

March 1, 2022

**PUBLIC DOCUMENT**

Will Seuffert  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
Saint Paul, Minnesota 55101-2147

RE: **PUBLIC Comments of the Minnesota Department of Commerce, Division of Energy Resources**  
Docket No. E002/M-20-743

Dear Mr. Seuffert:

Attached are the **PUBLIC** comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) in the following matter:

2021 Sales Actual Data and Related Revenue Calculations submitted by Northern States Power Company d/b/a Xcel Energy (Xcel Energy or the Company), pursuant to the Minnesota Public Utilities Commission's (Commission) April 2, 2021 Order Approving True-Ups With Modifications And Requiring Xcel To Withdraw Its Notice of Change In Rates and Interim Rate Petition.

The Sales True-Up Compliance Filing was filed on February 1, 2022 by:

Lisa R. Peterson  
Manager, Regulatory Analysis  
Xcel Energy  
414 Nicollet Mall  
Minneapolis, Minnesota 55401

The Department reviewed the Company's compliance filing and recommends **approval** and is available to respond to any questions the Minnesota Public Utilities Commission may have on this matter.

Sincerely,

/s/ SACHIN SHAH  
Rates Analyst

/s/ CHRISTOPHER DAVIS  
Rates Analyst Coordinator

SS/CD/ar  
Attachment



## Before the Minnesota Public Utilities Commission

### PUBLIC Comments of the Minnesota Department of Commerce Division of Energy Resources

Docket No. E002/M-20-743

#### I. INTRODUCTION

On June 12, 2017, the Minnesota Public Utilities Commission (Commission) issued its Findings of Fact, Conclusions of Law, and Order (June 12 Order); concerning the request by Northern States Power Company d/b/a Xcel Energy (Xcel or NSP or the Company) to increase electric rates in Minnesota on a multi-year basis in docket E002/GR-15-826 (Docket 15-826).

In the Docket 15-826, the Commission approved a four-year multi-year rate plan (2015 MYRP) for the Company. That MYRP expired on December 31, 2019. On November 1, 2019, in Docket No. E002/M-19-688 (Docket 19-688), Xcel filed a Stay Out Proposal for 2020 that included three separate true-ups, (1) a sales true-up for all classes; (2) a capital true-up; and (3) a property tax true-up. In addition, Xcel requested a one-year delay in increasing the accrual to the nuclear decommissioning trust (NDT) in Docket No. E002/M-17-828. On March 13, 2020, the Commission issued its Order Approving True-Ups and Requiring Xcel to Withdraw Its Notice of Change in Rates and Interim Rate Petition.

However, on October 1, 2020 in Docket No. E002/M-20-743 (Docket 20-743), Xcel filed its Stay Out Proposal for 2021 that included three separate true-ups, (1) a sales true-up for all classes; (2) a capital true-up; and (3) a property tax true-up. In addition, Xcel requested a one-year delay in increasing the accrual to the nuclear decommissioning trust (NDT).<sup>1</sup>

In its Stay Out Proposal for 2021, the Company requested approval of the following:

- A 2021 sales true-up that would operate similarly to the currently-approved sales true-up established in the Company's 2015 MYRP (but that would apply to all customer classes) and currently approved for 2020 in Docket 19-688;
- A 2021 capital true-up that would operate consistently with the current capital true-up established in the Company's 2015 MYRP;
- A 2021 property tax true-up that would operate consistently with the current property tax true-up established in the Company's 2015 MYRP; and
- Commission approval to delay any increase to the NDT accrual until January 1, 2022, or alternatively, approval of an actual deferral so the Company would fund the increased accrual in 2021 and recover that expense in a future rate case.

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<sup>1</sup> Xcel's 2021 true-up proposal was initially filed on September 16, 2020 as part of Xcel's COVID-19 relief and recovery filing, in Docket Nos. E,G-999/CI-20-492 and E,G-002/M-20-716.

On April 2, 2021 the Commission issued its order approving the three true-ups and allowing a one-year delay in increasing nuclear decommissioning accrual. In its April 2, 2021 *Order Approving True-Ups With Modifications and Requiring Xcel to Withdraw Its Notice of Change in Rates and Interim Rate Petition*, (April 2 Order) the Commission included the following ordering points:

1. Xcel's Stay Out Proposal is approved as modified on the condition that Xcel comply with the commitments included in this order and withdraw its rate case filed in Docket No. E-002/GR-20-723.
2. Xcel's request to extend the 2021 sales true-up for all customers classes is approved.
3. Xcel's request to separately calculate the Other Sales to Public Authority (OSPA) Class's true-up is approved.
4. When Xcel seeks recovery of any 2021 sales true-up amounts, the Company must provide an option to calculate sales true-ups for Demand customers separately for each of the Demand classes based on the sales changes for that specific class.
5. The Commission does not authorize use of ADIT for the 2021 sales true-up.
6. Xcel must use actual 2021 sales revenues when calculating its 2021 sales true-up amount and must remove the language that states that the true-up will include all discounts and incentive rates approved by the Commission.
7. The recovery period for any Demand class surcharge is extended from 12 to 21 months.
8. Xcel's Minnesota jurisdictional earnings for 2021 are capped at a 9.06 percent ROE, and if Xcel's ROE is greater than 9.06, Xcel must return the excess earnings via the 2021 sales true-up.
9. Xcel's request to extend its capital and property tax true-ups for all customer classes is approved, with the exclusion of all Tranche 1 and electric vehicle rebates from the calculation.
10. For 2021, Xcel must maintain the annual decommissioning accrual at the \$14,030,831 per year amount currently included in base rates and maintain end-of-life accrual at the currently approved amount of \$2,087,026.
11. Xcel's continuation of the LED deferral is approved for one additional year (through 2021).

12. The Commission accepts Xcel's commitment to not seek recovery of all pandemic related costs, including bad debt costs, that are deferred and being tracked pursuant to the Order Approving Accounting Request and Taking Other Action Related to COVID-19 Pandemic issued on May 22, 2020 in Docket No. E,G-999/M-20-427, and to withdraw its request for deferral in that docket.
13. The Commission accepts Xcel's commitment to pay for \$17.5 million of bill credits proposed in the residential payment plan credit program filed in Docket No. E-002/M-20-760. Should any portion of the \$17.5 million not be used to pay for the costs of the program, Xcel commits the remaining funds to be used to fund similar programs at the Commission's discretion.
14. Xcel must file revised tariff language and any other documentation as needed to demonstrate compliance with this order.
15. The Commission hereby delegates authority to the Executive Secretary to vary time periods and approve notices for the duration of the proceeding in this docket and any other proceeding that stems from this matter.
16. This order shall become effective immediately.

On June 30, 2021, Xcel submitted a letter in Docket Nos. E002/GR-20-723 and E002/M-20-748 formally withdrawing its *Notice of Change in Rates and Interim Rate Petition* in accordance with Ordering Paragraph 1 of the April 2 Order.

On February 1, 2022, Xcel submitted its 2022 Sales Data and Related Revenue Calculations (Compliance Filing) in accordance with Ordering Paragraphs 1 through 7 of the April 2 Order.

On February 9, 2022 the Commission issued a *Notice of Comment Period* (Notice) on Xcel's Compliance Filing. The Commission listed the following topics as being open for discussion in comments:

- Does Xcel's filing comply with the Commission's April 2, 2021 Order and should it be accepted?
- Should Xcel be allowed to begin recovery of its 2021 sales true-up on April 1, 2022?
- How do Xcel's 2021 conservation savings compare with prior years?
- Are there other issues or concerns related to this matter?

The Minnesota Department of Commerce, Division of Energy Resource (Department) reviewed Xcel Energy's Compliance Filing on Sales Data and Related Revenue Requirements and submits these comments.

## II. DEPARTMENT ANALYSIS

### A. RESPONSE TO THE COMMISSION NOTICE – SALES TRUE-UP

#### 1. Does Xcel's filing comply with the Commission's April 2, 2021 Order and should it be accepted?

As mentioned above, Xcel's filing complies with Ordering Paragraphs 1 through 7 of the April 2 Order as described below, and as a result should be accepted.

The Department recommends that the Commission accept and approve the Company's Sales True-Up proposal for 2021 as outlined in Xcel's Compliance Filing, for the reasons discussed below.

#### 2. Should Xcel be allowed to begin recovery of its 2021 sales true-up on April 1, 2022?

The Department recommends that Xcel be allowed to begin recovery of its 2021 sales true-up on April 1, 2021.

The Company outlined the steps and the mechanics of the recovery of its sales true-up on pages 29-30 of its October 1, 2020 filing.<sup>2</sup>

In its Compliance Filing at page 2, Xcel stated the following:

Total actual 2021 retail sales for January-December 2021 are 28,814,203 megawatt hours (MWh). This represents a 4.8 percent decrease from 2016 test year weather-normalized retail sales as reported in our February 6, 2017 true-up compliance filing in Docket No. E002/GR-15-826. Attachment A to this filing provides a summary comparison between the January-December 2016 test year and 2021 sales and customer counts for all classes. The comparison is provided in monthly detail in Attachment B. Attachment C provides the related weather-normalization calculations.

In its Compliance Filing at pages 6-7, Xcel stated the following:

The total 2021 sales true-up amount before the prior year true-up charge is \$63.922 million. The sales true-up compares 2021 revenues to the revenues produced under test year 2016 sales plus the assumed Demand class revenue growth for year 2018.<sup>4</sup> The 2021 revenues are based on current rates that went into effect June 1, 2019 and include the impact of the reductions due to the Tax Cuts and Jobs Act.<sup>5</sup> The 2020 sales true-up adjustments also recognize estimated over-collections by class from the prior year's true-up. Including the prior year over-collected total true-up of \$4.495 million, the total 2021 sales true-up is \$59.427 million (inclusive of the non-decoupled revenue growth of \$9.916 million).<sup>3</sup>

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<sup>2</sup> See Xcel's October 1, 2020 Filing in Docket No. 20-743 (ID [202010-166988-01](#)).

<sup>3</sup> Company agreed to limit the 2021 Commercial and Industrial Demand Class growth to the 2018, 2019 and 2020 levels. See Docket No. E002/M-19-688, *Petition for Approval of True-Up Mechanisms*, page 10, item 3. See Docket No. E002/M-20-743,

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4. As defined in the August 16, 2016 Stipulation of Settlement, Attachment 5, point 2, Non-Decoupled Revenue Growth.
  5. In the Matter of a Commission Investigation into the Effects on Electric and Natural Gas Utility Rates and Services of the 2017 Federal Tax Act, Docket No. E,G999/CI-17-895, Order Responding to Changes in Federal Tax Law at 13 (December 5, 2018).

The current 2021 sales true-up varies by customer class. The Company separately calculated the Other Sales to Public Authority (OSPA) customer class true-up, pursuant to Order Point 3 of the Commission's April 2, 2021 Order in the present docket. The 2021 sales true-up will be credited or surcharged to customers through rate adjustment factors applied to bills for the 12-month period of April 1, 2022 through March 31, 2023. The Demand class rate adjustment factors will be applied to bills for a 21 month period of April 1, 2022 through December 31, 2023, pursuant to Order Point 7 of the Commission's Order. The calculation of class adjustment factors is provided in Attachment F, page 1 of 2.

In its Compliance Filing at pages 7-8, Xcel stated the following:

The surcharges and credits for the 2021 sales true-up are listed in the table 5 below. They will appear on applicable customer bills beginning April 1, 2022.

| Customer           | Sales Difference |         | Base Revenue Difference |         | Surcharge    |
|--------------------|------------------|---------|-------------------------|---------|--------------|
| Classification     | MWH              | Percent | \$1,000's               | Percent | Factor / kWh |
| Residential        | 653,456          | 7.58%   | \$63,696                | 7.19%   | -0.00736     |
| Commercial         | -67,006          | -7.63%  | -\$4,817                | -5.88%  | 0.00586      |
| Demand             | -2,000,859       | -9.74%  | -\$118,397              | -9.60%  | 0.00364      |
| Other Public Auth. | 2,943            | 4.59%   | \$363                   | 6.46%   | -0.00572     |
| Lighting-Metered   | -1592            | -4.37%  | -\$38                   | -2.09%  | 0.00110      |
| Interdepartmental  | -4,141           | -55.21% | -\$234                  | -54.75% | 0.03823      |
| <b>Total</b>       | -1,417,198       | -4.70%  | -\$59,427               | -2.69%  |              |

The Department's analysis indicates that the \$59.427 million referenced above is correct, since the Company's calculations associated with the actual 2021 retail sales are correct (the calculations of the base revenues incorporate the impacts of the Tax Cut and Jobs Act of 2017 or TCJA as discussed below). Xcel's calculations were based on normal weather and associated calculations that were used and approved in setting the 2017-2019 test year final present revenues and thus, base rates for 2021 remained unchanged as described in the Company's October 1, 2020 Stay Out Proposal for 2021.

Over the 2015 MYRP, the Demand class has had the largest MWh decline. This information can be seen in the Company's sales true-up compliance filings in the 2015 MYRP,<sup>4</sup> and discussed in the Department's comments analyzing the sales true-ups in Docket 15-826.<sup>5</sup> Reduction in sales to the Demand class accounted for over 99 percent of the overall declines in each year except 2020 and 2021.<sup>6</sup> In addition, Company Witness Jannell E. Marks, in her Direct Testimony in Xcel's 2019 MYRP stated that sales have been declining since 2009 due in part to "the loss of specific large customer loads from the customers' addition of combined heat and power operations" and "the loss of load for several Large Commercial and Industrial [LCI] customers in 2012-2013 and 2017-2018."<sup>7</sup>

#### B. XCEL'S CONSERVATION IMPROVEMENT PROGRAM RESULTS

In its *Errata* to its Compliance Filing, Xcel Energy at page 3 stated the following:

Actual C&I sales in 2021 decreased by 2,069,481 MWh from the weather-normalized 2016 Test Year sales. Changes between 2016 weather normalized sales and 2021 sales are the result of several factors: Demand Side Management (DSM) program savings achievements, customers adding combined heat and power (CHP) generation, customers either moving out of the service territory or reducing/shutting down operations, distributed solar generation, weakened economic conditions due to the COVID-19 pandemic, and the impact of local weather conditions on sales. As discussed above, warmer than normal weather contributed to this year's C&I sales levels by 180,001 MWh..

