

**STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION**

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January 8, 2024

In the Matter of the Petition for Approval of Northern States Power Company, dba Xcel Energy, for Approval of its Community Solar Garden Program

Docket No. E002/M-13-867

FRESH ENERGY COMMENTS

Fresh Energy submits these comments per the Commission’s November 29, 2023 *Notice of Extended Comment Period* regarding Xcel Energy’s (“Xcel” or “the Company”) proposal, requested by the Commission, to transition the bill credit rate and rate schedule for a portion of the community solar gardens (“CSGs”) on the Company’s system that are credited at the Applicable Retail Rate¹ (“ARR”) to the Value of Solar (“VOS”) rate. Fresh Energy strongly supports Commission action to reduce the substantial overall costs of the ARR-era CSGs, as well as to establish cost certainty for those CSGs, both of which would be accomplished by Xcel’s proposal. We also propose two modifications to Xcel’s proposal. First, we recommend not including residential and small business CSG subscribers in the proposal. Second, we recommend the option of using an “adder” to the 2017 VOS rate for the General Service class, which would enable the Commission to accomplish the goals of this proposal while adding more precision to the change in bill credit amount.

¹ For the purposes of these comments, we include the “enhanced” rate in our discussion of the ARR, which includes a \$.02 per kwh increase to the bill credit as compensation for a renewable energy credit, as almost all ARR CSGs chose this enhanced bill credit.

Costs from the CSG Program Are Very Significant and Addressing Those Costs is in the Public Interest

Overall costs of the CSG program are significant, growing, and addressing them is in the public interest. As we stated in our March 30, 2023 comments on 2023 ARR bill credit methodology changes, “Fresh Energy is concerned that [the ARR] bill credit rate paid to CSG subscribers [is] not in the public interest. The total amount of CSG bill credits paid annually by Xcel Minnesota customers is escalating. In 2022, customers paid over \$184 million in bill credits, which Xcel estimates elevates the average residential bill by \$4 per month. In Xcel’s 2023 Fuel Forecast, it estimates that bill credits paid in 2023 will exceed \$286 million – an increase of \$100 million.”² Since then, Xcel has estimated the 2024 aggregate CSG costs to be over \$320 million – nearly another \$50 million increase.³ These aggregate CSG costs are the total cost of all of the CSG program’s bill credits paid to CSG subscribers. CSG subscriber bill credits are paid for by all Xcel ratepayers through the Fuel Clause Adjustment – a component of all electric customers’ bills designed to pass through electric system fuel costs on a per-kWh basis.

Based on these and similar cost concerns raised by parties, the Commission ordered Xcel to file a proposal for switching ARR-era gardens to the appropriate VOS rate.⁴ Xcel filed this instant proposal recommending that the ARR gardens be transitioned to the 2017 VOS rate, starting in year seven of that rate, and continuing on the 2017 VOS rate schedule for the subsequent years of program eligibility.⁵ Xcel estimates that this change would save \$63 million annually based on a

² Fresh Energy, *Initial Comments*, Docket No. 13-867, March 30, 2023 at 2.

³ *Initial Comments*, Department of Commerce, Docket No. E002/AA-23-153, June 29, 2023 Attachment 1, Line 20.

⁴ June 27, 2023 *Order Adopting 2023 ARR and Requiring Additional Filing*, Order Point 4.

⁵ Xcel Energy, *Proposal for Switching ARR-era Community Solar Gardens to Appropriate VOS Rate*, Docket No. 13-867, September 25, 2023 (hereinafter “Xcel Proposal”) at 2.

comparison to current ARR bill credit rates, and those savings extrapolated over the ARR projects’ lifetimes would be over \$1 billion.⁶ Moreover, because the VOS rate has a pre-determined bill credit rate schedule, another benefit of this proposal is that it creates cost certainty and eliminates the risk of unplanned significant cost increases that are inherent in the ARR bill credit rate structure (as described more below).

We highlight four core reasons why addressing ARR-era CSG costs, the fact that these costs have increased significantly over time, and risk continuing to do so in the future, is in the public interest.

1. Addressing the cost of ARR-era CSG bill credits is the most effective way to address overall program costs because ARR CSGs make up the majority of the program’s capacity and the ARR bill credit is higher than the VOS credit.

