

**STATE OF MINNESOTA  
PUBLIC UTILITIES COMMISSION**

Katie Sieben	Chair
Valerie Means	Commissioner
Matt Schuerger	Commissioner
Joseph K. Sullivan	Commissioner
John Tuma	Commissioner

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

**MINNESOTA SOLAR ENERGY INDUSTRIES ASSOCIATION'S (MnSEIA) COMMENTS**

**November 18, 2020**

**Docket No. E-002/M-13-867**

**MnSEIA's COMMENTS**

The Minnesota Solar Energy Industries Association (MnSEIA) is a 501(c)(6) nonprofit trade association that represents our state's solar businesses, with over 110 member companies, which employ over 4,200 Minnesotans.

**BACKGROUND**

The Minnesota Public Utilities Commission (Commission) adopted the Value of Solar (VOS) methodology in its April 1, 2014 Order in Docket No. E999/M-14-65, and approved its use for Northern States Power Company, d/b/a Xcel Energy's (Xcel or the Company) Solar\*Rewards Community (CSG) Program through the Commission's September 6, 2016 Order in this docket.

On September 1, 2020, Xcel submitted its VOS calculation for the vintage year 2021.<sup>1</sup>

---

<sup>1</sup> Northern States Power Company, d/b/a Xcel Energy, COMPLIANCE FILING 2021 VOS CALCULATION COMMUNITY SOLAR GARDENS PROGRAM, DOCKET NO. E002/M-13-867, Doc. Id. 20209-166369-01 (Sept. 1, 2020). *Hereinafter* "Xcel Calculation" or "Xcel Filing."

On September 4, 2020, the Commission issued a Notice of Comment Period seeking comment on Xcel's calculation of the VOS rate for 2021.

## COMMENTS

### **I. Xcel's Choice to Use the Average of the Last Three Years' Fleet Production Data Arbitrarily Devalues the Rate And Is Not Substantiated**

Xcel introduced a new aspect to its calculations of one of the factors for the 2021 vintage VOS, but does not adequately substantiate the move. The calculations **overweight unrepresentative PV Fleet Data from 2017** by weighting the years 2017, 2018, and 2019 the same, despite a vast disparity in data quality between the years. In essence, the Company treats incomplete data from the 2017 fleet the same as good data from 2019. This calculation is a misinterpretation of the Commission's intent to incorporate more—and more granular—data to measure the PV Fleet Shape. Furthermore, Xcel does not discuss and substantiate these specific choices made regarding *how* to implement the Commission's Order.

While we will discuss our reasoning below, we urge the Commission to reject this aspect of the Company's filing, and order Xcel **to use a weighted average of the three years of PV Fleet Data**.

The Company's inclusion of prior years of fleet data, on its face, is not problematic. In fact, MnSEIA has previously argued for the inclusion of real-world PV Fleet data to include smaller rooftop systems. But, MnSEIA's position was that data from thousands of projects be used—not the much smaller amount of projects that were actually equipped with the appropriate meters in 2017. The problem arises with the unrepresentative sample from 2017, which is given more weight per MW/MWh/hr than more representative data from 2018 and 2019. The Company cites a Commission Order to include Hourly PV Fleet Production Analysis in its filing.<sup>2</sup> That Order, at Point 3.b., requests that the Company:

3. For future annual VOS update filings, Xcel shall do the following:  
[...]
- b. Include in the filing:
  - i. A list of all changed parameters as permitted by the approved VOS Methodology, and any updated input values;

---

<sup>2</sup> Xcel filing. at 5, *citing* ORDER APPROVING XCEL'S UPDATE TO THE 2020 VALUE-OF- SOLAR RATE, In the Matter of the Petition of Northern States Power Company, d/b/a Xcel Energy, for Approval of Its Proposed Community Solar Garden Program, DOCKET NO. E-002/M-13-867, Doc. Id. 20203-160958-01 (March 4, 2020) at 8-9.

**ii. A discussion, along with any necessary tables, charts, and explanations, of how these changes will affect the VOS rate, as well as variables within the rate;**

iii. Hourly PV fleet production data for PV systems 1 MW and under in the utility service territory, including:

1. synchronized, time-stamped hourly values of average power over the same load analysis period and corresponding to the same hourly intervals,
2. data for every hour of the load analysis period,

and

3. a load analysis period including multiple contiguous years, with complete one-year periods, using available and correct data; and

iv. Sufficient evidence and data to support these changes.<sup>3</sup>

(Emphasis added.)