As shown in Table 1 below, cumulative business sector DSM achievements from 2017 through 2021 account for 2,074,957 MWh of C&I sales reductions from the 2016 Test Year sales.

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<sup>4</sup> Specifically in the February 1, 2018 Compliance filings (Attachments D through I; docket ID [20182-139685-01](#)), the Company's April 16, 2018 Reply Comments (Attachment A; ID [20184-142038-01](#)); in the Company's February 1, 2019 filing (Attachments D through J; ID [20192-149944-01](#)); and in the Company's January 31, 2020 filing (Attachments D through J; ID [20201-159963-01](#)) from the 2015 MYRP.

<sup>5</sup> See Department's April 4, 2018 Comments (ID [20184-141681-01](#)); March 4, 2019 Comments (ID [20193-150845-01](#)); and March 2, 2020 Comments (ID [20203-160874-02](#)) in Docket 15-826.

<sup>6</sup> For 2017 it was 99 percent ( $255,553/258,193 = 0.990$ ); 2018 - 99.6 percent ( $341,907/343,265 = 0.996$ ); 2019 - 99.6 percent ( $982,885/986,789 = 0.996$ ); 2020 - 95.2 percent ( $2,424,797/2,548,064 = 0.952$ , excluding the residential sales increase); and 2021 - 94.3 percent ( $2,000,859/2,120,977 = 0.943$ , excluding the residential sales and OPA increase).

<sup>7</sup> See November 1, 2019 Direct Testimony of Jannell E. Marks at pages 15 and 24 in Docket 19-564.

As shown in the following table (which is a reproduction of Table 1 from Xcel's filing), Xcel stated that its cumulative business sector DSM achievements from 2017 through 2021 account for 2,074,957 MWh of Commercial and Industrial (C&I) sales reductions from the 2016 Test Year sales.

**Table 2: NSP-Minnesota Annual Business Sector DSM Achievements (MWh)**

|                         | Incremental Business<br>DSM Achievements |
|-------------------------|--|
| 2017                    | 463,792                                  |
| 2018                    | 478,638                                  |
| 2019                    | 334,192                                  |
| 2020                    | 360,730                                  |
| 2021                    | 437,605                                  |
| Cumulative Achievements | 1,637,352                                |

In Attachment A of its Compliance filing, Xcel Energy provided the information below.

**Table 3: Average Customer Counts**

|                                  | 2016<br><u>Test Year</u> | 2021<br><u>Actual</u> | <u>Difference</u> | <u>Difference</u> |
|----------------------------------|--------------------------|-----------------------|-------------------|-------------------|
| Residential without Space Heat   | 1,097,234                | 1,145,405             | 48,171            | 4.4%              |
| Residential with Space Heat      | 33,873                   | 40,790                | 6,917             | 20.4%             |
| Small Commercial & Industrial    | 131,350                  | 135,608               | 4,258             | 3.2%              |
| Large Commercial & Industrial    | 503                      | 497                   | -6                | -1.2%             |
| Public Street & Highway Lighting | 4,392                    | 5,626                 | 1,234             | 28.1%             |
| Other Sales to Public Authority  | 2,056                    | 1,460                 | -596              | -29.0%            |
| Interdepartmental                | 13                       | 5                     | -8                | -64.1%            |
| Total Retail                     | 1,269,421                | 1,329,390             | 59,969            | 4.7%              |

Actual sales compared to 2016 Test Year sales are as shown below:

**Table 4: Actual Sales (MWh)**

|                                  | 2016<br><u>Test Year</u> | 2021<br><u>Actual</u> | <u>Difference</u> | <u>Difference</u> |
|----------------------------------|--------------------------|-----------------------|-------------------|-------------------|
| Residential without Space Heat   | 8,227,581                | 8,859,535             | 631,954           | 7.7%              |
| Residential with Space Heat      | 395,914                  | 416,625               | 20,711            | 5.2%              |
| Small Commercial & Industrial    | 13,289,254               | 12,221,784            | -1,067,470        | -8.0%             |
| Large Commercial & Industrial    | 8,159,184                | 7,157,573             | -1,002,011        | -12.3%            |
| Public Street & Highway Lighting | 134,901                  | 88,337                | -46,564           | -34.5%            |
| Other Sales to Public Authority  | 64,046                   | 66,989                | 2,943             | 4.6%              |
| Interdepartmental                | 7,500                    | 3,359                 | -4,141            | -55.2%            |
| Total Retail                     | 30,278,780               | 28,814,203            | 1,464,578         | -4.8%             |



The Company stated that in the 2016 test year, there were no Customer-operated combined heat and power (CHP) plants. However, over the past few years three customers have added CHP plants, which has contributed to the observed decline in Demand class sales. In addition, Xcel stated that a portion of the decline in C&I sales from 2016 to 2021 has been a result of customers either relocating out of the Minnesota service territory or reducing/shutting down operations.

The Company also has seen some reduction in C&I sales due to behind-the-meter solar generation (BTMG Solar). The table below provides the estimated MWh of BTMG Solar for 2016-2021. Total C&I MWh of BTMG Solar increased by 57,085 MWh from 2016 to 2020 (85,087 MWh – 28,002 MWh = 57,085 MWh).

**Table 5: NSP-Minnesota Behind-the-Meter Solar Generation (MWh)<sup>8</sup>**

|       | Small C&I MWh | Large C&I MWh | Total C&I MWh |
|-------|---------------|---------------|---------------|
| 2016  | 23,704        | 4,297         | 28,002        |
| 2017  | 23,624        | 3,341         | 26,964        |
| 2018  | 27,715        | 4,575         | 32,289        |
| 2019* | 39,228        | 3,383         | 42,611        |
| 2020* | 49,079        | 3,298         | 52,376        |
| 2021  | 76,355        | 8,732         | 85,087        |

**Table 6: LCI Classes Customers Energy Production and Sales Reductions<sup>9</sup>**

|                                      |  |  |  |  |
|--------------------------------------|--|--|--|--|
|                                      |  |  |  |  |
|                                      |  |  |  |  |
| [TRADE SECRET DATA HAS BEEN EXCISED] |  |  |  |  |

<sup>8</sup> In Docket No. E002/M-19-688, the 2019 numbers for Small C&I (SCI) was 41,400 MWh and the total was 44,783 MWh; the 2020 number for SCI was 60,581 MWh and for Large C&I it was 3,105 MWh for a total of 63,685 MWh. The Company's explanation for the different values for 2019 and 2020 is as follows:

\* The 2019 and 2020 DG solar figures have changed since the Company's 2020 sales true-up report, because the query used for the present filing reflects invoice adjustments that were not available when the query for the 2020 report was conducted.

<sup>9</sup> See Department Attachment 3.

It is important to remember that there will be differences between the 2016 test year and actual 2021 year's numbers given that there will be other changes for reasons including but not limited to:

- First, there could be customer gains and/or losses in the intervening periods;
- Second, there will be differences in economic and/or weather conditions between the base year and the comparison year(s); and
- Third, as mentioned above, there are factors such as CHP, and BTMG production that can be accounted for in a customer's historical consumption in addition to all of the incremental conservation that could account for the difference between what is embedded in the base year and the comparison year(s).

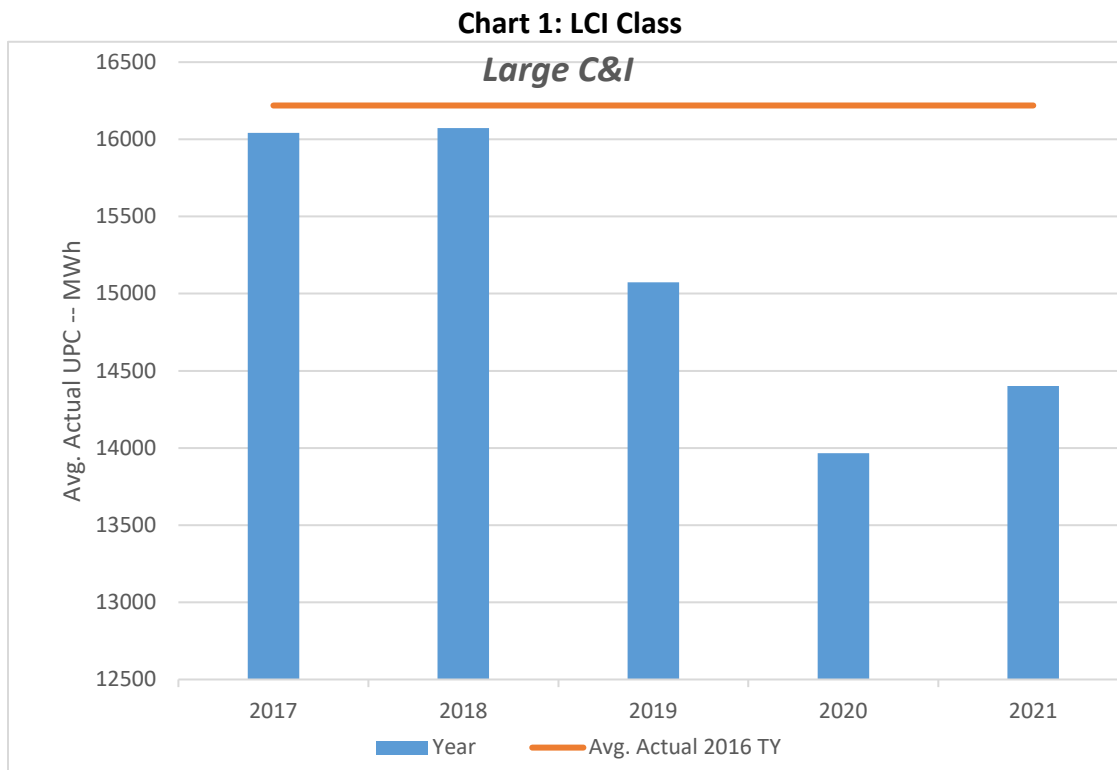
Thus, in summary the factors impacting the decline in the Demand class are as follows:

- customer-operated CHP generation;
- behind-the-meter (BTMG) solar generation;
- customers either relocating out of Xcel's Minnesota service territory or reducing/shutting down operations;
- potential customer growth that offsets part of the decline or potential customer decline; and
- differences in economic and/or weather conditions and, a combination of the Company's and/or customers' CIP Portfolio.

There are approximately 497 customers in the LCI category. The chart below shows the average total actual use per customer (UPC) in the 2016 test year versus the intervening period between 2017 and 2021. Of the factors that have contributed to the Demand class sales decline, for example, the installation of additional BTMG Solar facilities, could continue in 2022 and beyond, resulting in further sales decline.<sup>10</sup>

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<sup>10</sup> See Department Attachment 1.

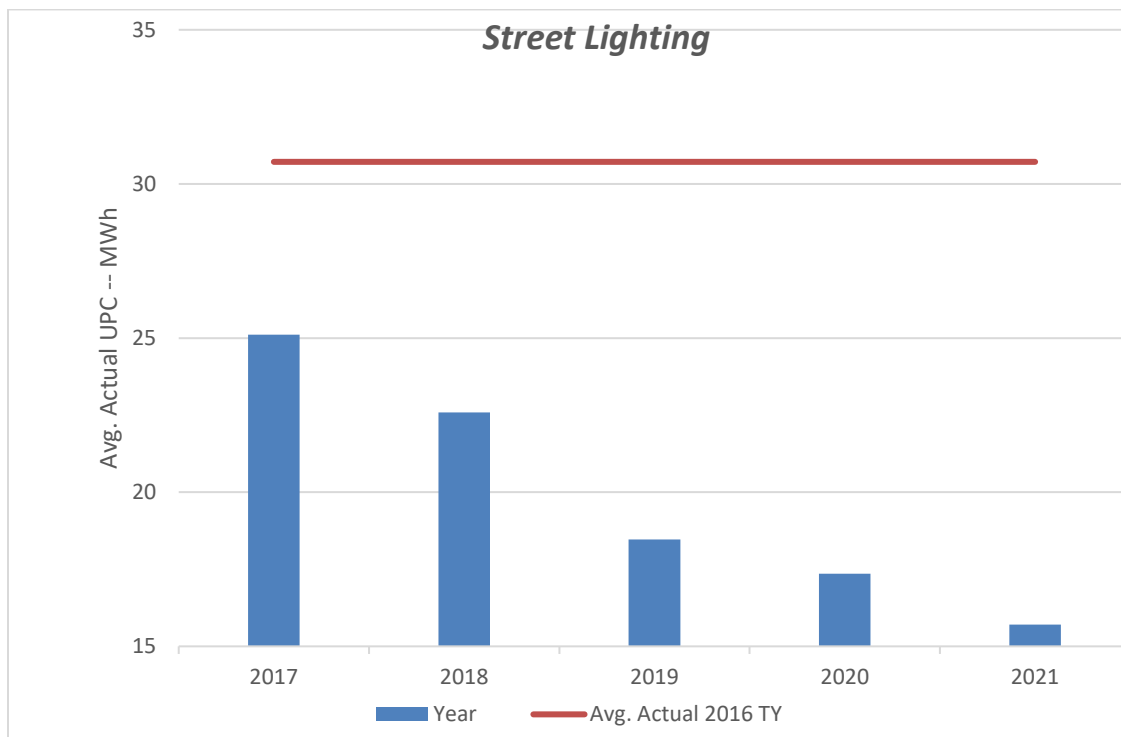


In addition, the Company stated the following at page 7 for the Lighting class:

The Lighting class surcharge factor was determined exclusively with information for the Street Lighting Energy Service – Metered rate schedule, for application only to this same rate schedule. All other lighting base rates are a fixed amount per lighting unit that separates base revenue collection from sales changes. This approach recognizes that the majority of the 2021 lighting sales reduction is associated with the LED conversion of fixed rate lighting and does not impact sales revenues. This approach is consistent with prior year sales true-up determinations.