Xcel’s October 2023 CSG report shows that there are 742 ARR gardens and 198 VOS gardens.⁷ On a capacity basis, out of 866 MWac total CSGs operating, 684 MWac – or 79% – are ARR gardens.⁸ For 2023, the ARR rate ranges from \$0.1519 to \$0.1897 per kWh⁹, while the 2023 VOS rate is \$0.1058/kWh in year one and \$0.1323/kWh levelized over the 25-year

⁶ Xcel Proposal at 5.

⁷ Xcel Energy, *Quarterly Compliance Report*, Docket No. 13-867, October 27, 2023 Q3 CSG report at 2.

⁸ Xcel Proposal at 2, FN 2.

⁹ Xcel Energy, *2023 ARR & 2023 Alternative*, Docket No. 13-867, July 5, 2023. Redline to Minnesota Electric Rate Book – MPUC No. 2, Section No. 9, 8th Revised Sheet No 64.1:

Customer Class	Bill Credit Type	Bill Credit Rate per kWh (AC) for Energy Delivered to Company
Residential Service	Standard	\$0.152520-13940
	Enhanced – Solar Gardens > 250 KW (AC)	\$0.172520-15940
	Enhanced – Solar Gardens ≤ 250 KW (AC)	\$0.182520-16940
Small General Service	Standard	\$0.159690-14026
	Enhanced – Solar Gardens > 250 KW (AC)	\$0.179690-16026
	Enhanced – Solar Gardens ≤ 250 KW (AC)	\$0.189690-17026
General Service	Standard	\$0.131860-11717
	Enhanced – Solar Gardens > 250 KW (AC)	\$0.151860-13717
	Enhanced – Solar Gardens ≤ 250 KW (AC)	\$0.161860-14717

term, and the 2024 VOS rate is \$0.0990/kWh in year one and \$0.1249/kWh levelized.¹⁰

Given that ARR gardens make up the vast majority of the CSG program capacity and the ARR bill credit is, and historically has been, higher than VOS bill credits, it is not surprising that ARR gardens comprise the bulk of the overall CSG program costs. Xcel estimates that of the total current program costs, approximately 80% of those costs come from ARR gardens.¹¹ As such, adjustments to the ARR gardens' bill credit rate are the most impactful way to address current and future CSG costs now and into the remaining 18-19 years of the ARR gardens' program term.

2. The cost of ARR gardens is likely to keep increasing over the 25-years of each project.

Because the ARR bill credit is directly tied to retail electricity rates, as well as nearly all components of a customer's bill (riders, demand charges, etc.),¹² the cost trajectory of the ARR bill credit is not a known quantity that can be planned around. Moreover, it tracks customer rates, so if rates rise, overall ARR-era CSG costs will continue to grow. This will be true any time customer costs rise even if overall electric *bills* and affordability of electric service are being managed through energy efficiency and demand management programs. Or similarly, if electricity costs in the energy transition push up retail rates despite being overall cost-effective for the system and/or the public interest.

¹⁰ Xcel Energy, *2024 VOS Calculation*, Docket No. 13-867, September 1, 2023 at 1 and Attachment A figure ES-2.

¹¹ See *Xcel proposal* at 4, FN 8, citing its July 28, 2023 *Quarterly Compliance Report*. We approximated 85% of costs coming from ARR projects in our March 30, 2023 comments, using Xcel's January 31, 2023 *Quarterly Compliance Report*. Xcel's most recent *Quarterly Compliance Report* from October 27, 2023 shows that 82% of bill credit costs reported in that period are from ARR gardens (at Attachment B). Based on this, we feel that 80% is a reasonable, if conservative, estimate.

¹² Minnesota Public Utilities Commission, *Order Rejecting Xcel's Solar-Garden Tariff Filing and Requiring the Company to File a Revised Solar Garden Plan*, April 7, 2014 at 27, ordering para. 9 (providing "Xcel shall credit each subscriber's portion of the solar-garden production at the applicable retail rate, which shall be the full retail rate, including the energy charge, demand charge, customer charge and applicable riders, for the customer class applicable to the subscriber receiving the credit.).