Xcel does not adequately substantiate how this change—to average the Fleet Capacity factor data points from 2017, 2018, and 2019—will affect the rate. The choice to average these years has a noticeable effect when compared to the baseline case of the previous methodology, where only the previous year’s data would be used, but Xcel does not compare, nor provide tables or charts, nor explain, nor discuss this change. Xcel also does not discuss the possibility of a weighted average, where every MW/MWh/hr is on equal footing.

Instead, the Company’s filing states:

For the 2021 VOS calculation, the Company updated our approach for calculating the PV Energy Production through the use of an Hourly PV Fleet Production analysis. (*Citing* “The Company provides Attachment O, Hourly PV Fleet Production data, in compliance with Order Point 3.b.iii of the Commission’s 2020 Order.”) This analysis utilizes available data from PV Systems 1 MW and smaller, including Community Solar Gardens, Solar\*Rewards, and customer sited solar with production meters for the period of 2017 through 2019. This timeframe was chosen because full year hourly production data for solar systems prior to 2017 is less complete. The production data sets were organized by resource, synchronized by time-stamped interval the energy was produced. The load and loss data are structured in the same manner as resource data identified above.<sup>4</sup>

This decision is to the benefit of the Company and to the detriment of CSG subscribers when compared to previous methodologies, but that shift is not immediately apparent or discussed.

---

<sup>3</sup> March 4, 2020 Order at 8-9

<sup>4</sup> *Id.* at 5.

The resulting *average* of that three year period yields a Capacity Factor higher than that measured for 2019, which has the effect of decreasing the 2021 VOS relative to using only the 2019 Capacity Factor. Because Xcel does not discuss the impact of the move to an average, we will here. The Capacity Factors Xcel cites for the years in question are 18.35% for 2017, 17.80% for 2018, and 16.92% for 2019. The 3 year average, which the Company proposes to use, is 17.69%.<sup>5</sup> The difference between the 2019 Capacity Factor and the 3 year average is .77%. In terms of kWh/kW, the figures are 1,608 kWh/kW for 2017, 1,559 kWh/kW for 2018, 1,482 kWh/kW for 2019, and 1,550 kWh/kW for the 3 year average. The difference between the 2019 figure and the 3 year average is 68 kWh/kW. We do not have access to enough data to compare a weighted average to the unweighted average here.

Using the 1,482 kWh/kW figure from the 2019 PV fleet data instead of the 3 year average yields a \$.0926/kWh year one rate instead of the \$.0911/kWh year one rate as proposed by Xcel, or a year one difference of .25¢/kWh. Expressed as a levelized rate, the VOS is \$.1126/kWh instead of \$.1104/kWh, or a difference of .22¢/kWh.<sup>6</sup>

During the discussions for the 2020 VOS adoption, the Commission largely agreed with the industry and other commenters that Xcel should use *all* distributed solar fleet data, not just data from existing CSGs. After all, Xcel's CSG program may be the only solar projects that are using the VOS currently, but the VOS is designed to encompass all distributed generation (DG) solar. Moreover, it could, at the utility's election, be adopted as a Net Metering alternative for new projects that are 1 MW and less. So, the VOS could apply to non-CSG solar projects too. The Commission, however, did not require Xcel to modify its methodology for the 2020 vintage VOS, but instead required the utility to incorporate all distributed solar in their fleet production for the 2021 vintage VOS (at issue here). The Commission permitted the 2020 VOS rate to go forward because it was too unwieldy and time intensive to make Xcel revise its 2020 VOS given the relatively minor impact it would have had on the rate at that time, and not because it agreed with Xcel's methodology.

Instead, the Commission ordered the adoption of an all DG PV-based approach for the 2021 VOS, because the 2018 fleet production approach (used for the 2020 vintage) is underinclusive. But, in the 2021 vintage VOS filing, Xcel misinterprets the intent of the Commission's order, and then does not substantiate its choice to implement the methodological change in the way that it has.

In defense of its approach, however, Xcel submitted the following in a response to MnSEIA Information Request 33:

---

<sup>5</sup> *Ibid.*

<sup>6</sup> See MnSEIA attachment.