The chart below compares actual 2016 Test Year sales to actual sales each year from 2017 through 2021.

Chart 2: Lighting Class<sup>11</sup>



**C. RESPONSE TO THE COMMISSION NOTICE – CIP ACHIEVEMENTS FOR 2021**

**1. How do Xcel's 2021 conservation savings compare with prior years?**

In its Compliance Filing, Xcel stated the following at page 1:

... We also provide information in Section D below regarding our Conservation Improvement Program (CIP) achievements in 2021, which comply with the Minnesota Department of Commerce's (DOC) July 1, 2020 Letter in Docket No. E002/M-20-180, addressing the streamlining of decoupling annual reports and the criteria required with these reports.<sup>2</sup>

<sup>2</sup> Proposed Streamlining for Annual Revenue Decoupling Evaluation Reports, Docket Nos. E002/M-20-180, G008/M-19-558, G004/M-20-335, and G011/M-20-332 (July 1, 2020), approved in the Commission's March 8, 2021 Order.

<sup>11</sup> For the rest of the classes, please see the associated data and charts in Department Attachment 2.

The Company filed its previous Annual Decoupling Reports (Reports) with the Commission in Docket No. E002/GR-13-868 (Docket 13-868) and Docket 15-826. The Commission considered the Company's 2017 Report at its January 31, 2019 Agenda meeting and in its February 6, 2019 Order directed the Company to file all of its future reports in separate dockets. On January 31, 2020, Xcel Energy filed with the Commission the 2019 Annual Decoupling Report in Docket No. E002/M-20-180 (Docket 20-180).<sup>12</sup>

At page 9 of its Compliance Filing, the Company further stated the following:

We provide discussion below addressing the DOC's recommendations for streamlining utilities' annual revenue decoupling evaluation reports to inform their narrative describing energy savings before and after implementing revenue decoupling, as detailed in the DOC's July 1, 2021 letter.

The Department observes that the Commission heard the above matter regarding streamlining the decoupling reports and the issues set forth in that docket, at its March 4, 2021 Agenda meeting. On March 8, 2021, the Commission issued its Order. The Department responds to the Commission's question below.

*i. Comparing Xcel's 2021 electric conservation savings with prior years.*

Table 7 below shows Xcel's first-year electric energy savings<sup>13</sup> pre-decoupling (2013-2015) and post-decoupling (2016-2021).<sup>14</sup>

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<sup>12</sup> On February 1, 2019, Xcel Energy filed with the Commission the 2018 Annual Decoupling Report in Docket No. E002/M-19-127 (Docket 19-127).

<sup>13</sup> First-year energy savings refer to how much energy is saved by an energy conservation improvement measure over the first 12 months of its installation.

<sup>14</sup> Xcel will file its annual CIP status report around April 1, 2022. The CIP staff will review Xcel's 2021 CIP achievements and the Deputy Commissioner will eventually release a Decision about whether Xcel's 2021 claimed energy savings are approved as filed or as modified.

*Comparing Xcel's 2021 First-Year Savings with Previous Year's First-Year Energy Savings*

**Table 7: Xcel's First-Year Electric Energy Savings  
Pre- and Post- Implementation of Revenue Decoupling**

|                  | Year           | Residential  | Commercial        | Demand         | Lighting        | Total          |
|------------------|----------------|--|-------------------|----------------|-----------------|----------------|
|                  |                | MWh  | MWh               | MWh            | MWh             | MWh            |
| Pre- Decoupling  | 2013           | 147,174  | 19,123            | 293,211        | 9               | 459,517        |
|                  | 2014           | 122,522  | 16,436            | 308,466        | 0               | 447,424        |
|                  | 2015           | 152,768  | 17,871            | 294,093        | 11              | 464,743        |
|                  | <b>Average</b> | <b>140,821</b>   | <b>17,810</b>     | <b>298,590</b> | <b>7</b>        | <b>457,228</b> |
| Post- Decoupling | 2016           | 167,826  | 20,002            | 323,577        | 56              | 511,461        |
|                  | 2017           | 170,973  | 23,336            | 417,630        | 81              | 612,020        |
|                  | 2018           | 177,759  | 26,189            | 428,611        | 51              | 632,610        |
|                  | 2019           | 171,454  | 22,379            | 297,284        | 14              | 491,131        |
|                  | 2020           | 244,776  | 25,575            | 329,645        | 39              | 600,035        |
|                  | 2021           | 272,991  | 27,851            | 369,975        | 17              | 670,834        |
|                  | <b>Average</b> | <b>200,963</b>   | <b>24,222</b>     | <b>361,120</b> | <b>43</b>       | <b>587,333</b> |
|                  |                |  |                   |                |                 |                |
|                  |                | <b>Average Post-Decoupling First-Year Savings/Average Pre-Decoupling First Year Energy Savings</b> |                   |                |                 |                |
|                  |                | <b>Residential</b>   | <b>Commercial</b> | <b>Demand</b>  | <b>Lighting</b> | <b>Total</b>   |
|                  |                | <b>MWh</b>   | <b>MWh</b>        | <b>MWh</b>     | <b>MWh</b>      | <b>MWh</b>     |
|                  |                | 43%  | 36%               | 21%            | 514%            | 28%            |

As illustrated in Table 7 above, Xcel's 2021 first-year energy savings exceeded the Company's highest total level (which had been 2018). Xcel achieved its highest ever energy savings in 2021 for the residential, commercial and demand customer classes. Table 7 also illustrates that when comparing the average post-decoupling first-year energy savings to the average pre-decoupling first-year energy savings:

- Residential average first-year energy savings increased 43 percent;
- Commercial average first-year energy savings increased 36 percent;
- Demand average first-year energy savings increased 21 percent;
- Lighting average first-year energy savings increased 514 percent; and
- Total average first-year energy savings increased 28 percent.

*ii. Comparing Xcel's 2021 First-Year Savings with Previous Year's First-Year Energy Savings*

Below, Table 8 shows the lifetime energy savings from 2016-2021 for each of the Company's customer classes and for the entire electric utility.

| Year           | Residential<br>Lifetime MWh<br>Saved | Commercial<br>Lifetime MWh<br>Saved | Demand<br>Lifetime MWh<br>Saved | Lighting Lifetime<br>MWh Saved | Total Lifetime<br>MWh Saved |
|----------------|--------------------------------------|-------------------------------------|---------------------------------|--------------------------------|-----------------------------|
| 2016           | 1,828,430                            | 284,674                             | 4,924,728                       | 902                            | 7,038,734                   |
| 2017           | 1,192,618                            | 300,416                             | 6,503,907                       | 1,328                          | 7,998,269                   |
| 2018           | 1,192,866                            | 350,965                             | 6,788,550                       | 852                            | 8,333,233                   |
| 2019           | 1,046,309                            | 281,947                             | 4,745,718                       | 227                            | 6,074,201                   |
| 2020           | 3,626,520                            | 425,126                             | 5,443,707                       | 675                            | 9,496,028                   |
| 2021           | 4,061,961                            | 495,818                             | 6,150,499                       | 763                            | 10,709,041                  |
| <b>Average</b> | <b>2,158,117</b>                     | <b>356,491</b>                      | <b>5,759,518</b>                | <b>791</b>                     | <b>8,274,917</b>            |

From the review of Table 8 above, the Department notes that:

- Xcel's total 2021 lifetime energy savings were the highest they have ever been; and
- All of Xcel's 2021 lifetime energy savings were the highest they have ever been for every customer class except for the Lighting customer class.

*D. ORDERING PARAGRAPH NO. 14*

Ordering Paragraph No. 14 of the Commission's April 2 Order states that "Xcel must file revised tariff language and any other documentation as needed to demonstrate compliance with this order." The Company did not file any "revised tariff language" to comply with Ordering Paragraph No. 14 of the Commission's April 2 Order. However, the Company provided information in Attachment N of the Compliance Filing. The Department recommends that Xcel comply with ordering Paragraph 14 by filing its "revised tariff language" in its Reply Comments.

*E. ORDERING PARAGRAPH NO. 4*

Ordering Paragraph No. 4 of the Commission's April 2 Order states that "the Company must provide an option to calculate sales true-ups for Demand customers separately for each of the Demand classes based on the sales changes for that specific class." The Company complied with Ordering Paragraph No. 4 of the Commission's April 2 Order by providing the information in Attachment M of the Compliance Filing.

*F. RESPONSE TO THE COMMISSION NOTICE – ARE THERE OTHER ISSUES OR CONCERNS RELATED TO THIS MATTER?*

Ordering paragraph No. 8 of the Commission’s April 2 Order states that “Xcel’s Minnesota jurisdictional earnings for 2021 are capped at a 9.06 percent ROE, and if Xcel’s ROE is greater than 9.06, Xcel must return the excess earnings via the 2021 sales true-up.” However, in the Commission’s June 14, 2021 *Order Denying Reconsideration*, (June 14 Order) the Commission included the following ordering points:

1. The Commission hereby denies XLI’s petition for reconsideration.
2. The Commission hereby requires Xcel to hire, at its own expense, an independent auditor to evaluate its 2021 return on equity and file a copy of the independent auditor’s evaluation by May 15, 2022.
3. Xcel must report improvements to its validation procedures and must hire, at its own expense, an independent auditor to review the Company’s validation procedures and resulting revenue requirement deficiency in its next general rate case filing.
4. This order shall become effective immediately.

Thus, the Company’s compliance with Ordering Paragraph No. 8 of the Commission’s April 2 Order cannot be determined until after Xcel complies with Ordering Paragraph 2 of the Commission’s June 14 Order. This issue can be addressed through compliance with Ordering Paragraph No. 15 of the Commission’s April 2 Order.

*G. REFLECTION OF TCJA IMPACT BY ADJUSTING THE SALES TRUE-UP CALCULATIONS*

On December 22, 2017, the President of the United States signed into law Pub L. 115-97 (H.R. 1—115th Congress: An Act to provide for reconciliation pursuant to Titles II and V of the concurrent resolution on the budget for fiscal year 2018), which is referred to as the 2017 Federal Tax Act, or the Act. It is also commonly referred to as the Tax Cut and Jobs Act of 2017 or TCJA. Among other things, the Act lowered the federal corporate income tax rate from 35 percent to 21 percent, effective January 1, 2018. The Commission opened Docket No. E,G999/CI-17-895 (Docket 17-895) seeking information and comments.

On December 5, 2018, the Commission issued its *Order Responding to Changes in Federal Tax Law* (17-895 Order). The Department has previously discussed in detail the Company’s compliance with Commission’s 17-895 Order and will not repeat that discussion here.<sup>15</sup>

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<sup>15</sup> See Department’s April 4, 2018 Comments (ID [20184-141681-01](#)); March 4, 2019 Comments (ID [20193-150845-01](#)); and [March 2, 2020 Comments \(ID 20203-160874-02\)](#) in Docket 15-826. See the Department’s March 1, 2021 Comments in Docket 19-688 (ID [20213-171458-02](#) ).



The Department concludes that Xcel's sales true-up is consistent with the Commission's decisions in Docket 17-895.

### **III. DEPARTMENT RECOMMENDATION**

Consistent with prior decisions in this proceeding, the Department recommends that the Commission approve Xcel Energy's compliance filing to include a net surcharge of \$59,427,000. The majority of this net surcharge is due to the decrease in sales in the Demand class, as discussed in detail above. The Department recommends that Xcel comply with ordering Paragraph 14 by filing its "revised tariff language" in its Reply Comments. The Department concludes that Xcel's compliance with Ordering Paragraph No. 8 of the Commission's April 2 Order cannot be determined until after the Company complies with Ordering Paragraph 2 of the Commission's June 14 Order. This issue can be addressed through compliance with Ordering Paragraph No. 15 of the Commission's April 2 Order.

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3/1/22, 11:43 AM

Rosemount refinery gets city approval for massive on-site solar plant

Pioneer Press, St. Paul, Minn.

## Rosemount refinery gets city approval for massive on-site solar plant



**Nick Ferraro, Pioneer Press, St. Paul, Minn.**

February 22, 2022 · 1 min read



Feb. 22—Rosemount has approved an interim-use permit for Flint Hills Resources to construct a large on-site solar plant to generate electricity and reduce its energy costs at its Pine Bend refinery on U.S. 52 in Dakota County.

Flint Hills says the 45-megawatt solar development would be among the largest of its kind in the United States where all the power is generated and consumed by a single business.



The solar development would be located west of the refinery on 207 acres of farmland owned by Flint Hills, which has a 314-acre site divided by Rich Valley Boulevard/Blaine Avenue.

Last year, the company said it had requested bids from select solar companies that specialize in building commercial-scale solar farms and integrating them within established operations.

Jake Reint, vice president of public affairs for Flint Hills, told the city council last week the company will decide in the next few months whether to proceed with the project.

In 2019, the refinery brought online a combined heat and power system, which produces about 50 megawatts of electricity or roughly 40 percent of what is required to power the refinery's daily operations.

"Together, these two projects will provide more than half of our power in a very, very efficient and a very clean manner," Reint said.

The company's hope is to begin construction this year and complete construction in 2023, he said.

3/1/22, 11:40 AM

Flint Hills' Pine Bend refinery produces more fuel with less pollution - StarTribune.com

# Flint Hills' Pine Bend refinery produces more fuel with less pollution

FEBRUARY 13, 2022 — 2:00PM



Neal St. Anthony  
@STANTHONYSTRIB

There's an adage that underlies investments Flint Hills is making to cut pollution emissions at its Pine Bend refinery, which produces most of the transportation fuels consumed in Minnesota.

You no longer smell the huge refinery in Rosemount before you see it.

