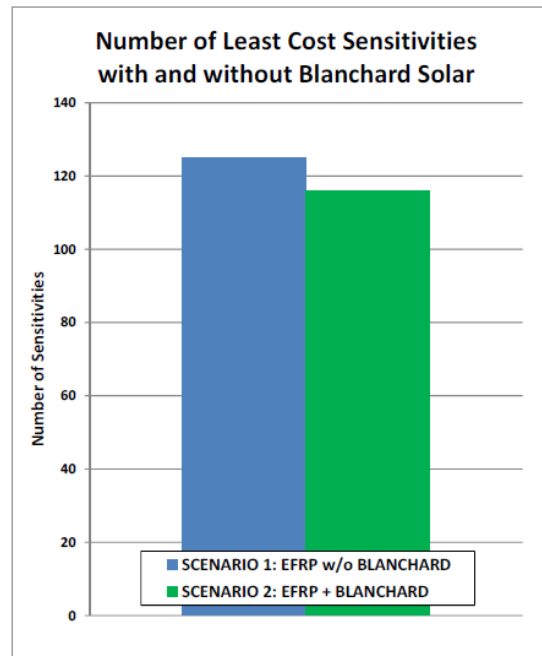
¹⁷ Petition, at 18.

TABLE 3: STRATEGIST POWER SUPPLY COST SUMMARY (\$2017, NPV 2017-2034)

Power Supply Cost Comparison	Power Supply Cost without Blanchard	Change in Cost with Blanchard
	(\$ in Millions, 2017 \$)	
Future 1	\$5,724.9	\$1.7
Future 2	\$5,738.6	\$1.8
Future 3	\$6,516.4	-\$0.1
Future 4	\$6,537.6	\$0.2
Future 5	\$5,726.2	\$1.7
Future 6	\$5,739.9	\$1.8
Future 7	\$6,517.7	-\$0.1
Future 8	\$6,538.9	\$0.2
Future 9	\$7,950.7	-\$2.4
Future 10	\$7,952.0	-\$2.4
Average Increase		\$0.2

As shown in Table 3, each future was run with and without the addition of Blanchard. Figure 1, below, shows the number of sensitivities in which Blanchard yielded a cost increase versus those with a cost decrease. As shown in Figure 1, adding Blanchard reduced power supply costs in 116 cases (48% of the total), while not adding Blanchard was least cost in 125 cases (52% of the total):¹⁸

Figure 1. Number of Least Cost Sensitivities by Scenario



In summary, Blanchard was frequently a cost-effective resource in the Strategist analysis, although in slightly more than half of the cases it increased power supply costs. However, the cost premium is projected to be small, and Blanchard is a competitively-priced solar resource that will help MP to meet its SES obligations. Thus, MP requests that the Commission:

¹⁸ “EFRP” is the EnergyForward Resource Package, which includes Blanchard Solar, Nobles 2 Wind, and the Nemadji Trail Energy Center (NTEC) natural gas facility. All cases assumed Nobles 2 and NTEC.

- Find that the Project is in the public interest;
- Approve the 10 MW Blanchard Solar Project PPA as a reasonable and prudent way for the Company to help meet its obligations under Minn. Stat. § 216B.1691; and
- Authorize Minnesota Power to recover the PPA costs through Commission-approved methods for solar expenditures.