The parameters of what type of data we were required to use were described by Commissioner Schuerger during the Commission meeting in this matter on January 23, 2020. At the link for the archive video from this session, beginning at about 1:53:30, he restated his modification to Decision Option 2.c., which was later unanimously adopted by the Commission, and stated as follows:

A modification of decision option 2.c. Clarifies the requirements for use of the “Utility Fleet, Metered Production” method for determining Hourly Fleet Production include all PV systems in the utility service territory that are 1 MW and under ... for next year and years after. Include all systems in the same load analysis period as outlined in the methodology. And I would just have the order writer link in the language from the methodology on page 12 which has multiple years included as long as they are contiguous, complete one-year periods. And they need to be time synchronized and time stamped hourly values. And I am not inclined to put a time period on here. ... My understanding is that they would use for the period that the VOS is in place, but that they would **use available and correct data, and would remove data that is not**. And, I think that if you have net metered systems that are not hourly then they are not hourly - you cannot use them. You use what you have. So, it may actually be a very small amount of data that is different than the CSG. I guess we will see. But, it is in compliance with this. And it needs to be multiple years.

The data used for this analysis met this criteria. We did not include data that did not meet this criteria. We have not calculated results outside of the data meeting the criteria.

The Company incorporated available hourly production data for resources 1 MW and smaller, as these were added to the system. As resources were operational, these were included in the subsequent month’s data set. Actual production data from 2017, 2018, and 2019 was utilized. **The evaluation commences with 27 MW of resources at the beginning of 2017 and concludes with more than 600 MW of resources at the end of 2019.**<sup>7</sup> (Emphasis added.)

The problem with Xcel’s implementation of its approach (and really the problem we have here today) is that the Company treats each year as an individual data point, instead of weighing the average with the total volume of projects in that particular year with other years. The data gathered from 27 MW is treated the same *on the whole* as data gathered from 600 MW. The averaging approach Xcel proposes would take decent 2019 data (i.e. it includes all types of DG solar, a lot of systems, and a full year of time) and averages it against worse data.

Of particular concern is Xcel’s use of the 2017 fleet production data, because the 2017 data set was so weak that the Commission did not even permit a transition to real world fleet production data when Xcel initially proposed it. The 2017 sample size was not big enough to use, and the

---

<sup>7</sup> Xcel response to MnSEIA Information Request 33 (emphasis added).

capacity data gleaned was not reliable.<sup>8</sup> So that year (the adoption of the 2019 VOS) the Commission required Xcel to retain the modelled VOS capacity assumptions. Adding a handful of residential projects to the 2017 year does not fix this problem.

Xcel's proposal to average 3 years of data would be valuable if the data was provided for a more robust data set through a weighted average. But, Xcel's proposal here treats the relatively small number of projects in 2017 with as much weight as the substantially larger number of projects in 2019. This is to say, Xcel proposes to treat the production from *the whole* of 600 MW in 2019 the same as the data from *the whole* of 27 MW from 2017, which grossly overweights the production from a given MW in the 2017 data: a MW from 2017 carries 22.22 times as much weight as one from 2019, in fact, when 2017 uses data from 4.5% of the MW that 2019 uses. The result is effectively equivalent to using *incorrect data*, which not only violates the plain language of multiple Commission orders, but also the additional detail Commissioner Schuerger laid out and was reiterated in Xcel's response to MnSEIA IR 33.

If Xcel wants to use the currently proposed methodology, where each year is treated as a data point to be averaged with other years, it must, at the very least, remove 2017's bad data from the averaging. However, our primary suggestion is to use a weighted average approach to ensure that the smaller sample sizes from 2017 and 2018 are not treated the same as the more robust 2019 fleet production number.. In the alternative, we would suggest Xcel revert to the previous methodology, and use the 2019 data as an stand-alone year (given that the data set looks reasonable) and begin the averaging from this point on.

## **II. The NYMEX Factor Exacerbates Short-Term Market Fluctuations, and is Inappropriate to Use in 2020**

Most important to the change in the 2021 vintage VOS this year is the NYMEX Factor, which has dramatically reduced the 2021 VOS from its 2020 level. This factor in the calculations is not merely a passive mechanism that *happened* to the VOS, but is rather *a choice* that Xcel made among two other, less short-term focused options within the VOS methodology. This choice also stands in contrast to the approach to PV Fleet Production data, where averaging over time is assumed to smooth over short-term fluctuations. Lastly, this method to estimate future natural gas prices diverges sharply from other methods the utility uses to calculate future natural gas prices.