Since Minnesota regulators fined Pine Bend \$6.9 million in 1998 for spills and oil leaks into the nearby Mississippi River, Flint Hills has invested about \$2 billion in emission control and efficiency technology, as well as restoring 1,600 acres of the Pine Bend Bluffs nature preserve along the Mississippi River.

The huge facility has lowered emissions of traditional pollutants by about 70% as it increases production of diesel, gasoline, jet fuel, asphalt and other petroleum-based products. In 2021, it also received the U.S. Environmental Protection Agency's Energy Star certification as a top-quartile performer among refineries for energy efficiency.

Still, Pine Bend remains among Minnesota's Big 10 emitters of greenhouse gases (GHG), the driver of climate change that results in increasing numbers of environmental disasters that also are economically devastating nationally.

Minnesota Pollution Control Agency (MPCA) statistics reveal that Pine Bend's greenhouse emissions grew 9% between 2012 and 2020. However, the emissions declined nearly 6% since 2010 on a per million-barrels-of-product basis. Pine Bend production rose 20.6% from 2010 to 2021, or 316,000 barrels per day of product.

Pine Bend in 2019 completed a generator that uses natural gas and biowaste to provide 40% of the electric energy needed to power the refinery. Even though that increased carbon emissions somewhat, the generator pollutes less than the power Pine Bend was taking off the electric grid. It also is constructing a solar plant to raise to 50% its internal power generation.

Another innovative technological play allows Pine Bend to convert sulfur pollution emitted from motor fuel refining into a liquid fertilizer product for area farmers.

"This technology also helps us meet the federal government's requirements for producing lower-sulfur, cleaning burning fuels," said Jake Reint, a Pine Bend vice president. "This new technology also resulted in a slight increase in GHG emissions."

ADVERTISEMENT



GLEN STUBBE, STAR TRIBUNE

Jeremy Bertsch, an engineering manager for at Flint Hills oil refinery in Rosemount, worked in 2019 on a 50 megawatt power plant that

John Linc Stine, former head of MPCA under Gov. Mark Dayton, said: "They were operating as one of the dirtiest of the dirty in the early 2000s. They are now a corporate leader ... and role model for other refineries."

3/1/22, 11:40 AM

Flint Hills' Pine Bend refinery produces more fuel with less pollution - StarTribune.com

Pine Bend's parent company, Flint Hills Resources, is a Koch Industries subsidiary, long resistant to regulations and pollution controls. However, Pine Bend, which employs 1,000 workers in Rosemount, has become one of the most efficient and cleanest refineries in a dirty business.

"We continue to invest in new technologies that can improve our performance, improve efficiency of our operations and reduce emissions associated with the crude oil we process to produce products people ... will need for a very long time," Reint said.

Bill Droessler, an attorney who formerly administered pollution-disaster Superfund sites, has worked as a program officer with Minneapolis-based Environmental Initiative since 2003.

He credits Pine Bend, also an "EI" member, with investing in pollution-abatement programs on its campus and elsewhere, including Project Green Fleet, the yearslong cleanup of 1,000 old Minnesota school buses that spewed dirty diesel fumes.

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**Neal St. Anthony** has been a Star Tribune business columnist/reporter since 1984.

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## EXECUTIVE SUMMARY

City Council Regular Meeting: February 15, 2022

|  |                                     |
|--|-------------------------------------|
| <b>AGENDA ITEM:</b> Request by Flint Hills Resources for an Interim Use Permit to Construct a Solar Facility on 314 acres west and southwest of its Pine Bend Refinery   | <b>AGENDA SECTION:</b> New Business |
| <b>PREPARED BY:</b> Anthony Nemcek, Senior Planner   | <b>AGENDA NO.</b> 9.a.              |
| <b>ATTACHMENTS:</b> DRAFT Interim Use Permit; Excerpt from the January 25, 2022, Planning Commission Meeting Minutes; Site Location; Preliminary Site Plan   | <b>APPROVED BY:</b> LJM             |
| <b>RECOMMENDED ACTION:</b><br><br><b>Motion</b> to adopt a resolution approving an interim use permit for Flint Hills Resources to construct a Solar Facility on 314 acres west and southwest of its Pine Bend Refinery, subject to the conditions listed in the Interim Use Permit. |                                     |

### SUMMARY

|                          |  |
|--------------------------|--|
| Applicant:               | Flint Hills Resources  |
| Location:                | North of 140 <sup>th</sup> Street East and east of Blaine Avenue AND north of Bonaire Path and west of Blaine Avenue |
| Area in Acres:           | 314 Acres  |
| Comp. Guide Plan Design: | AG – Agriculture, LI-Light Industrial, GI-General Industrial   |
| Current Zoning:          | AG – Agriculture and HI – Heavy Industrial   |

The City Council is being asked to consider a request by Flint Hills Resources (FHR) for approval of an Interim Use Permit (IUP) to construct a solar facility on 314 acres of applicant-owned land located west and southwest of the Pine Bend Refinery. The system will generate up to 45MW of electricity for use by the refinery. Typically, accessory solar systems are approved administratively by staff via the building permit process. Because of the large size of the proposed facility and the potential for conflicts with future development patterns, staff directed the applicant to apply for an interim use permit with a term of 25 years to allow the City to reassess the conditions of the permit as well as development patterns in the surrounding area. The land on which the facility will be constructed is owned by the applicant and located within an area that the applicant has indicated will be maintained as a buffer between the refinery and the developing portion of the City. Therefore, staff is not anticipating future development in the vicinity of the site. This request is unusual in that the size of the project falls under the threshold that would require a site plan review given the vastness of the refinery, and solar systems that are accessory to a principal use do not require an IUP. The plans provided by the applicant are very preliminary, but the applicant is seeking IUP approval prior to devoting the significant resources to the development of materials that will be needed by various agencies to review.

Because the project area is greater than 100 acres, an environment assessment worksheet (EAW) must be produced to ascertain whether an environmental impact statement (EIS) will be required. The City's consultant, WSB, is working with the applicant on the drafting of the EAW. Acceptance of the EAW is

included as a condition of approval. Additionally, the applicant will be producing a tree inventory as part of its grading permit application. Submittal of that document is also listed as a condition of approval, although staff does not anticipate any required tree replacement due to the three large stands of trees that the applicant is leaving untouched as part of the project. The applicant does have an ongoing tree planting program through which over 1,000 trees are planted each year, which likely aligns with the intent of the tree preservation ordinance. The Planning Commission and staff are recommending approval of the request.

### **PLANNING COMMISSION ACTION**

The Planning Commission held a public hearing during its meeting on January 15, 2022, to review the request and receive public comment. The commission received comments from one resident with concerns about traffic along the unpaved portion of Bonaire Path. It's the understanding of staff and the applicant, that traffic bringing construction materials to the site would use Blaine Avenue/Rich Valley Boulevard for access. The Commission wondered whether the applicant had considered building the solar facility vertically to reduce the amount of land used by the project. The Commission also inquired about the process in the case that tree removal exceeded what was expected. Staff provided a brief explanation that if the total amount of trees removed exceeded the threshold that would trigger replacement, the applicant would work with staff to identify the amount and location of replacement trees.

The Planning Commission voted unanimously to recommend City Council approve the Interim Use Permit to allow Flint Hills Resources to construct a solar facility on 314 acres west and southwest of its Pine Bend Refinery.

### **BACKGROUND**

#### **Ordinance Creation**

In March of 2014, the City Council approved Ordinance B-229 related to Alternative Energy Systems. Prior to approval both the Planning Commission and City Council reviewed the ordinance during multiple meetings. During this review the City Council expressed concerns with proposed height and screening standards. In the end, the Council directed staff to revise the ordinance to require ground mounted solar energy systems, community solar gardens or solar farms be screened from view of the public right-of-way *to the extent possible* without reducing their efficiency by setback, berming, landscaping, walls or a combination thereof.

#### **Facility Description**

The solar project area will consist of individual solar modules and support equipment surrounded by fencing. There is significant existing vegetation along the east side of Blaine Avenue/Rich Valley Boulevard that will be retained as it provides screening of the refinery. The applicant has indicated that they will provide screening in the form of trees wherever it will not impact the efficiency of the solar panels. A condition of approval is included that a formal landscape plan be submitted for staff review prior to issuance of a building permit for staff to calculate the necessary landscape surety as required by City Code. Because the project straddles multiple public roadways, there will be several access points into the different parts of the facility. The applicant is planning to install tracking solar panels that move with the position of the sun to generate the greatest amount of energy possible. The foundations will likely be a driven steel pier and typically do not require concrete. Concrete pads or footings may be required for the inverter skids. Areas of bare ground at the facility will be re-vegetated with a low-growing seed mix that will include plant varieties that attract pollinators. Because the existing use of the site is agricultural in nature, restoring the entire site's vegetation to native plants will be a lengthy process that will occur in coordination with other restoration activities initiated by the applicant.

## ISSUE ANALYSIS

### Legal Authority

Interim use permit requests are considered a quasi-judicial action. In such cases, the City is acting as a judge to determine if the regulations within the Comprehensive Plan, Zoning Ordinance and Subdivision Ordinance are being followed. Generally, if the application meets these requirements it must be approved. The applicable standards, along with staff findings related to each are provided below.

### Interim Use Permit Review

Interim Use Permits are intended to permit the temporary use of a property for a specific use until a particular date, the occurrence of a particular event, or if zoning regulations no longer permit the proposed use. The general standards and findings necessary for reviewing an IUP application are outlined in Section 11-10-08 and detailed below. The City must approve or deny each IUP request based on review of these criteria. Should the City approve an IUP request, it may attach conditions to mitigate anticipated adverse impacts associated with the use, ensure compliance with the standards of approval, protect the value of other property, and achieve the goals and objectives of the comprehensive plan.

### *Setbacks and Height*

The proposed project lies within the AG and HI zoning districts. The AG district contains a minimum 50' front yard and 30' rear and side yard setbacks. The HI district requires a minimum setback of 75' for all structures under 35' in height. The plans provided by the applicant indicate setbacks ranging from 97' to 191' at all property boundaries facing a public right of way. All adjacent parcels are owned by the applicant, and even greater setbacks are provided from those property lines.

The maximum height for ground mounted solar systems is 15'. The applicant provided an elevation showing the maximum height of the panels to be 14'. Because the solar panels will track the sun, the height of the panels will be 9' when they are in a horizontal position.

***Screening.*** The Alternative Energy Systems ordinance requires ground mounted solar systems be screened from view of the public right-of-way to the extent possible without reducing their efficiency by setback, berming, landscaping, walls or a combination thereof. The applicant has indicated that due to the use of tracking solar panels that would utilize a wider angle of the sun's rays, particularly in the morning and evening hours, they have concerns about the ability to provide screening that wouldn't affect the efficiency of the panels. At the time the ordinance was adopted, City Council had concerns about the visual impact of solar panels in the southeastern, agricultural part of the city. Staff believes that the proposed project is different due to its location adjacent to the refinery on land owned by the applicant to be used as a buffer, and the screening requirements are not as impactful or necessary. Nevertheless, the applicant has indicated a willingness to provide additional trees where practicable, and a formal landscape plan will be submitted for staff review in order to calculate the amount of any required landscape surety.

***Landscaping & Tree Preservation.*** The applicant is requesting IUP approval prior to dedicating the resources to producing full civil plans. Because several large stands of trees are being preserved as part of this project, combined with the applicant's ongoing process of planting over 1,000 trees each year on its property, staff is comfortable recommending approval of the IUP with the understanding that a tree inventory of the project area will be conducted and submitted with a required grading permit.

Staff also discussed providing pollinator-friendly ground cover on the site, and the applicant agreed that those areas of bare ground will be re-vegetated with a low-growing, pollinator-friendly seed mix. Areas that will not be graded will still contain remnant vegetation related to the current agricultural use on the site. Restoring those areas to native plants will be a much longer and more difficult task, which will occur over time with other restoration activities on FHR-owned land. Most recently those activities have taken place on the east side of Highway 52. The applicant has indicated that they look forward to expanding those efforts westward through and beyond the proposed project area.

**Access & Parking.** The applicant's plans illustrate accesses to each portion of the site consistent with City standards. The plans illustrate four accesses from Blaine Avenue/Rich Valley Boulevard. Rosemount's parking regulations do not list specific off-street parking for the proposed solar facility use. However, the applicant's plans include maintenance and monitoring areas. Maintenance will be conducted by FHR employees based within the refinery boundary. As a result, staff recommends a condition of approval require the applicant to provide sufficient parking that will ensure the access roads remain clear in case of emergencies. Parking within those roads will not be permitted so emergency vehicles will have full access to the site while maintenance activities are taking place.

**Feeder Lines.** According to the applicant's plans, all cables and power lines will be buried within the project consistent with City requirements. Xcel Energy operates and maintains the distribution system which may be above ground.

**Compliance.** The Alternative Energy ordinance requires all solar energy project to comply with all applicable building, electrical and plumbing codes. The applicant's states they will comply with these requirements and apply for all necessary permits.

**Certification.** The City's Alternative Energy ordinance requires solar electric system components to be certified by Underwriters Laboratories, Inc. and the applicant has pledged to submit this certification prior to construction. Staff recommends a condition of approval require the applicant to submit a certification from Underwriters Laboratories, Inc. prior to receiving a building permit. The city reserves the right to deny a building permit for proposed solar energy systems deemed to have inadequate certification.

**Abandonment.** The City's Alternative Energy ordinance deems any solar energy system remaining nonfunctional or inoperative for a continuous period of one year is abandoned and shall constitute a public nuisance. Staff recommends a condition of approval require removal any system deemed abandoned at landowner's expense after a demolition permit has been obtained. Removal includes the entire structure including transmission equipment.

**Signage.** The applicant's plans show no ground or building signage. All signs shall meet the requirements of the AG – Agricultural and HI-Heavy Industrial district and shall not be installed without first receiving approval of an administrative sign permit.

**Exterior Lighting.** The applicant's plans do to not include a lighting plan. If the applicant intends to install any security or maintenance lighting, staff recommends a condition of approval that requires the applicant to submit a detailed lighting plan and cut sheet for all light fixtures consistent with the City's lighting standards with any building/electrical permit.