As mentioned above, overall CSG program costs have risen dramatically in recent years, with ARR projects being the main contributor. This increase tracks the rise in the ARR bill credit. For example, the General Service (large customer) ARR bill credit increased from \$0.1255 per kWh in 2020, to \$0.1277 in 2021, to \$0.1372 in 2022, and to \$0.1519 in 2023.¹³ The basic structure of the ARR tracking directly with the all-in cost of retail rates combined with the overall size of the ARR gardens creates substantial risk of very significant costs in future years, as most of these projects have 18-19 years left of operation.

3. The ARR bill credit rate is not tied to the value from those solar projects to the electric system.

While the cost of the ARR CSGs to Xcel customers has been increasing, the value of these ARR projects to the electric system has not. This is simply the case because the ARR bill credit rate is linked to customer rates and has no direct connection to electric system benefits. As such, the ARR bill credit rate is much higher than even valuations such as the Value of Solar methodology that includes a significant environmental avoided-cost: \$0.1519/kWh for the 2023 general service ARR versus \$0.1323/kWh for the 2023 VOS levelized rate and \$0.1058/kWh for the 2023 VOS Year 1 rate.¹⁴

Indeed, the 2017 VOS that is proposed to be the new bill credit seeks to capture the system value of these projects (including environmental externalities) given the electric system conditions at the time these projects were installed. The VOS bill credits from 2014 – 2017,

¹³ Xcel Energy response to Fresh Energy Information Request No. 27, Attachment 1 (hereinafter “Fresh Energy Attachment 1”).

¹⁴ *Fresh Energy Attachment 1*. We note that we are not endorsing the principal of including environmental externalities in a bill credit rate paid to a subset of Xcel customers as a reasonable measure of avoided cost, but include it here to highlight that even very generous measures of avoided cost or “value” are well below the ARR.

the time when these projects were developed and installed, range from \$0.1208/kWh - \$0.1365/kWh levelized with Year 1 VOS credits ranging from \$0.0940/kWh - \$0.1075/kWh.¹⁵ The avoided cost calculation captured by the VOS is well below the \$0.1519/kWh - \$0.1897/kWh seen in the 2023 ARR.¹⁶ Again, this is because the ARR is based on all-in customer rates and charges, not value to the system, costs avoided by a project, or the project's cost itself. Therefore, currently – and certainly if the ARR continues to rise – increases in costs do not come with corresponding increases in value to the electric system.

Similarly, the increases to ARR bill credits are not related to project costs because those factors are not considered in the ARR. ARR-era CSG projects are now constructed and in-service, so their project costs are almost entirely set. While it is reasonable to incorporate modest cost escalators over the life of a project – like the VOS includes an annual escalator meant to account for inflation – the ARR increases we have seen to-date and that could very well continue, go well beyond a modest escalator.

It is also instructive to compare the ARR bill credit to net metered projects. Net metering rates for Minnesota investor-owned utilities are established using the “average retail utility energy rate” which is defined as “for any class of utility customer, the quotient of the total annual class revenue from sales of electricity minus the annual revenue resulting from fixed charges, divided by the annual class kilowatt-hour sales”¹⁷ For Xcel Energy customers, the 2023 average retail energy rate (net metering compensation rate) ranged from \$0.12565/kWh for a residential customer to \$0.07595/kWh for a general service customer.

¹⁵ *Id.*

¹⁶ *See* fn 9.

¹⁷ Minn. Rules 7835.0650.

Notably, for residential customers, ARR bill credits are 2.7-5.7 cents/kWh *higher* than the comparable net metering rate. For commercial customers, ARR bill credits are 5.6-8.6 cents/kWh higher than the comparable net metering rate, although general service customers may be eligible for the PV Demand Credit Rider, which increases the bill credit for power generated between 1-7pm by approximately 7 cents, for up to 75-100 hours per month.¹⁸ On an average annual basis, we estimate that the PV Demand Credit Rider increases net metering rates approximately \$0.0155/kWh,¹⁹ which would reduce the spread between net metering and ARR rates to approximately 4-7 cents/kWh. This means a general service customer could receive almost *double* the bill credit from subscribing to an ARR-era garden compared to installing on-site distributed generation. This situation does not have a rate-design policy basis and is out of step with fundamental avoided cost principles, particularly because most CSGs require significantly more utilization of the distribution system than a net metered solar array, which first serves on-site load.