The NYMEX NG futures are subject to year-to-year volatility in a similar way as the PV fleet production is. A sunny year would increase the measured Capacity Factor, and a cloudy or snowy one would decrease it. Similarly, NYMEX NG futures are affected by swings in natural

---

<sup>8</sup> See ORDER APPROVING XCEL'S UPDATE TO THE 2019 SYSTEM-WIDE VALUE- OF-SOLAR TARIFF RATE WITH MODIFICATIONS, In the Matter of the Petition of Northern States Power Company, dba Xcel Energy, for Approval of Its Proposed Community Solar Garden Program, DOCKET NO. E-002/M-13-867, 20193-151281-01 (March 22, 2019).

gas consumption from one-off events—like the pandemic-induced recession our country currently faces.

Moreover, NYMEX natural gas futures may not be an appropriate or accurate representation of future avoided costs *at all*, much less when selected at a singular point in time. Gabriel Chan, of the Hubert H. Humphrey School of Public Affairs at the University of Minnesota, digs into two problems raised by Xcel’s reliance on NYMEX natural gas futures as an indicator of future avoided fuel costs in the VOS calculator:

This approach relies on the assumption that natural gas futures contracts, as traded over the last few months before the VOS submission, represent reasonable forecasts of what the purchase costs of natural gas will be in the future.

The NYMEX-centered approach is concerning for two reasons:

- 1) Natural gas futures more than a few years out have low trading volume; and
- 2) Natural gas prices futures do not only reflect expectations of future spot prices. We explain these two concerns below.

First, a critical concern of using natural gas futures contracts is that futures with long maturities have very low trading volume. The more buyers and sellers there are for a futures contract of a specific maturity, the more robust extrapolations from futures prices to market expectations of future spot prices -- with low trading volume, the price of futures contracts conveys very little information. [...]

Second, there are reasonable concerns that natural gas futures prices may not be a good forecast for future avoided fuel costs. The Federal Reserve Bank of St. Louis provides a helpful explainer on the general conditions under which futures prices can provide a reasonable basis for price forecasts. According to the Bank, a critical dimension for understanding the relationship between spot prices, futures prices, and actual prices in the future is the cost and feasibility of commodity storage.<sup>9</sup>

The first problem that Chan identifies speaks to the volatility and inaccuracy in the NYMEX that we may be witnessing now. The NYMEX incorporates futures contracts with terms several years into the future, but is very heavily weighted toward contracts that conclude within the first few

---

<sup>9</sup> Gabriel Chan, Comments on Xcel Energy’s 2019 VOS Calculation and Proposed 2019 Vintage Year Bill Credit Tariff Sheets, Docket No. M-13-867, 201811-148058-01 (November 27, 2018) at 7-8. *See Ibid*, at 7-13 for further discussion (emphasis omitted).

months and years, with vanishingly few data points in the latter years incorporated into Xcel's calculation.<sup>10</sup> **The reality of this short-term focus in the index is fundamentally at odds with the methodology's reliance on it to predict avoided costs decades into the future.**

The second problem Chan highlights is even more fundamental—that the NYMEX is a poor fit for the way utilities like Xcel actually purchase, store, and use natural gas. Because the Company is able to store portions of its natural gas needs for months in advance, it can act as its own short-term hedge against price volatility, buying when prices are low to store for use when prices rebound. But, storage is not unlimited. When physical storage facilities for fossil fuels reach capacity, prices can plummet even into negative territory—meaning that one can be *paid* to take delivery of fossil fuel stocks.<sup>11</sup>

This feature of fossil fuel storage means that short-term futures—with which the NYMEX NG futures index is heavily weighted—misapprehends drivers of spot prices years in the future, when a current storage glut or drought may have long passed.<sup>12</sup> Short-term futures can even misapprehend the future over the short term: many speculators *this September* have misread the natural gas market only months in advance.<sup>13</sup> Moreover, many commodities prices are tied to delivery at a physical place and time; the NYMEX is based on delivery at the Henry Hub in Louisiana,<sup>14</sup> not, pointedly, at storage facilities for Xcel generators. These features of the NYMEX—its structural inaccuracy both long- and short-term, and its poor physical replication of what the Company will actually pay for natural gas—underscore its lack of predictive value for what it is meant to capture in the VOS methodology.