**Engineering.** As has been previously stated, the applicant wishes to receive IUP approval prior to dedicating the resources to civil plan development. There are several layers of review that remain before the proposed solar facility can be constructed, including a stormwater review as part of the grading permit application, building and electrical permits that must be applied for and reviewed, and an EAW must be completed and accepted following a public comment period. The City's engineering staff has conducted a preliminary review and found that there is no planned infrastructure within the project boundaries, and therefore the proposed project will not impact future plans for the provision of sewer, water, and stormwater management to the east side of the City.

#### **Findings for Interim Use Permits**

1. The extent, location, and intensity of the use will be in substantial compliance with the comprehensive plan.



**Findings:** The proposed project is consistent with the Comprehensive Plan. First, the proposed project is consistent with one of the ten guiding principles of the Comprehensive Plan, which is to *"Incorporate sustainability precepts into development decisions to move toward a more resilient community."* Second, the requested rezoning is consistent with an energy infrastructure goal of Chapter 7: Resilience within the Comprehensive Plan, which is to *"Look for opportunities to remove barriers and increase renewable energy use in order to strengthen and diversify the energy grid and mitigate climate related impacts."*

2. The use will provide adequate ingress and egress to minimize traffic congestion in the public streets.

**Findings:** The applicant's plans illustrate two accesses to the site consistent with City standards. The plans illustrate access points to each segment of the facility from Blaine Avenue/Rich Valley Boulevard which are sufficient for the level of traffic generated by the proposed use.

3. The use will not be detrimental to the existing character of the development in the immediate neighborhood or endanger the public health, safety, and general welfare.

**Findings:** The proposed solar facility use will not be detrimental to the existing character of the development in the immediate neighborhood or endanger the public health, safety, and general welfare. The proposed solar facility is consistent with the land use designation and goals and objectives of the comprehensive plan.

4. The use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.

**Findings:** Staff is recommending a 25-year term to the IUP for the proposed solar facility and, while located within the MUSA, the land on which the project will be constructed is in an area the applicant intends to maintain an undeveloped buffer between its Pine Bend Refinery and development to the west. Should the applicant's plans for this area change, the term of the IUP will allow the City to reassess the appropriateness for such a use at the end of the 25-year period.

5. The use shall, in all other respects, conform to the applicable regulations of the district in which it is located.

**Findings:** With a few exceptions, the proposed project meets or exceeds the performance standards for solar farms. Areas of non-compliance are addressed through specific conditions of approval detailed in the Recommended Action section of this report to be reviewed prior to the issuance of building, electrical, and grading permits.

## RECOMMENDATION

The Planning Commission and staff recommend approval of the interim use permit (IUP) application from Flint Hills Resources to allow construction of a solar facility on land east of its Pine Bend Refinery, subject to conditions. This recommendation is based on the materials submitted by the applicant and the findings made in this report. The project area is a total of 314 acres with the solar facility comprising 207 acres within it. Staff is recommending a 25-year term for the IUP subject to the conditions and review timeline included in the permit. Should the City approve the project, the site will be used to generate energy to support the operations at the refinery.

Staff and the applicant are excited about this project as it will increase the efficiency of the refinery's operations and will help the City reduce its overall greenhouse gas emissions and meet its stated goal of becoming a more resilient community.

**CITY OF ROSEMOUNT  
DAKOTA COUNTY, MINNESOTA**

**RESOLUTION 2022- 25**

**A RESOLUTION APPROVING AN INTERIM USE PERMIT FOR FLINT HILLS  
RESOURCES TO CONSTRUCT A SOLAR FACILITY**

**WHEREAS**, the Community Development Department of the City of Rosemount received an application from Flint Hills Resources requesting an Interim Use Permit (IUP) to develop a solar facility on three hundred fourteen acres located generally North of 140<sup>th</sup> Street East and East of Blaine Avenue and North of Bonaire Path and West of Blaine Avenue.

**WHEREAS**, on January 25, 2022, the Planning Commission of the City of Rosemount held a public hearing to review the above stated application; and

**WHEREAS**, the Planning Commission adopted a motion to recommend that the City Council approve the Interim Use Permit for Flint Hills Resources, subject to conditions listed in the Interim Use Permit; and

**WHEREAS**, on February 15, 2022, the City Council of the City of Rosemount reviewed the Planning Commission's recommendation for the Interim Use Permit and agreed with the Planning Commission's recommendation.

**NOW, THEREFORE, BE IT RESOLVED**, the City Council of the City of Rosemount hereby approves the Interim Use Permit for Flint Hills Resources to construct a solar facility south and west of its Pine Bend Refinery, subject to the conditions listed in the Interim Use Permit

**ADOPTED** this 15<sup>th</sup> day of February, 2022, by the City Council of the City of Rosemount.

---

William H. Droste, Mayor

**ATTEST:**

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Jessie Paque, Deputy City Clerk

**Flint Hills Resources Interim Use Permit Conditions  
For A Solar Energy System**

This Interim Use Permit (IUP) is valid only for the property legally described in Attachment A, herein after “the Project Area.”

1. The IUP will be in effect for 25 (twenty-five) years from the date of full commissioning of all solar gardens within the Project Area or December 31, 2023, whichever occurs first.
2. The operation of the community solar garden shall comply with all applicable zoning standards and the approved site plan attached as Exhibit B.
3. The project area shall be subject to all requirements under city code and policies related to such developments, improvements and requirements governing interim use permits in state law and the city code.
4. All site improvements shall be reviewed by the City Engineer for approval prior to completion in accordance with City standards including grading permits.
5. An environmental assessment worksheet shall be provided by the applicant for review by the appropriate agencies and accepted by the City.
6. The applicant shall submit a landscape plan and associated surety in the amount of 110% of the proposed landscaping cost prior to building permit approval.
7. Applicant shall apply for and receive a grading permit prior to construction.
8. The applicant shall conduct a tree inventory and submit for review with a grading permit application. Any required tree replacement shall be included in a landscape plan.
9. Applicant shall provide sufficient parking were appropriate to ensure access roadways remain clear for emergency vehicles.
10. Ground or wall signs shall be approved through a separate permit.
11. If lighting will be provided, the applicant shall submit a detailed lighting plan and cut sheet for all light fixtures consistent with the City’s lighting standards as part of its building or electrical permit submission.
12. Submission of a certification from Underwriters Laboratories, Inc., or other appropriate certification as determined by the city, prior to receiving a building permit. The city reserves the right to deny a building permit for proposed solar energy systems deemed to have inadequate certification.
13. Any solar energy system remaining nonfunctional or inoperative for a continuous period of one year shall be deemed abandoned and shall constitute a public nuisance. The owner shall remove the abandoned system at their expense after obtaining a demolition permit. Removal includes the entire structure including transmission equipment.
14. There shall be no assignment of the interim use permit without the written approval of the City. The permittee will be responsible for all requirements of this permit and all applicable City ordinances for the permit period unless the permittee gives sixty (60) days prior written notice to the City of termination and surrenders the permit to the City.

15. The permittee shall grant to the City, its agents, employees, officers and contractors, including agents, employees and contractors of any surety, an irrevocable license, in a form approved by the City Attorney, to enter the property to perform all work and inspections deemed appropriate by the City to enforce conditions or to perform work as a result of the permittee's default. This license shall continue in effect until all conditions imposed by the City have been complied with.
16. The permittee will reimburse the City for any costs incurred as a result of any necessary inspections to ensure that the conditions of the permit are being satisfied and any costs incurred as a result of enforcing the permit.
17. The permittee shall hold the City harmless from all claims or causes of action that may result from the granting of the permit. The permittee shall indemnify the City for all costs, damages or expenses, including but not limited to attorneys' fees that the City may pay or incur in consequence of such claims.
18. Conformance with all requirements of all other applicable regulatory agencies including, but not limited to, Dakota County and the State of Minnesota.

**5.c. Request by Flint Hills Resources** for an Interim Use Permit to Construct a Solar Facility on 314 acres West and Southwest of its Pine Bend Refinery. **(22-03-IUP)**

Senior Planner Nemcek gave a presentation and summary of the staff report for the Planning Commission.

Vice-Chair Reed inquired about what the approval process would be to obtain an Environmental Assessment Worksheet (EAW). Nemcek stated that once the EAW is complete it will be reviewed by WSB Engineering and then would be brought to the City Council. The grading permit will be reviewed, along with the stormwater review. The UL certification is completed by a third party organization. They will review that the land doesn't have to always be a solar facility.

Commissioner Thiagarajan inquired if there is any consideration for the layout of the solar facility to go vertical instead of horizontal. Because it covers such a large area of land.

Commissioner Marlow questioned what would happen after the facility is running. If Flint Hills determines that any surrounding trees is affecting the solar panels, would they be able to take them down or would they have to come back to the City for approval. Nemcek stated that if a developer anticipates to move faster, they will have to submit a tree inventory. If they do need to take down additional trees, they would need to try and keep the number of trees below the threshold to where any replacements would be required. If they do go over the threshold, they would be replaced in accordance with the City code.

The public hearing opened at 7:14 pm.

**Public Comments:**

Jake Reint, 681 Lexington Parkway South, St. Paul, Flint Hills Resources, stated that the proposed location for the project is in an efficient location from the refinery. The project is anticipated to provide about an average of 40% of the refinery power.

Commissioner Hebert questioned about the construction timeline and how it will impact surrounding neighbors. Mr. Reint stated that the project would start in a few months and would hopefully be complete by summer 2023.

Commissioner Thiagarajan questioned why the project is laid out horizontal instead of vertical. Mr. Reint stated that the proposed layout is their first plan. They need it as close to Flint Hills Refinery as possible. If they would change the layout to vertical, the solar garden would then be closer to residential neighborhoods. They will retain their buffer property and try to continue having as much space between the refinery and neighbors.

Commissioner Schmisek questioned if noise will be an issue. Mr. Reint stated that they are not expecting them to be noisy. They will be quite a bit quieter than the refinery.

Commissioner Reed stated that he likes that the plan includes a pollinator friendly groundcover. Reed questioned what the landscape buffer they would be using. Mr. Reint stated that Flint Hills are currently getting suggestions from environmental organizations. The plan is to open up a second flank for ecological work and try to maintain the habitat.

Anthony Darsow, 1770 Bonaire Path, stated that he is concerned about additional dust from the Bonaire Path dirt road during construction of the solar facility.

**MOTION** by Reed to close the public hearing.

**Second** by Rivera.

Ayes: 6. Nays: 0. Motion Passes.

The public hearing closed at 7:24 pm.

**Additional Comments:**

Senior Planner Nemcek stated that truck traffic bringing in materials will occur on Blaine Ave/Rich Valley Blvd.

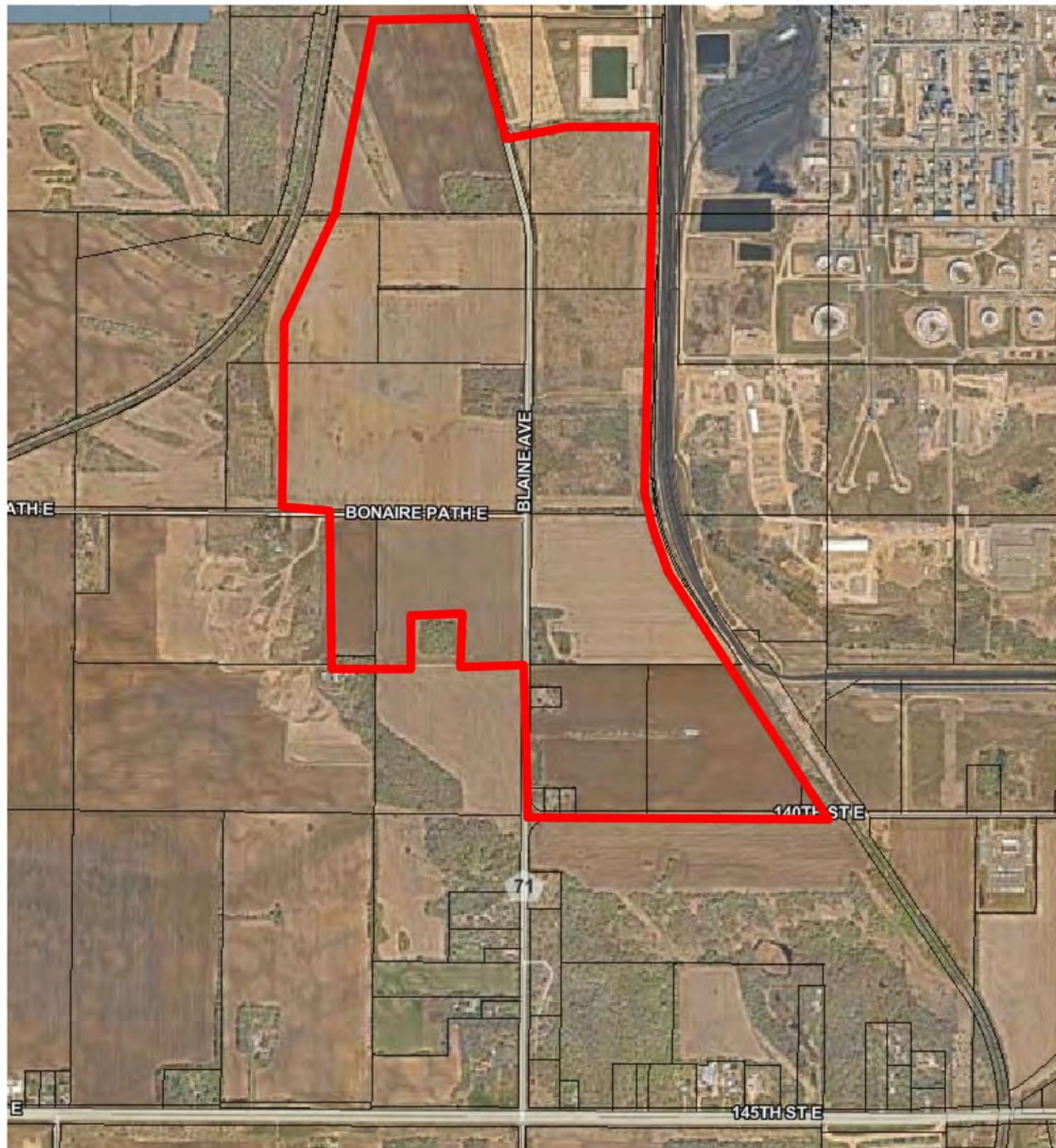
**MOTION** by Hebert to Recommend that the City Council approve the Interim Use Permit (IUP) allowing Flint Hills Resources to construct a solar facility to provide energy to its Pine Bend Refinery, subject to the following conditions:

- a. The project shall be subject to all requirements under city code and policy related to such development and improvements.
- b. An environmental assessment worksheet shall be provided by the applicant for review by the appropriate agencies and accepted by the City.
- c. The applicant shall submit a landscape plan and associated surety in the amount of 110% of the proposed landscaping cost prior to building permit approval.
- d. Applicant shall apply for the receive a grading permit prior to construction.
- e. The applicant shall conduct a tree inventory and submit for review with a grading permit application. Any required tree replacement shall be included in a landscape plan.
- f. Applicant shall provide sufficient parking where appropriate to ensure access to roadways remain clear for emergency vehicles.
- g. Ground or wall signs shall be approved through a separate permit.
- h. If lighting will be provided, the applicant shall submit a detailed lighting plan and cut sheet for all light fixtures consistent with the City's lighting standards as part of its building or electrical permit submission.
- i. Submission of a certification from Underwriters Laboratories, Inc., or other appropriate certification as determined by the city, prior to receiving a building permit. The City reserves the right to deny a building permit for proposed solar energy systems deemed to have inadequate certification.
- j. Any solar energy system remaining nonfunctional or inoperative for a continuous period of one year shall be deemed abandoned and shall constitute a public nuisance. The owner shall remove the abandoned system at their expense after obtaining a demolition permit. Removal includes the entire structure including transmission equipment.
- k. There shall be no assignment of the interim use permit without the written approval of the City. The permittee will be responsible for all requirements of this permit and all applicable City ordinances for the permit period unless the permittee gives sixty (60) days prior written notice to the City of termination and surrenders the permit to the City.
- l. The permittee shall grant to the City, its agents, employees, officers and contractors, including agents, employees and contractors of any surety, an irrevocable license, in a form approved by the City Attorney, to enter the property to perform all work and inspections deemed appropriate by the City to enforce conditions or to perform work as a result of the permittee's default. This license shall continue in effect until all conditions imposed by the City have been complied with.
- m. The permittee shall hold the City harmless from all claims or causes of action that may result from the granting of the permit. The permittee shall indemnify the City for all costs, damages or expenses, including but not limited to attorney fees that the City may pay or incur in consequence of such claims.
- n. Conformance with all requirements of all other applicable regulatory agencies including, but not limited to, Dakota County and the State of Minnesota.

**Second** by Marlow.

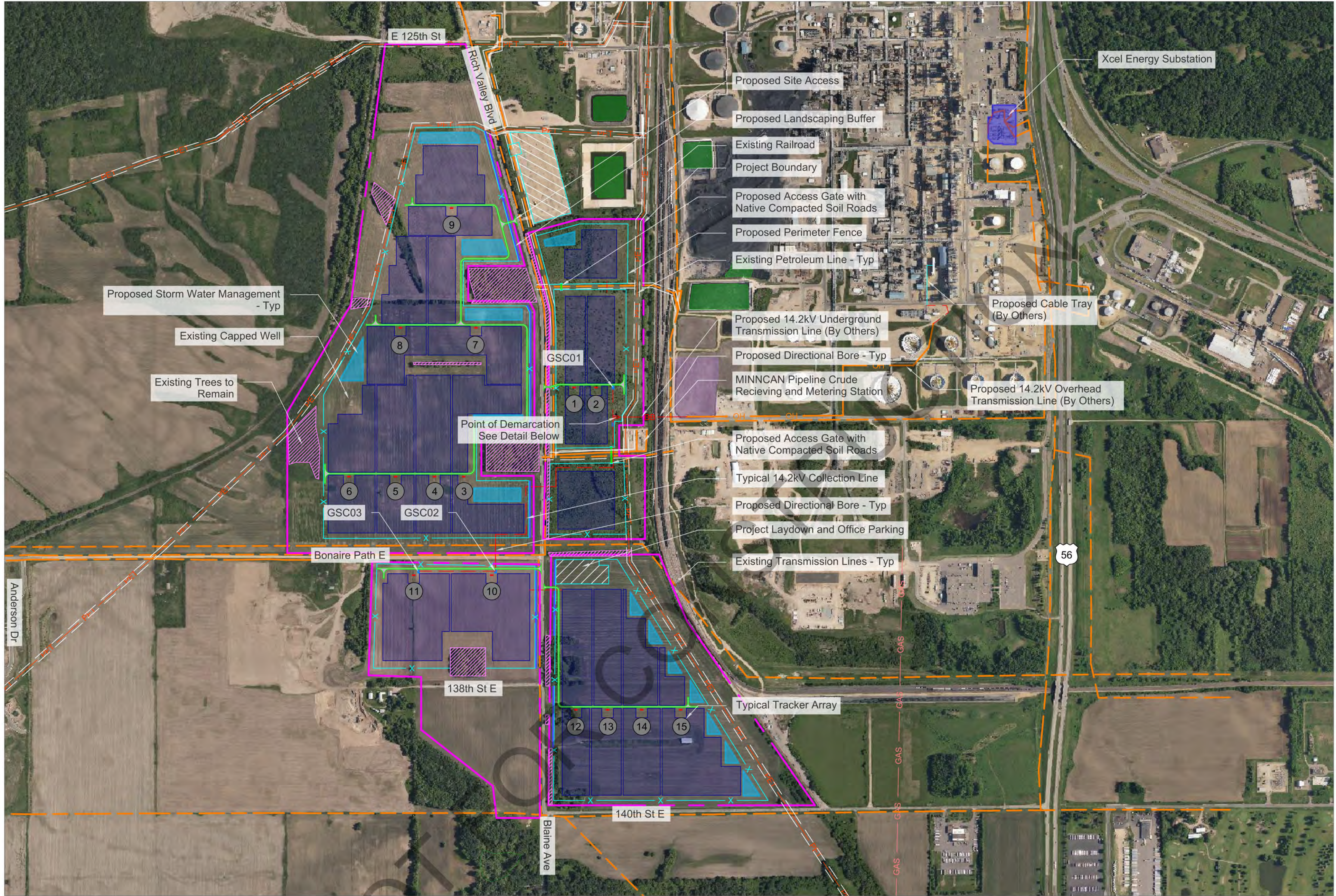
Ayes: 6. Nays: 0. Motion Passes.







D:\DEPCOM Power Dev\CAD - PDE\Opportunities\Flint Hills Resources\Pine Bend Refinery\Site Plans\WIP\Active Drawings\Pine Bend Refinery SP-100-5-T - 1/18/2022 11:43 AM



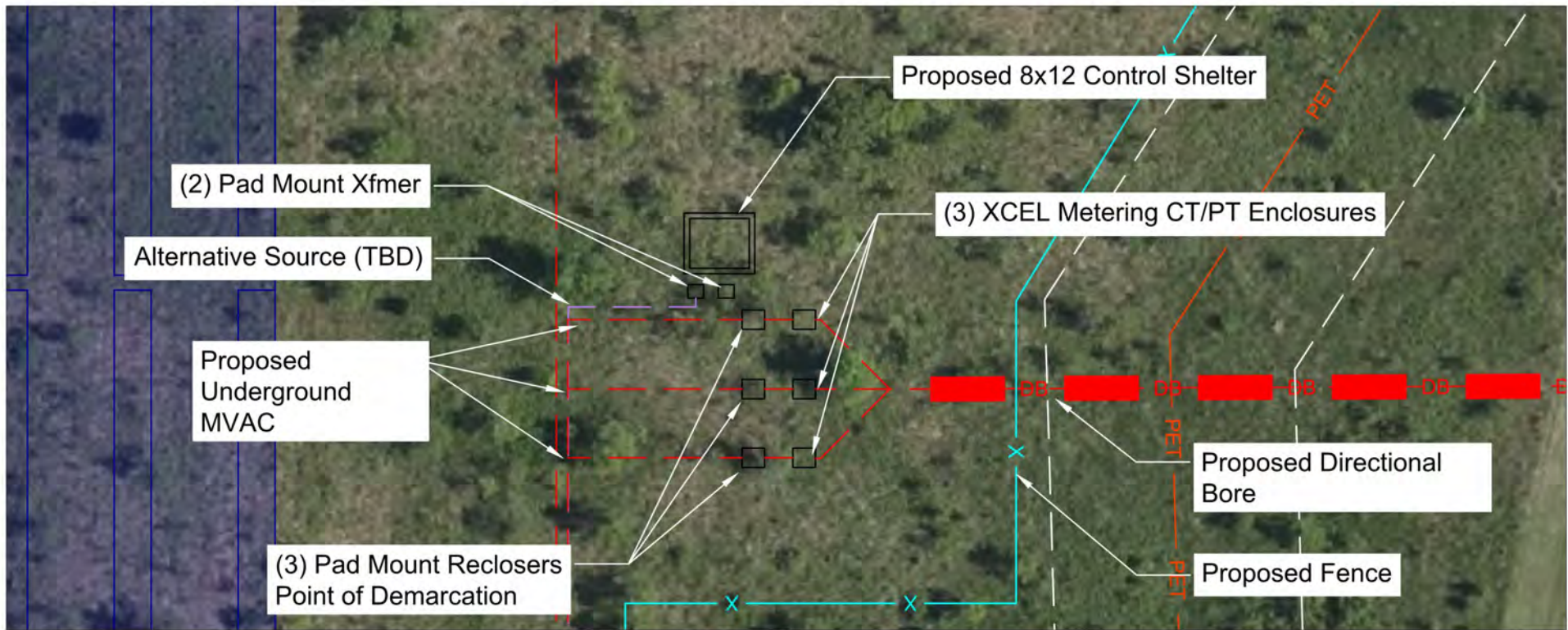
| Information used to prepare this drawing |   |                |
|--|---|----------------|
| Item                                     | Source  | Date, Revision |
| Site Boundary                            | PDF from Client: PB Solar Farm Attachment 2 - Solar Map.pdf                       | 10/1/2020      |
| CUP                                      | None  | N/A            |
| Geotech                                  | None  | N/A            |
| FEMA                                     | Panel: 27037C0115E, 27037C0120E   | 12/2/2011      |
| Topographic Survey                       | Topo CAD file provided by Harry S. Johnson Co: HSI 202110005 FHR TOPO 8-11-21.dwg | 8/11/2021      |
| Hydrology                                | None  | N/A            |
| Wetlands                                 | National Wetland Database   | 2018           |
| POI Location                             | None  | N/A            |
| Aerial Imagery                           | USGS via Bing Maps  | N/A            |
| ASHRAE                                   | http://ashrae-meteo.info/index.php  | ASHRAE 2017    |
| Wind Load Source                         | https://hazards.atcouncil.org/  | (ASCE7-16)     |
| Snow Load Source                         | https://hazards.atcouncil.org/  | (ASCE7-16)     |
| Seismic Load Source                      | https://hazards.atcouncil.org/  | (ASCE7-16)     |

\*Files are based on State Plane Coordinate System NAD83

### Site Plan

Scale: 1" = 600'

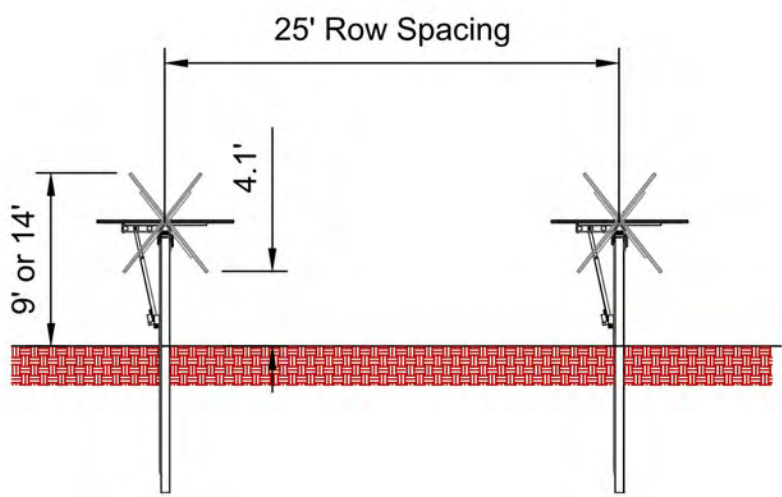
### AC Capacity at Point of Interconnection: 45MWac



### Point of Interconnection Detail

Scale: 1" = 30'

| Circuit        | 3.062 MWac | MWdc  | MWac  | dc/ac Ratio |
|----------------|------------|-------|-------|-------------|
| 1              | 5          | 17.95 | 15.31 | 1.1722      |
| 2              | 5          | 18.28 | 15.31 | 1.1937      |
| 3              | 5          | 18.39 | 15.31 | 1.2012      |
| Total Capacity | 15         | 54.61 | 45.93 | 1.1890      |



### Tracker Elevation Detail

Scale: NTS

### Pine Bend Refinery

Rosemount, Dakota County, Minnesota

### Owner/Developer:

Flint Hills Resources

### Project Information:

Customer Name: Flint Hills Resources Pine Bend, LLC.  
Customer Address: 13775 Clark Road  
Rosemount, MN 55068  
Customer Account # At Xcel: 51-5604696-6

### EPC Company

EPC Contact Name and Number: DEPCOM Power  
9185 E Pima Center Pkwy Suite 100,  
Scottsdale, AZ 85258