IV. Department Comments

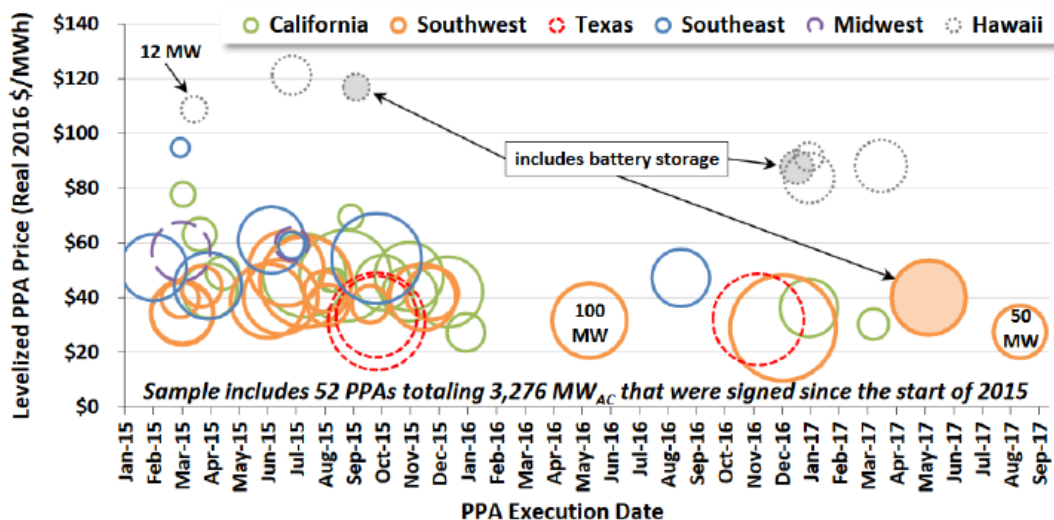
Most of the Department's analysis was focused on specific sections of the PPA, such as the negotiated price and ratepayer protections. The Department also made brief comments on SES eligibility, cost recovery, and MP's preference for smaller-sized solar projects rather than those that could meet the 50-100 MW of solar the Department found was cost-effective in the IRP.

First, staff notes that both MP and the Department were extremely cautious in their public filings with how they applied trade secret designations. In fact, so much information is trade secret that public documents could not imply anything about what the price of the Blanchard PPA is, which even includes descriptive adjectives.¹⁹

i. Price

To be able to address price to some extent, for informational purposes only, the Department included a figure in its comments, Figure 1, shown below, of solar PPA prices executed since 2015. While the Department could not publicly say whether the price of the Blanchard PPA bears any resemblance to the prices shown in Figure 1, the intention was to provide the Commission with a general depiction of the solar market in various regions of the country:

Figure 1. Levelized Prices of Solar PPAs from 2015 – 2017⁵



¹⁹ See Department comments, at 3; MP reply comments, at 3.

The Department concluded that the Blanchard PPA is reasonably priced for the following reasons: there were a significant number of proposals submitted in response to MP's RFP; net cost was one of the main criteria used in shortlisting and selecting project proposals; the selected project offers the lowest net cost among shortlisted proposals; and an independent evaluator was hired to monitor the solicitation and selection of proposals.

ii. PPA Terms / Ratepayer Protections

Regarding the terms of the PPA, the Department discussed four main areas of ratepayer protections: early termination; transfer of ownership; curtailment provisions; and operational failures. The Department concluded that, for the first three areas (early termination, transfer, and curtailment), the risks to ratepayers are minimal, and therefore the Department has no recommended modifications.

On the disputed aspects of the PPA terms—those pertaining to operational issues/failures—staff notes that, like with the discussion of the PPA price, a large portion of the Department's comments (as well as MP's reply) was designated as trade secret information. Because this is such an important issue—in fact, the Department's recommendation to approve or deny the contract is contingent on whether the Commission will remove certain operational provisions—staff suggests the Commission discuss with MP and the Department at the hearing what can and cannot be discussed publicly.

From what is publicly discussed, the Department addressed (1) delay damages and, to some extent, (2) the limitation on and cost of replacement power and solar renewable energy credits (S-RECs). According to Section 4.4 of the PPA, the Facility must be commercially operational by July 1, 2020, and in the event of a delay, MP will be assessed delay damages each day until the Facility becomes operational. Delay damages relates to the second operational issue, which is the cost of replacement power. The Department recommends the Commission require MP to remove a provision in the PPA that establishes a limitation on replacement power costs.²⁰

iii. SES Eligibility / Cost Recovery

Since MP would be procuring solar energy and the associated renewable energy certificates under the PPA, the Department concluded that the energy procured under the PPA would count towards the SES.

Given that Blanchard would count towards MP's SES obligations and qualify for the recovery of expenses pursuant to Minn. Stat. §216B.1645, subd. 2, and since the proposed cost recovery method aligns with prior Commission orders for solar PPAs, the Department recommended the Commission authorize recovery through MP's Fuel and Purchased Energy (FPE) Rider for the costs of the PPA, net of any offsetting revenues from power generated under the PPA being sold in the wholesale market.