One of the benefits of solar generation as a one-to-one replacement for natural gas generation is its use as a hedge against the volatility of natural gas prices, because the cost of solar generation is effectively amortized over the life of any given system from a known up-front cost. Such is the logic of the VOS, which is intended to compensate solar generation fairly and accurately for the value to the system for future avoided costs.

But, when the volatility of natural gas futures is overrepresented in the VOS calculation, such as when the peculiar circumstances of a given year send the NYMEX careening in one direction or another, then the VOS itself takes on that volatility to the potential detriment of CSG subscribers,

---

<sup>10</sup> See Chan at 7.

<sup>11</sup> See “Too Much Oil: How a Barrel Came to Be Worth Less Than Nothing,” New York Times, April 20, 2020 (Updated April 27, 2020), retrieved on October 10, 2020 at <https://www.nytimes.com/2020/04/20/business/oil-prices.html>.

<sup>12</sup> See also Chan at 8-9, citing Emmons, William and Timothy Yeager (2002). Federal Reserve Bank of St Louis. Available at: <https://www.stlouisfed.org/publications/regional-economist/january-2002/the-futures-market-as-forecasting-tool-an-imperfect-crystal-ball>

<sup>13</sup> See “Natural Gas Craters After Weak Demand, Glut Blindside Bulls,” Bloomberg (September 17, 2020), retrieved October 10, 2020 at

<https://www.bloomberg.com/news/articles/2020-09-17/natural-gas-prices-crater-after-increase-in-u-s-stockpiles>

<sup>14</sup> See U.S. Energy Information Administration, [https://www.eia.gov/dnav/ng/NG\\_PRI\\_FUT\\_S1\\_D.htm](https://www.eia.gov/dnav/ng/NG_PRI_FUT_S1_D.htm)



or alternatively when it rises, non-subscribing ratepayers. That volatility is likely neither a fair nor accurate representation of what the Company will pay (or avoid paying) for fuel ten years from now.

While the detriments of the NYMEX as an accurate proxy for future avoided costs may be a fault of the methodology, to use it is still Xcel's choice among three options—and **Xcel has chosen the option that is the most volatile and most susceptible to short-term disruptions like this year's recession**. The methodology allows for two other options to predict future avoided fuel costs: Long Term Price Quotation and Utility-guaranteed Price.<sup>15</sup> The former “is identical to the above option [the Futures Market employed in Xcel's filing], except the input pricing data is based on an actual price quotation from an AA-rated NG supplier to lock in prices for the 25-year guaranteed period.”<sup>16</sup> And, the latter “is the 25-year fuel price that is guaranteed by the utilities. Tariffs using the utility guaranteed price will include a mechanism for removing the usage fuel adjustment charges and provide fixed prices over the term.”<sup>17</sup> Because both of these options require a 25-year commitment, either by a natural gas supplier or by the utility itself, both require the committing party to assess the market risks over the full term of avoided costs. Furthermore, both require the committing party to assess the actual storage and delivery costs to Xcel, rather than delivery to the Henry Hub in Louisiana.

These aspects of the other avoided fuel cost options stand in stark contrast to the short-term focus and physical delivery mismatch of the NYMEX. But more importantly, Xcel has not substantiated its choice to use the NYMEX instead of either of these. In the absence of the Company actually exercising these options to discover avoided costs with those methods, we are not in a position to discuss their impact on the VOS beyond theory. That theory, however, suggests that either method would be more resilient to the whims of fickle short-term natural gas futures. **Xcel should substantiate its choice to use the most short-term-focused choice with evidence before the Commission.**

Because Xcel's NYMEX calculation for 2020 spans March to June, the number that the 2021 VOS is using seems to be pulling from is about as volatile a time as there has been in NYMEX's history. It runs afoul of both of the issues Chan highlighted last year, since that particular window saw instances of negative pricing and artificial deflations in spot marking natural gas pricing. Using a period of time when natural gas prices plummeted due to a temporary period of global pandemic related shutdowns is not a great way to calculate a rate for 25 years. If the current NYMEX figure is to be used, then natural gas volatility is effectively harming solar's ability to curb the impacts of that same natural gas volatility through a depressed 2021 VOS rate.

---

<sup>15</sup> ORDER APPROVING DISTRIBUTED SOLAR VALUE METHODOLOGY, In the Matter of Establishing a Distributed Solar Value Methodology under Minn. Stat. § 216B.164, subd. 10 (e) and (f), DOCKET NO. E-999/M-14-65, Doc. Id. 20144-97879-01 (April 1, 2014) Attachment A at 23.