When taken together, the fact that the ARR bill credit rate is not connected to CSG project costs, is well above any reasonable measure of these projects' value to the electric system, and is well above the compensation rate paid to net metering customers, suggests that the current ARR and future increases amount to windfall gains to the ARR project owners and/or subscribers—paid for by all of Xcel's customers.²⁰

¹⁸ Northern States Power Company, *Electric Rate Book*, Section 5-125, Rate Code A86.

¹⁹ This is an estimate based on the percent of annual daylight hours that the PV Demand Credit Rider could apply. Using the rider's monthly caps (100 hours per month in summer, 75 hours in other seasons), the rider may apply to ~22% of daylight hours. $\$0.07/\text{kWh} * .22 = \$0.0154/\text{kWh}$.

²⁰ Whether the windfall accrues to the subscriber or CSG owner depends on the contract between the CSG owner and the subscriber. The Commission and stakeholders do not have access to these contracts, so we cannot provide information on the breakdown of windfall benefit to subscribers versus CSG owners.

4. The mix of subscribers to the ARR projects is heavily skewed to large customers.

For ARR-era CSGs, large commercial customers subscribe to 82% of the capacity and account for 80% of the overall ARR CSG costs.²¹ While the CSG program costs are paid for by all customers, the benefits (beyond the returns to CSG project owners) are accruing disproportionately to large customers. It is in the public interest to have the CSG subscriber base more closely match the proportion of customers who are paying for it, especially when those non-subscribers who are paying for the costs include low-income customers.

For these reasons, it is in the public interest for the Commission to take action using its authority in the statute and the program tariff to adjust CSG costs to be more reasonable considering system costs versus benefits, and the balance of who is paying those costs and to whom the benefits are accruing. More generally, it is important as we transition to a carbon-free electric system and carbon-neutral economy, that we use our resources efficiently. Making an adjustment to the bill credits of the ARR-era CSGs would both limit unfairness and avoid adding customer costs that do not further the energy transition.

Transitioning ARR-era gardens to a VOS-based bill credit would accomplish these objectives by reducing current costs for ARR gardens, which are the vast majority of CSG projects and costs. Equally as important, moving the ARR gardens to a VOS-based rate would put them on a known rate schedule that is increasing 2.3 percent year on year. This would have the very important benefit of eliminating the risk of compounding large future cost increases – cost increases that would have no connection to project cost or value and as such would be windfall for project owners and/or subscribers. Finally, it would also limit unfairness caused by the subscriber mix, which would only

²¹ Xcel Energy, *Quarterly Compliance Report*, Docket No. 13-867, October 27, 2023 Q3 CSG report at Attachment B.

be exacerbated as ARR costs increase.

Modifications to Xcel's Proposal

Fresh Energy supports Xcel's proposal as requested by the Commission to transition ARR-era CSGs from the ARR bill credit to the 2017 VOS rate schedule (starting in year 7 of the schedule in 2024) because it would both reduce current costs and protect against unknown, potentially very significant future costs. However, we also recommend two modifications to Xcel's proposal. The first is to consider a modification directed towards residential and small business subscribers and the second is to consider a modification that would modestly lessen the bill credit reduction for large customers.

Residential and small business modification

We recommend that the Commission modify Xcel's proposal by adopting it only for the General Service customer class, and not the Residential and Small General Service customer classes. As shown above, the General Service customer class is the vast majority of the ARR garden capacity and cost. Therefore, with this modification, Xcel's proposal would generally still have 80% of its effect in both near-term and long-term cost reduction and certainty.

We make this recommendation because there are specific considerations for the residential customer class. Residential subscribers are generally less-resourced and sophisticated in terms of their CSG contracts and understanding changes to the program, and the change from ARR to VOS would be a more substantial bill credit reduction for residential subscribers. This modification would prevent CSGs that have supported residential class subscribers from seeing the biggest changes in bill credits. The same is generally true of small businesses in the Small General Service class, and moreover, those customers make up only one percent of the ARR CSGs' capacity and