Installer Company: TBD  
Installer Contact Name and Number: TBD  
Solar Farm / Interconnection Address: 13775 Clark Road  
Rosemount, MN 55068  
Row Spacing: 25ft  
DC/AC Disconnect Location: At PAD Mounted Reclosers

### Project Site Description:

Latitude: 44.760081°  
Longitude: -93.071215°  
Elevation: 835 ft min - 970 ft max  
Total Site Area - Available: 1087.16 ± Acres  
Total Buildable Area: 806.26 ± Acres  
Total Fenced Acres: 314.70 ± Acres  
Total Array Footprint: 207.18 ± Acres

Annual Cooling Design Temp: 90.8° F  
Extreme Annual Min DB MeanTemp: -14.8° F  
(ASHRAE 2017)

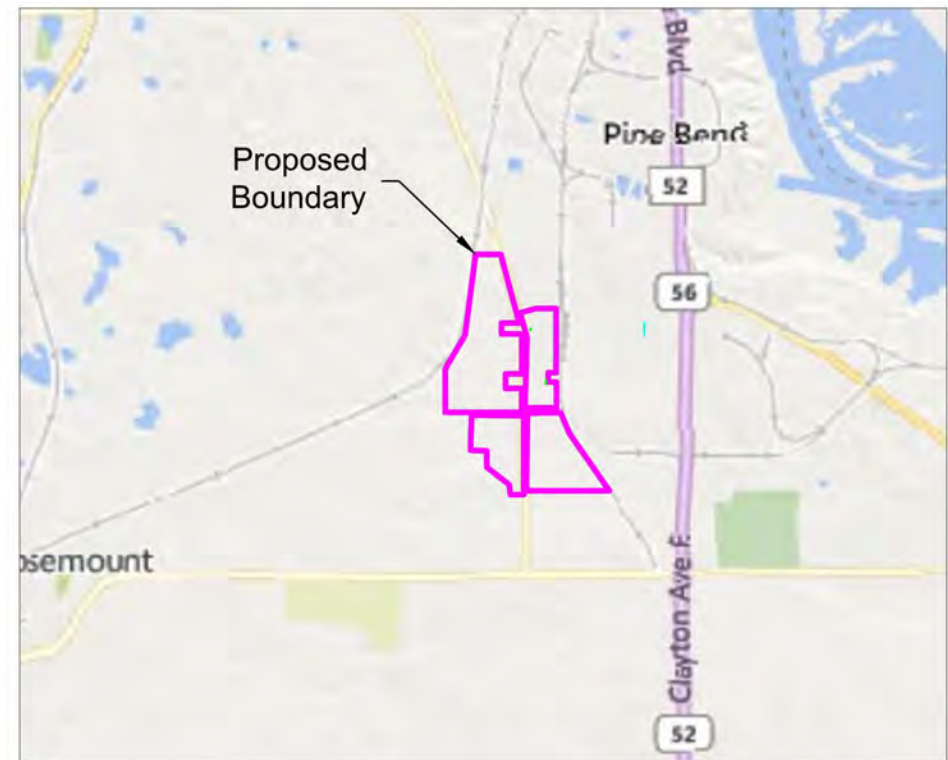
Wind Load: 102, Risk Category I  
Snow Load: 50psf  
Seismic Load: SS= 0.05g, S1= 0.03g

### Interconnection Data:

Transmission Provider: NSP  
Interconnection Voltage: 14.2kV  
Offtaker: Flint Hills Resources  
Point of Interconnection: 29SU01 15kV Switchgear ~3,000' LF

### Legend

- Project Boundary Line
- Underground AC Line
- Overhead AC Line
- Directional Bore
- Perimeter Fence
- Existing Overhead Line
- Existing Gas Line
- Existing Petroleum Line
- Proposed Access Road
- Proposed Landscaping Buffer
- Proposed Storm Water Management
- Wetlands
- 300ft Railway Buffer
- 100-YR FEMA Flood Plain
- Existing Trees to Remain



### Key Map

Scale: 1" = 6,000'



DEPCOM POWER

9185 E PIMA CENTER PARKWAY #100  
SCOTTSDALE, AZ 85258  
PHONE: (480) 270-6910  
WWW.DEPCOMPOWER.COM



**Pine Bend Refinery**  
Rosemount, Dakota County,  
Minnesota

TITLE:

THIS PRINT IS NOT TO BE  
USED FOR CONSTRUCTION  
UNLESS NOTED AND SIGNED  
"OK FOR CONSTRUCTION"  
ABOVE LAST REVISION

| REV | DATE    | DESCRIPTION                     | BY | CHK | APP |
|-----|---------|---------------------------------|----|-----|-----|
| 1   | 1-17-22 | Revised per Client Comments     | MP | MP  | RR  |
| 0   | 1-6-22  | Released for Engineering Design | CF | MP  | RR  |

DEPCOM JOB NUMBER: #####

PROJECT CODE: MN55

PROJECT DIRECTOR: TBD

PROJECT MANAGER: TBD

SHEET TITLE:

Site Plan

CHECKED BY: MP

DRAWN BY: CF

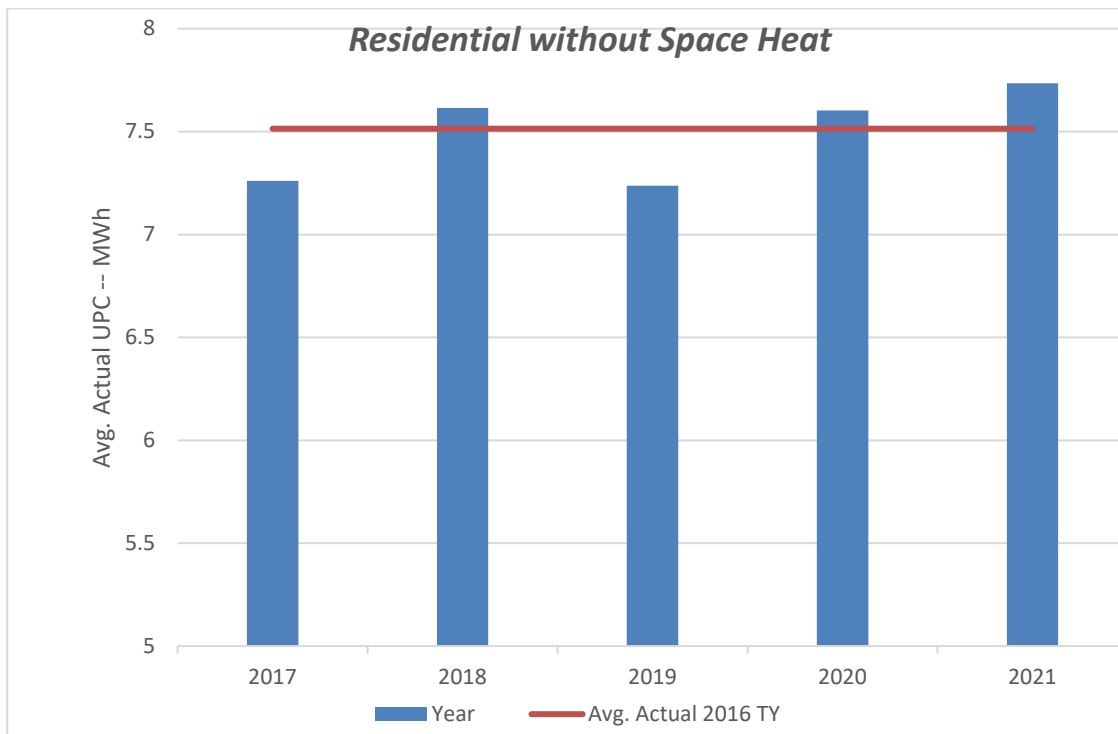
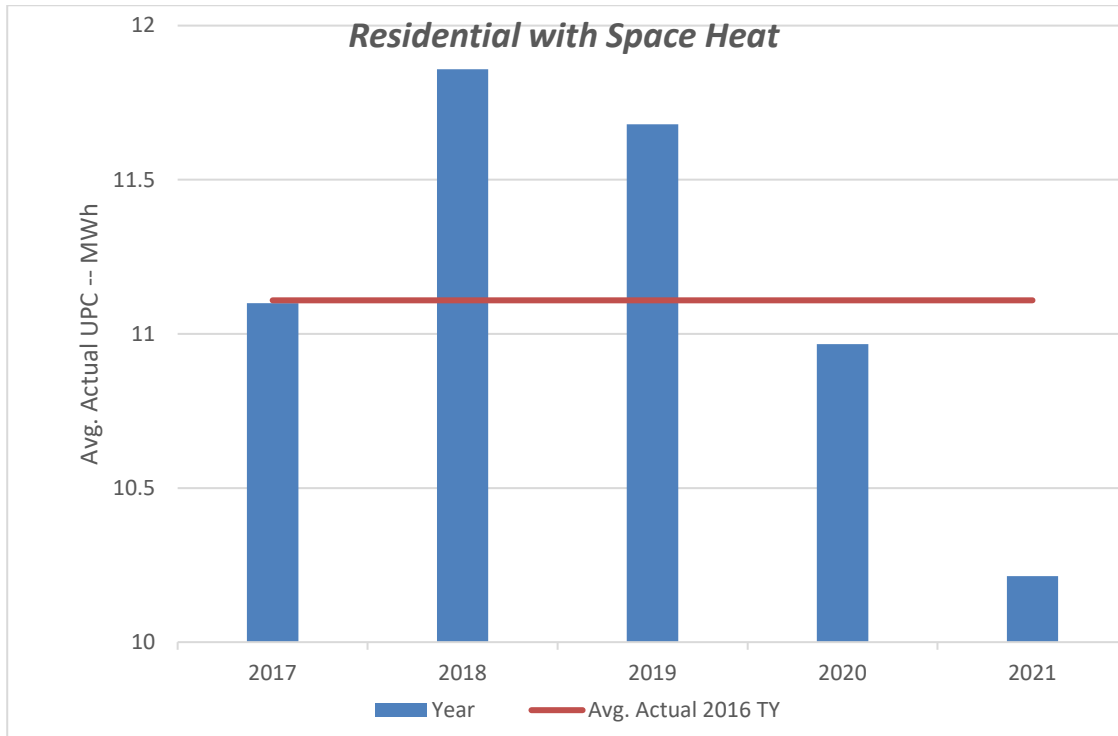
SCALE: AS NOTED