²⁰ See Department comments (Trade Secret version), at 4-6 and 9; Department Response to Reply Comments (Trade Secret version), at 2-5.

iv. Consideration of Larger Projects

As discussed previously, MP decided that a 10 MW PPA for solar energy is in the best interest of customers, as opposed to a larger procurement. The Department questioned MP's assertions that no additional solar resources were cost-effective and that solar lacks capacity benefits, as these claims are contrary to the Department's conclusions in its IRP analysis. In addition, 10 MW of new solar is obviously much less than the Commission's finding in the IRP that "up to 100 MW of solar by 2022 is likely an economic resource for Minnesota Power's system."²¹ Thus, the Department recommended further discussion with MP regarding its production modeling of solar energy resources as part of the Company's next IRP proceeding.

Furthermore, the Department observed that the change in power supply costs are significantly impacted by the inclusion or exclusion of environmental externality values. Pursuant to Minn. Stat. § 216B.2422, subd. 3, utilities must use the environmental cost values established by the Commission "when evaluating and selecting resource options in all proceedings before the commission." Of the ten futures MP modeled, only two included environmental externality values,²² and these futures indicated an average decrease in costs of \$2.4 million, compared to an average increase of \$0.9 million for the eight futures that do not include externalities.

Also, while MP calculated that the average cost impact across all ten scenarios was \$0.2 million, the Department noted that the average is more heavily weighted towards futures that exclude environmental externality values. While the cost impact analysis provided in the Petition pertains only to the Blanchard PPA, it demonstrates the impact of environmental externality values on production modeling for solar resources generally.

V. MP Reply

In the Company's reply comments, MP addressed the Department's three concerns with ratepayer protections in the PPA (delay damages, the replacement power provision, and a third concern that was designated trade secret in its entirety). Because such a large share of MP's reply is trade secret, staff refers the Commission to MP's reply comments for its response.

In short, though, MP stated it believes the PPA is reasonable as is, and the Company reiterated its request that the Commission (1) approve the PPA, (2) find Blanchard is a reasonable project to meet the SES, and (3) authorize MP to recover the PPA costs through Commission-approved methods for solar expenditures. To re-state staff's suggestion made earlier, staff requests MP inform the Commission at the hearing what can and cannot be discussed publicly.

VI. Staff Analysis

i. Resource Planning Analysis

²¹ *Order Approving Resource Plan with Modifications* in Docket No. E015/RP-15-690, page 15, order point 11. Filed July 18, 2016.

²² Petition, at 16.

MP refers to the Blanchard Project as “the solar PPA portion of the Company’s overall **EnergyForward** Resource Package.”²³ It is worth noting that in all 241 cases in MP’s Strategist analysis the Company assumed the other two components of that package—Nobles 2 Wind and the Nemadji Trail Energy Center (NTEC)—would be part of MP’s system.²⁴

This means that, as MP evaluated the cost-effectiveness of Blanchard, 250 MW of new wind and 250 MW of new natural gas were fixed inputs, although neither resource has been approved by the Commission. It also means that Blanchard has no capacity value (because it does not offset or defer any capacity resources) and less avoided energy costs than it otherwise would (because Nobles 2 and NTEC are also displacing high-cost generators). Staff does not believe it was inappropriate or unreasonable for MP to assume the remainder of the **EnergyForward** Resource Package when evaluating Blanchard; however, doing so likely reduces the value Blanchard has on MP’s system, at least according to the Strategist modeling.

In effect, given how the model is constructed, Blanchard is essentially an energy-only PPA, which is probably why MP characterized new solar as a resource “substantially more expensive than wind,”²⁵ even though wind and solar, generally speaking, have different value propositions. This also explains, at least partially, why MP chose to limit solar acquisition to 10 MW. According to MP, “[t]he Strategist model does incorporate avoided capacity costs during the periods Minnesota Power is short capacity, but does not include any revenue for excess capacity.”²⁶ With the full **EnergyForward** Resource Package in place, there is no point at which Blanchard is filling a capacity need, and its energy requirements can be met less expensively by resources like new wind.