costs.²²

Large customer modification

We recommend that the Commission also modify Xcel's proposal by implementing an "add" to the VOS rate Xcel proposes for the General Service ARR subscribers that would be moved to the 2017 VOS year 7 rate in 2024. An "add" on top of the VOS is an established tool that the Commission has used in the past for residential VOS subscribers for policy reasons.²³ We think that same tool would be of use in this case to smooth the impact of transitioning General Service ARR subscribers from ARR to VOS. In this case, we recommend a \$0.01 per kWh add to the 2017 VOS year 7 rate. Xcel's proposal to move to year 7 of the 2017 VOS rate puts the subscriber bill credit at \$0.1185/kWh.²⁴ While the 2023 ARR for General Service is \$0.1519/kWh, the five-year average ARR for General Service 2018-2022 was \$0.1279/kWh.²⁵ Our proposal of a \$0.01/kWh add would put the revised 2017 VOS year 7 rate at \$0.1285/kWh, which is marginally higher than the 2018-2022 average ARR bill credit these customers received.

We offer this recommendation to address the concern that a subscriber rate below historical levels could result in losses for subscribers due to the rate subscribers pay to the CSG operator under their ARR CSG contract. Our proposal, by bringing the bill credit in line with the historical average, would maintain the bill credit revenue subscribers generally saw before the large increase in 2023. Moreover, since the 2017 VOS rate has a 2.3 percent escalator,²⁶ subscribers who signed a subscription agreement that has a similar escalator in the rate they pay the CSG owner would generally be held harmless over the remainder of their subscription. In the case that a subscriber's

²² *Id.*

²³ See e.g., *Order Declining to Extend the Residential Adder to the 2023 Value of Solar*, Docket No. 13-867, December 8, 2023 at 2.

²⁴ *Xcel Proposal* at 4, Table 2.

²⁵ *Fresh Energy Attachment 1* (averaging General Service Applicable Retail Rate for years 2018-2022).

²⁶ Xcel Energy, *Compliance Filing Value of Solar Workpapers*, Docket No. 13-867, September 30, 2016 at Table 3, "Fixed Assumptions".

subscription price is directly tied to their bill credit from the CSG subscription, they would be held harmless no matter the change in bill credit rate.

In addition, by keeping the bill credit rate above the level of the 2018-2022 average, this modification satisfies the CSG statute's criteria that the program "reasonably allow for the creation, financing, and accessibility of community solar gardens."²⁷ The ARR gardens are already created, financed, and accessible. It is reasonable to expect that projects would remain financeable with a rate consistent with the bill credit level in place for the majority of the project's operation to-date, and which would escalate at 2.3 percent annually. We would argue that if financing these projects requires bill credit rates dramatically higher than the already-generous rate that was in place in 2018-2022, and/or requires bill credit rates rising faster than the VOS escalator, to the extent that a financier might cancel financing and not work in good faith with CSG operators and subscribers to accommodate a rate modification, then the financing of those projects is not "reasonable" under the language of the statute.²⁸

Finally, while the two proposed modifications we recommend would reduce the savings to Xcel customers, they would still lead to substantial savings,²⁹ and importantly, would put 80% of the ARR-era CSG costs on an established and fully predictable cost schedule that escalates at 2.3 percent annually per the 2017 VOS.³⁰

²⁷ Minn. Stat. 216B.1641(e)(1).

²⁸ Coalition for Community Solar Access, *Request for Extension of Time to File Comments*, Docket No. 13-867, November 3, 2023 at 1 (suggesting that Xcel's proposal could "mak[e] CSG projects insolvent".)

²⁹ We ask that Xcel calculate the savings if our modifications are adopted in its Reply comments.

³⁰ Xcel Energy, *Compliance Filing Value of Solar Workpapers*, Docket No. 13-867, September 30, 2016 at Table 3, "Fixed Assumptions".

For these reasons, we recommend that the Commission approve Xcel's proposal with two modifications discussed above.

Recommendations

1. Adopt Xcel's proposal with modifications:
 - a. Apply Xcel's proposal to General Service ARR subscribers; and
 - b. For the General Service ARR subscribers, apply a \$0.01 per kWh adder to the 2017 VOS year 7 rate for 2024 and adjust the 2017 VOS rate schedule escalation for years 8-25 accordingly.

/s/ Allen Gleckner

Allen Gleckner

Fresh Energy

408 St. Peter Street, Suite 350

St. Paul, MN 55102

gleckner@fresh-energy.org