<sup>16</sup> *Ibid.*

<sup>17</sup> *Ibid.*

One approach to avoid the impact of year-to-year volatility is to use an average, as with the PV Fleet Production figures discussed above. If it is appropriate to average PV Fleet production to come up with a more accurate representation of the fleet's Capacity Factor, then it is appropriate to average past-year NYMEX NG futures to come up with a more accurate representation of avoided fuel costs. (Similarly, if it is *not* appropriate to overweight outlier years in the average of NYMEX NG futures, then it is *not* appropriate to overweight outlier years in an average PV fleet production data.)

Lastly, the NYMEX breaks with other methodologies Xcel employs to calculate the future price of natural gas. For Conservation Improvement Program purposes, the Company uses the 2021-2023 Gas CIP BENCOST Model.<sup>18</sup> That calculation finds \$3.25/Dth for projected Commodity Costs, and uses a 4.69% escalation rate to predict future price changes—both by way of Energy Information Administration Annual Energy Outlook data. By stark contrast, the price of natural gas in Xcel's 2021 VOS filing of \$2.58/Dth is 79.38% the price of gas figured into the Company's CIP filing; moreover, the escalation rate in the CIP filing ramps up more than twice as quickly compared to the 2.11% fuel price escalator used for the VOS. Xcel has not shown reason why these forecasts should be so divergent.

As such, MnSEIA respectfully offers several possible improvements to this singularly unrepresentative data sample: 1) **use the CIP BENCOST model to align with other utility plans around future natural gas prices**; 2) **use either of the other approved measurements from the VOS methodology—either the Long Term Price Quotation or the Utility-guaranteed Price**; 3) **use a NYMEX figure averaged from this and the previous 2 years**; or, 4) **recalculate the NYMEX number using more current, and likely less pandemic-impacted, months in the Fall of 2020.**

### **III. Delayed Interconnections Have Affected 2020 Vintage CSGs**

For reasons of public policy, the Commission should not rush to adopt the Company's filing at terms advantageous to the utility when the Company has delayed interconnection of 2020 vintage CSGs. As detailed and discussed in other dockets that are currently at issue, Xcel has "botched the MN DIP roll-out"<sup>19</sup> across the board, and is delivering system impact studies for CSGs and similarly-sized projects on time only 10% of the time.<sup>20</sup> That bungling has caused economic harm to all sectors of Minnesota's solar industry, but especially CSGs.<sup>21</sup> A 2021

---

<sup>18</sup> See Xcel Energy, "2021-2023 CIP Triennial Plan, Minnesota Electric and Natural Gas Conservation Improvement Program," Docket No. E,G002/CIP-20-472, at 431, at <https://www.xcelenergy.com/staticfiles/xe-responsive/Company/Rates%20&%20Regulations/Regulatory%20Filings/MN%20fillings/2021-2023-CIP-Triennial-Plan.pdf>.

<sup>19</sup> COMMENTS OF THE MINNESOTA DEPARTMENT OF COMMERCE, DIVISION OF ENERGY RESOURCES, Docket Nos. E,G002/CI-02-2034 and E,G002/M-12-383 (July 2, 2020) at 3.

<sup>20</sup> Cite.

<sup>21</sup> MnSEIA 12-383 Comments

vintage VOS that is depressed relative to the 2020 vintage gives the Company monetary incentive to further delay until 2021 projects that would otherwise be deemed complete in 2020.

A) Decide the penalty for the Company's failure to meet the Quality of Service Plan first

The Commission should resolve the disputes in the Company's Quality of Service Plan before greenlighting a VOS vintage that disadvantages CSG subscribers. In that Docket the Company faces a seven-digit fine for exceeding the threshold of allowable Complaints to the Commission's Consumer Affairs Office for the year 2019.<sup>22</sup> But for 129 Complaints from solar installers regarding the Company's missed MN DIP timelines, poor software integration, incoherent logistics regarding solar production meters, and similar—but endemic—problems, the Company would not have exceeded the threshold.<sup>23</sup> The Company and the Department of Commerce (the Department, or Commerce) have argued that these Complaints be set aside and/or resolved in another venue.<sup>24</sup> MnSEIA<sup>25</sup> and others<sup>26</sup> have argued that without a negative incentive to check Xcel's bad interconnection practices, the Company would have little incentive to provide timely interconnection services to DG customers.