Finally, even though Blanchard will interconnect to MP’s 34.5 kV distribution system, MP did not identify any distribution system benefits. According to the Company:

Prior to the addition of Blanchard in the Royalton, MN area, there were no issues identified on the distribution system that could be avoided in the future. Therefore, no avoided distribution costs were included in the analysis.

As part Minnesota Power’s distribution generation interconnection process an impact study was performed to identify any upgrades required to interconnect Blanchard Solar and to evaluate system impacts that could benefit or harm the system. The results showed that, depending on customer demand in the region, the Blanchard project could have either a positive or a negative impact on system performance.²⁷

²³ Petition, at 1.

²⁴ MP Response to PUC Information Request No. 2 (July 6, 2018).

²⁵ Petition, at 2.

²⁶ MP Response to PUC Information Request No. 4 (July 6, 2018).

²⁷ MP Response to PUC Information Request No. 5 (July 6, 2018).

Thus, with no avoided capacity costs and no avoided distribution costs, it makes sense why Blanchard has a cost premium under certain scenarios in Strategist. However, as the Department noted, in those scenarios where environmental externalities were taken into account, MP's power supply costs decrease. Blanchard is also frequently cost-effective when the Commission's CO₂ regulatory costs are taken into account, and unlike the externality values, CO₂ regulatory costs are an estimated rate impact.

There could also be financial benefits not fully captured by the Strategist model. For example, the base case wholesale market energy price (without carbon) was assumed to be \$29/MWh in 2017, escalating to \$48/MWh in 2031. This assumption is a forecast of *average* market energy prices. However, MP noted that Blanchard will "protect [solar-paying] customers against the volatility of regional energy markets where price spikes occasionally exceed the expected project cost."²⁸ MP further noted that, at least in the summer, Blanchard's energy production is aligned with periods of peak demand.²⁹

Due to higher locational marginal prices (LMPs) during peak periods, avoiding spot market purchases in the summer could yield much greater savings than a forecast of annual average wholesale energy prices might reveal. (This is another reason why staff believes MP's comparison of the choice between adding more wind versus more solar as an energy resource is not necessarily apples-to-apples.) Comparing the Blanchard PPA price to average spot market prices may discount the value solar energy could have for MP's customers during high-demand peak periods, although obviously there are many hours of the year in which solar is not generating any electricity at all.

Overall, while there are some scenarios in which Blanchard comes at a cost premium, the premium is small. When the Commission's environmental externalities are taken into account, Blanchard produces a net benefit. In addition, Blanchard is consistent with the Company's approved 2015 resource plan, and the Commission found that much more solar could even be cost-effective for MP's system. The project also will enable the Company to meet its obligations under the SES. For these reasons, staff recommends the Commission approve MP's Petition and authorize MP to recovery its costs through Commission-approved methods for solar expenditures.

ii. Department Comments on Larger Solar Projects

The Department recommended further discussion with MP regarding modeling of solar resources as part of the Company's next IRP. The Department was concerned that MP neglected larger solar options that would have been consistent with the Commission's July 18, 2016 IRP Order, and the Department questioned some of MP's claims about solar resources.

Staff does not believe the Commission needs to take any action on this recommendation at this time. Staff is confident that the Department will, as it always does, diligently and thoroughly

²⁸ Petition, at 10.

²⁹ Petition, at 11.

evaluate the reasonableness of all of MP's assumptions during MP's next planning process. To put it simply, in staff's view, the Blanchard petition is about whether Blanchard is in the public interest.

Furthermore, the issue of adding solar above the 10 MW the Company proposed has been developed through testimony and briefs and will be before the Commission when it hears MP's petition for approval of the Nemadji Trail Energy Center gas plant.³⁰ According to the Commission's September 19, 2017 *Order Referring Gas Plant for Contested Case Proceedings*, the Commission's referral required that MP bears the burden of proving, among other things, that the gas plant is superior to alternatives such as additional solar resources.³¹ The Commission can decide in the NTEC case whether a larger amount of solar resources should have been pursued.

iii. Cost Recovery

In the Decision Options section, staff includes two separate options for cost recovery, one from MP and one from the Department. These options are as follows:

- Authorize Minnesota Power to recover the PPA costs through Commission-approved methods for solar expenditures. (*Minnesota Power*)
- Authorize recovery of the costs of the Blanchard Solar PPA through MP's Fuel and Purchased Energy rider. (*Department*)

Staff has no position on which option is superior; however, staff notes that the Department's language is consistent with Minn. Stat. § 216B.1645 (Power Purchase Contract or Investment), subd. 2, which provides that:

Upon petition by a public utility, the commission shall approve or approve as modified a rate schedule providing for the automatic adjustment of charges to recover the expenses or costs approved by the commission.³²

MP's reference to the "Commission-approved methods for solar expenditures" may appear more broad and generic at first blush, but it is actually much more specific. MP's proposed language captures a fairly complicated cost recovery mechanism proposed and approved in the Camp Ripley docket. Among other things, the Commission's Order approving the Camp Ripley Project included the following rate adjustments for cost recovery from solar-paying customers:

- Added 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 adjusted its existing FPE Rider to exclude solar costs and energy; and

³⁰ Docket No. 17-568.

³¹ Docket No. 17-568, Commission order at 6 (September 19, 2017).

³² Minn. Stat. §216B.1645, subd. 2.

- Added a solar renewable factor as part of the Company’s Renewable Resources Rider.³³

Rather than discussing all of the accounting, perhaps more relevant for this proceeding is why the Commission determined new ratemaking treatment was necessary. In short, MP introduced a number of ratemaking proposals³⁴ in its Camp Ripley petition to address the statutory exclusion of SES costs from certain customers; MP proposed only recovering authorized expenditures from “solar-paying” customers—that is, customers not exempt from recovery under Minn. Stat. § 216B.1691, subd 2f(d).

MP applies the same “solar-paying” designation in the Blanchard petition that it did in the Camp Ripley petition. Thus, for cost recovery purposes, MP’s language referencing “Commission-approved methods for solar expenditures” means using the same rate recovery mechanism as it did in Camp Ripley, whereas the Department’s language refers to the more commonly-applied automatic adjustment of charges authorized by Minn. Stat. §216B.1645, subd. 2.

Again, staff takes no position on whose language is better, mostly because, as staff understands it, each option will have the same result (although staff suggests MP confirm this). But it makes sense to use language that refers specifically to a previous Commission order which developed a cost recovery method for MP’s solar resources.

³³ Docket No. 15-773, Commission ordering paragraph 6, at 7 (February 24, 2016).

³⁴ In the Camp Ripley petition, MP requested (1) approval for investments and expenditures related to the Camp Ripley Solar Project; (2) approval to add a Solar Renewable Factor under its Renewable Resources Rider; (3) approval to add a new Rider for Solar Energy Adjustment in conjunction with MP’s FPE Adjustment; (4) approval to adjust the Company’s FPE Rider Adjustment to exclude solar costs and energy; and (5) permission to itemize on customer bills both the Solar Renewable Factor and the Solar Energy Adjustment.

VII. Decision Options

MP Recommendations

1. Approve the 10 MW Blanchard Solar Project PPA as a reasonable and prudent way for the Company to continue to work towards meeting its obligations under Minn. Stat. § 216B.1691. *(Minnesota Power, Staff)*
2. Find that the Project is in the public interest.³⁵ *(Minnesota Power)*
3. Authorize Minnesota Power to recover the PPA costs through Commission-approved methods for solar expenditures. *(Minnesota Power)*

Department Recommendations

4. Approve the PPA contingent on MP removing the provision that establishes a replacement power cost limitation.
5. Authorize recovery of the costs of the Blanchard Solar PPA through MP's Fuel and Purchased Energy rider.
6. Require MP to engage in further discussion with the Department regarding its production modeling of solar resources as part of the Company's next IRP proceeding.

Other Options

7. Deny the petition. *(No party recommends denying the PPA.)*

³⁵ Staff note: The Commission might wish to ask MP why Option #2 is needed in addition to Option #1 (Approve).