Not only has Xcel delayed the interconnection of many rooftop DG projects core to the issue in the Quality of Service Plan dispute, but it has also delayed many CSG projects—which serve potentially hundreds more Xcel customers. MnSEIA has provided evidence that many of the delays to 2020 vintage CSG projects have been arbitrary, capricious, and contrary to the intent of

---

<sup>22</sup> Cite to 12-383.

<sup>23</sup> See Northern States Power Company, d/b/a Xcel Energy, ANNUAL REPORT AND REQUEST FOR COMMISSION FINDING REGARDING THE CUSTOMER COMPLAINT PERFORMANCE SERVICE QUALITY PLAN, DOCKET NOS. E,G002/M-02-2034, E,G002/M-12-383, Doc. Id. 20205-162847-01 (May 4, 2020),

<sup>24</sup> See Minnesota Department of Commerce, Division of Energy Resources, Comments of the Minnesota Department of Commerce, Division of Energy Resources, Docket Nos. E,G002/CI-02-2034 and E,G002/M-12-383, Doc. Id. 20207-164613-02 (July 2, 2020) and Minnesota Department of Commerce, Division of Energy Resources, Reply Comments of the Minnesota Department of Commerce, Division of Energy Resources, Docket Nos. E,G002/CI-02-2034 and E,G002/M-12-383, Doc. Id. 20207-164613-02 (August 10, 2020).

<sup>25</sup> See Minnesota Solar Energy Industries Association (MnSEIA) Comments, In the Matter of the Petition of Northern States Power Company d/b/a Xcel Energy for Approval of Amendments to its Natural Gas and Electric Service Quality Tariffs Originally Established in Docket No. E, G-02/CI-02-2034 & Investigation and Audit of Service Quality Reporting-Fraud wise Report, DOCKET NO. E,G002/M-12-383, Doc. Id. 20207-164547-01 (July 1, 2020). *Hereinafter* "MnSEIA 12-383 Comments."

<sup>26</sup> See INITIAL COMMENTS OF THE INTERSTATE RENEWABLE ENERGY COUNCIL, INC., FRESH ENERGY, THE ENVIRONMENTAL LAW & POLICY CENTER, AND VOTE SOLAR ON XCEL ENERGY'S ANNUAL REPORT AND REQUEST FOR COMMISSION FINDING REGARDING THE CUSTOMER COMPLAINT PERFORMANCE SERVICE QUALITY PLAN, In the Matter of the Petition of Northern States Power Company d/b/a Xcel Energy for Approval of Amendments to its Natural Case and Electric Service Quality Tariffs Originally Established in Docket No. E, G-02/CI-02-2034 & Investigation and Audit of Service Quality Reporting-Fraud wise Report, DOCKET NO. CI-02-2034 DOCKET NO. M-12-383, Doc. Id. 20207-164520-01 (July 1, 2020).

MN DIP.<sup>27</sup> Many of these delays prevent CSG projects from being “deemed complete,”<sup>28</sup> which prevents them from being locked into the 2020 vintage VOS.

When the 2020 vintage VOS is higher—by .48¢/kWh levelized—than the 2021 vintage with which Xcel proposes to replace it, then the utility has monetary incentive to delay completion of projects that have applied for the 2020 VOS, but have not yet been deemed complete. The Commission should not approve the 2021 VOS until an enforcement mechanism has been developed, both to keep the Company in compliance with MN DIP, and to give the utility some incentive to work collaboratively both to mitigate further missed tariff timelines and to improve MN DIP in Docket 16-521.

B) Let the 2020 VOS stand until Xcel’s interconnection process is fixed

The appropriate enforcement mechanism for Xcel’s failure to interconnect DG facilities in a timely manner may be partially found here, in the question of approval of the 2021 vintage VOS. Given that the 2020 vintage VOS is higher than the 2021 vintage, its retention as the VOS would serve as a monetary incentive for Xcel to improve its interconnection process.

As discussed above, the Company has a monetary incentive to delay until 2021 projects that would be otherwise deemed complete in time for the 2020 vintage. Were the Commission to deny the approval of the 2021 vintage as proposed, the Commission would also strip the Company of this perverse incentive. We do not make this suggestion lightly, but rather as a reflection of the deep frustration felt by MnSEIA member developers that have had to idle workers, lost customers, and overpaid the Company for interconnection studies and re-studies.

In the absence of a resolution to the question of what penalties the Company should face for its interconnection failures—either through the Quality of Service Plan or through a revision of the MN DIP—the Commission should consider the possibility of non-approval of the 2021 vintage VOS. We are aware that such a decision would not be made on the merits of the Company’s application of the VOS methodology to the data (and we have discussed those merits above), but rather would be made for reasons of public policy.

**IV. The Commission Should Consider Extending the Residential Adder**

In November 2018 the Commission ordered the implementation of a Residential Adder of \$0.015/kWh for 2019 and 2020, and **MnSEIA requests that the Commission consider a year-for-year extension of this adder in conjunction with the approval of the 2021 VOS rate.**<sup>29</sup> One of the criticisms levied against this program is the total capacity figure of subscribed

---

<sup>27</sup> See MnSEIA 12-383 Comments.

<sup>28</sup> *Ibid.*

<sup>29</sup> See ORDER ADOPTING ADDER AND SETTING REPORTING REQUIREMENTS, MN PUC, Docket No. E-002/M-13-867, Doc. Id. 201811-147853-01 at 9 (Nov. 16, 2018).

energy coming from commercial and industrial customers, and the Residential Adder combats that issue.

Under the framework of Minn. Stat. 216B.1641, the Residential Adder is the only mechanism the Commission has to steer the development community towards a residential market without hampering the program generally. The Residential Adder is necessary to comply with the guiding statute, ensuring that CSGs are accessible to all Xcel Energy ratepayers.<sup>30</sup> Without the adder, the single flat rate associated with the VOS steers developers towards models with fewer subscribers, because of lower acquisition and management costs. Currently, the end of the Residential Adder will be the effective end of material residential participation in the program, and we hope the Commission will consider elongating the residential access period for at least another year—at least until the impact of the Residential Adder can be quantified with sufficient data.

### **Conclusion**

Xcel’s filing for the 2021 vintage VOS falls short of the expectations for fairness and accuracy that stakeholders deserve for two reasons. First, Xcel inappropriately weights data from 2017 and 2018 in its Capacity Factor calculations, and does not adequately discuss or substantiate this interpretation of the Commission’s Order. Second, Xcel chooses to use the NYMEX NG futures as an estimate for future avoided fuel costs. This choice, while allowed by the methodology, is conspicuously the most sensitive of the three to short-term market fluctuations offered in the VOS methodology—made during a very significant short-term market fluctuation—and not the same data used in analogous utility calculations, like the CIP.

These shortcomings in Xcel’s filing alone should urge the Commission to reconsider the 2021 VOS calculation, but there is a final reason to withhold immediate approval of this vintage, regardless of the merits of the calculation. As discussed in other dockets, Xcel has been conspicuously slow to interconnect DG solar projects—including and maybe especially CSGs. The financial burden for this poor performance is so far borne exclusively by solar companies and their customers. While Xcel may face a penalty under Quality of Service Plan, the Company has sought to avoid penalty, if not also culpability. With a lower VOS on the horizon for 2021, Xcel faces a further monetary incentive to delay the “deemed complete” stage of CSG applications until the lower VOS vintage takes effect. On the flip side of that coin, were the Commission to leave in place the 2020 VOS, Xcel would have a monetary incentive to fix its interconnection process.

For these reasons the Commission should ask Xcel to recalculate the 2021 vintage VOS to use only appropriately weighted PV Fleet production data in the Capacity Factor input, and to

---

<sup>30</sup> See Minn. Stat. 216B.1641(e) (1)(requiring “the creation, financing, and accessibility of community solar gardens”).

substantiate its choice during an economic downturn to use the NYMEX NG futures instead of the other, more long-term focused metrics for future avoided fuel costs. In the alternative, we urge the Commission to deny the Company a perverse incentive to delay the interconnection process for CSGs. We also ask that the Commission include the Residential Adder for the 2021 VOS, regardless of the other decisions presented here.

--

David Shaffer, esq.  
MnSEIA  
Executive Director  
(e) [dshaffer@mnseia.org](mailto:dshaffer@mnseia.org)  
(c) 612-849-0231

Peter Teigland, esq.  
MnSEIA  
Policy Associate  
(e) [pteigland@mnseia.org](mailto:pteigland@mnseia.org)  
(c) 612-283-3759