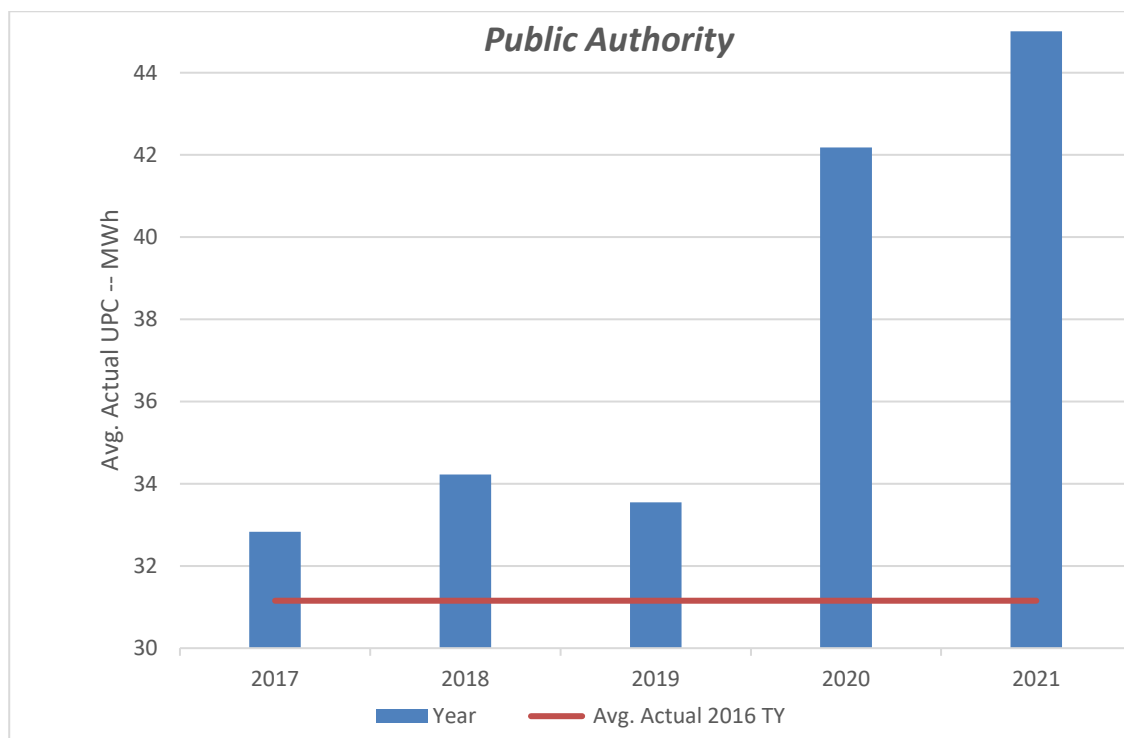
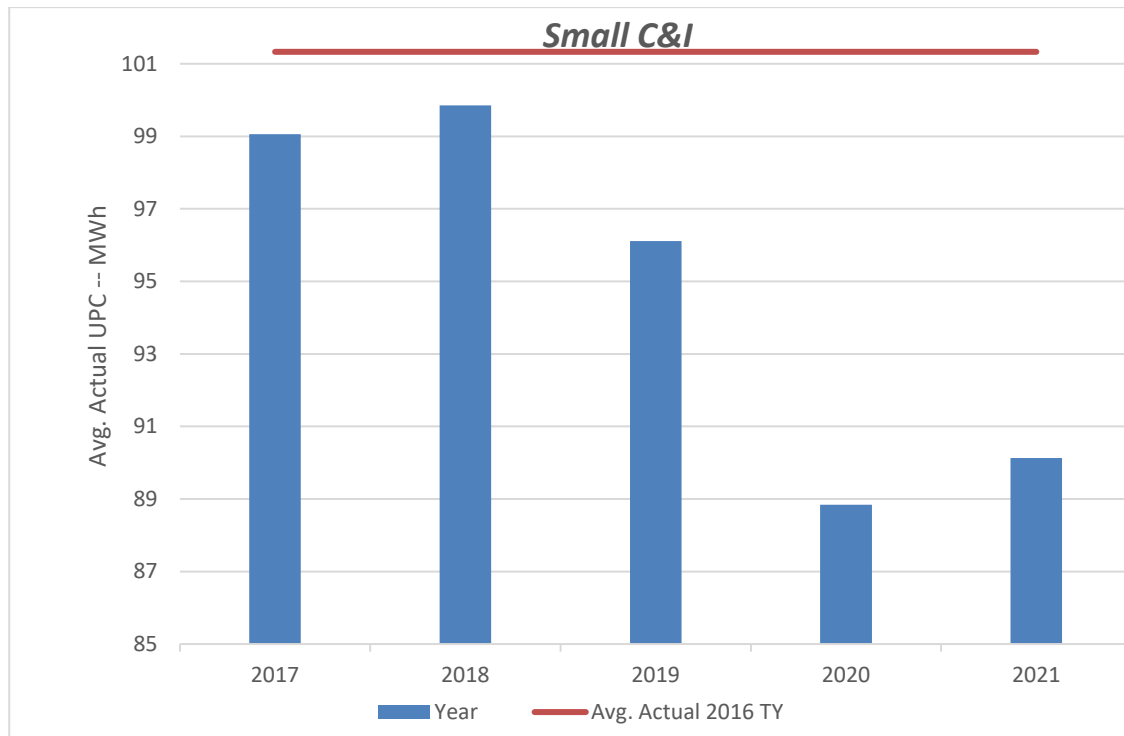
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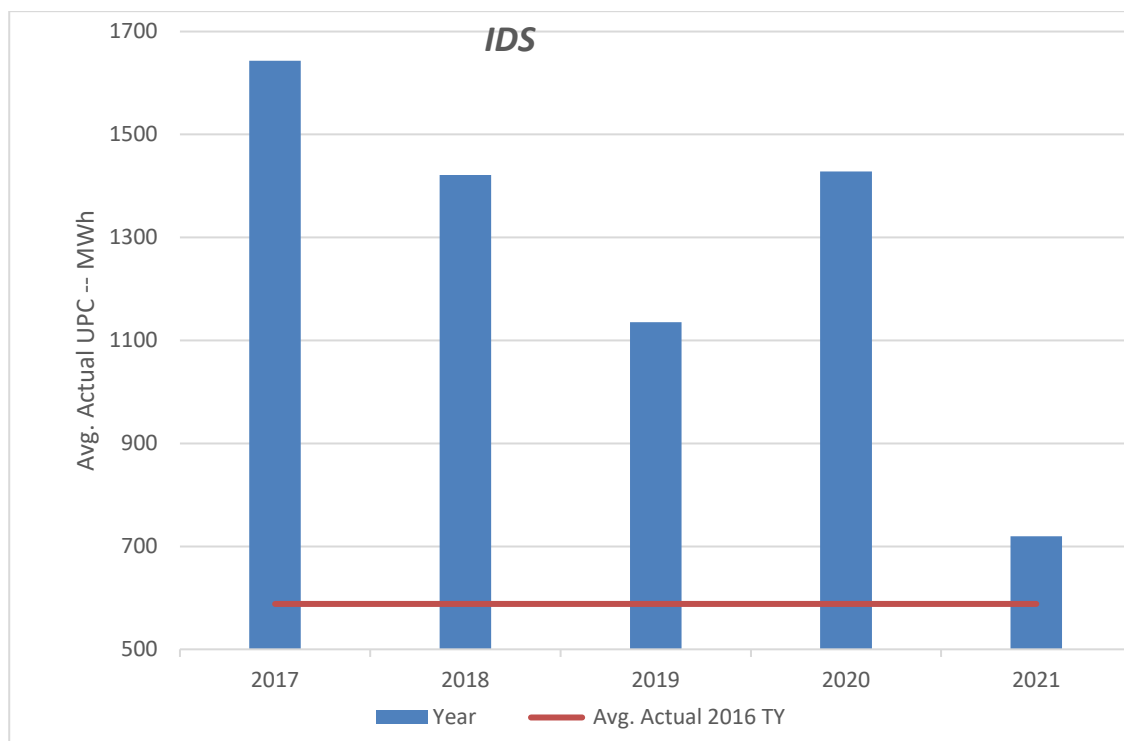
SP-100-5-T

SHEET 1 OF 3









**Calendar MWh****Class**

| <b>Residential with Space Heat</b> | 2015           | 2016           | 2017           | 2018           | 2019           | 2020           | 2021           |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| January                            | 56047.69351    | 58123.36844    | 54382.77968    | 59487.59664    | 61762.88237    | 55186.67377    | 52994.54888    |
| February                           | 58137.23388    | 43344.03113    | 40276.55839    | 50826.79674    | 51629.18556    | 46078.93618    | 53690.62905    |
| March                              | 39308.07742    | 37472.9158     | 40413.76875    | 38692.9745     | 42279.67551    | 39378.35485    | 38288.11953    |
| April                              | 25453.52519    | 21220.68788    | 22549.08522    | 31042.76822    | 27393.04354    | 29840.05663    | 26930.17351    |
| May                                | 17213.75462    | 20337.27672    | 20924.9133     | 24821.71756    | 24918.73859    | 22378.41903    | 24009.2326     |
| June                               | 19712.86799    | 22216.56509    | 22067.06116    | 23825.72484    | 21479.50887    | 24389.29949    | 28441.8144     |
| July                               | 23661.5745     | 24967.37282    | 25215.96907    | 23820.36141    | 26649.13794    | 30008.96122    | 28253.94202    |
| August                             | 22807.66083    | 25594.32237    | 21013.8058     | 26452.92655    | 22529.40523    | 27067.68074    | 29413.39681    |
| September                          | 21165.03834    | 19731.96096    | 20222.17011    | 19997.33149    | 20341.22613    | 21266.59902    | 20842.67387    |
| October                            | 21629.55327    | 23314.31138    | 24284.55125    | 27764.93789    | 28021.5124     | 28601.34012    | 24715.3275     |
| November                           | 32011.64586    | 28382.47757    | 39096.07917    | 44211.56158    | 43592.56474    | 39063.86958    | 37767.72067    |
| December                           | 43877.05721    | 51582.67902    | 52549.10313    | 46254.18685    | 51728.50955    | 49844.31657    | 51277.31193    |
| <b>Total</b>                       | <b>381,026</b> | <b>376,288</b> | <b>382,996</b> | <b>417,199</b> | <b>422,325</b> | <b>413,105</b> | <b>416,625</b> |

**Class**

| <b>Residential with out Space Heat</b> | 2015             | 2016             | 2017             | 2018             | 2019             | 2020             | 2021             |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| January                                | 750008.5518      | 743491.1416      | 742989.1635      | 757252.2051      | 751778.1543      | 725647.8678      | 747441.1891      |
| February                               | 656270.7092      | 618741.6549      | 576654.8153      | 615469.4828      | 628847.7127      | 615181.1567      | 668090.7729      |
| March                                  | 622707.9898      | 601635.5497      | 613798.7305      | 617897.0868      | 648597.9201      | 610010.0575      | 658231.9559      |
| April                                  | 525021.1356      | 517425.8743      | 514846.2618      | 547241.9289      | 537747.4413      | 566218.881       | 561637.5767      |
| May                                    | 562013.207       | 583958.5942      | 565674.1089      | 648185.6025      | 570487.9618      | 604614.1927      | 629505.0203      |
| June                                   | 709955.6063      | 777510.7814      | 771768.6453      | 865939.586       | 715568.1078      | 853179.0932      | 985915.033       |
| July                                   | 869477.1086      | 931275.5964      | 904043.0026      | 906687.6886      | 919606.9107      | 1084531.719      | 994040.1386      |
| August                                 | 806717.9153      | 928480.9342      | 721118.1133      | 944258.2707      | 784662.5887      | 942489.1115      | 1001843.427      |
| September                              | 715136.4076      | 651736.0663      | 704096.5677      | 681801.7576      | 665449.106       | 621328.6428      | 657490.9948      |
| October                                | 608251.2811      | 577064.5638      | 567437.0897      | 584462.7523      | 584282.1646      | 626160.8955      | 616721.2736      |
| November                               | 600792.0913      | 579870.5698      | 615020.6619      | 620980.7656      | 612141.0129      | 621170.3023      | 625265.0131      |
| December                               | 697977.3765      | 733565.5605      | 732798.487       | 698215.7581      | 710510.6367      | 749960.6826      | 713352.6048      |
| <b>Total</b>                           | <b>8,124,329</b> | <b>8,244,757</b> | <b>8,030,246</b> | <b>8,488,393</b> | <b>8,129,680</b> | <b>8,620,493</b> | <b>8,859,535</b> |

**Class**

| <b>Small C&amp;I</b> | 2015        | 2016        | 2017        | 2018        | 2019        | 2020        | 2021        |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| January              | 1152604.11  | 1103375.454 | 1117675.505 | 1120268.747 | 1088845.506 | 1083243.222 | 976886.0237 |
| February             | 1003964.922 | 1038600.277 | 935650.4281 | 961949.457  | 931817.6246 | 980685.3452 | 911306.0029 |
| March                | 1106905.405 | 1063372.694 | 1097056.853 | 1096397.634 | 1135736.763 | 1011861.227 | 956853.4981 |
| April                | 1007807.156 | 986880.7055 | 937342.5428 | 983347.0372 | 971502.0469 | 787654.1387 | 846612.6252 |
| May                  | 1084388.573 | 1091775.78  | 1056914.531 | 1117746.596 | 1047267.29  | 870015.6005 | 1001157.477 |
| June                 | 1142101.934 | 1168042.927 | 1171580.858 | 1214653.057 | 1103661.565 | 1046859.156 | 1143040.074 |
| July                 | 1263315.698 | 1290052.646 | 1284262.947 | 1265908.93  | 1234647.512 | 1182063.353 | 1213960.573 |
| August               | 1251563.463 | 1281866.78  | 1162553.95  | 1261861.306 | 1136358.043 | 1141234.935 | 1190119.75  |
| September            | 1164571.886 | 1110158.49  | 1177720.307 | 1093413.387 | 1076744.988 | 917252.9399 | 1015801.892 |
| October              | 1108064.963 | 1076617.053 | 1014221.501 | 1024315.471 | 1026570.785 | 983577.4028 | 1024203.592 |
| November             | 1030408.631 | 981201.6017 | 999512.5153 | 989175.8135 | 1019714.427 | 937377.3015 | 942554.2698 |
| December             | 1071026.12  | 1117669.72  | 1097124.699 | 1096274.816 | 1047840.725 | 995590.7889 | 999288.7211 |
| <b>Total</b>         | 13,386,723  | 13,309,614  | 13,051,617  | 13,225,312  | 12,820,707  | 11,937,415  | 12,221,784  |

**Class**

| <b>Large C&amp;I</b> | 2015        | 2016        | 2017        | 2018        | 2019        | 2020        | 2021        |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| January              | 634856.8329 | 641797.7414 | 641906.1844 | 634598.3408 | 613686.7277 | 576215.6777 | 553785.2318 |
| February             | 614632.4321 | 619561.5661 | 610387.3925 | 597144.7708 | 584457.4676 | 562581.1059 | 515050.4513 |
| March                | 673207.1511 | 652696.1393 | 658780.3143 | 665679.3617 | 661222.7353 | 590312.5602 | 569860.3505 |
| April                | 676715.2108 | 620339.1509 | 645121.3009 | 637802.5017 | 617736.8283 | 505790.283  | 546699.4662 |
| May                  | 670707.2405 | 669360.3047 | 672223.637  | 680738.4422 | 630532.6635 | 528479.3925 | 593228.5512 |
| June                 | 687788.2939 | 679284.491  | 682358.2277 | 694954.6305 | 604337.3912 | 572220.6842 | 608838.198  |
| July                 | 750468.9527 | 753433.147  | 699073.8436 | 765632.7647 | 689205.8829 | 670414.8528 | 658996.0871 |
| August               | 759639.1626 | 786756.3892 | 753201.8158 | 774243.5687 | 720940.4182 | 664951.3781 | 674500.2084 |
| September            | 715717.2861 | 729250.6146 | 702457.8182 | 723430.5184 | 662361.5989 | 620273.6411 | 630643.655  |
| October              | 698788.6826 | 704596.4248 | 712467.0074 | 672424.1479 | 651218.9826 | 580047.6238 | 640285.207  |
| November             | 672891.4245 | 654094.0788 | 656219.8905 | 628510.1177 | 575876.988  | 565963.2923 | 592607.5192 |
| December             | 654182.5383 | 648414.1776 | 656096.9202 | 652516.9149 | 610338.9585 | 567062.2804 | 573078.5032 |
| <b>Total</b>         | 8,209,595   | 8,159,584   | 8,090,294   | 8,127,676   | 7,621,917   | 7,004,313   | 7,157,573   |

**Class****Street Lighting**

|              | 2015        | 2016        | 2017        | 2018        | 2019        | 2020       | 2021        |
|--------------|-------------|-------------|-------------|-------------|-------------|------------|-------------|
| January      | 16931.10532 | 14825.84619 | 12172.75881 | 16403.43252 | 12181.35956 | 11931.551  | 14019.547   |
| February     | 8075.552755 | 13797.75209 | 12260.93108 | 9389.941781 | 9430.246898 | 8270.904   | 3856.383    |
| March        | 18641.19555 | 12101.99185 | 11189.62665 | 10380.98121 | 9580.26412  | 8234.4775  | 9750.899167 |
| April        | 8011.662412 | 11384.61802 | 9718.441373 | 8282.743385 | 6401.339    | 6969.97525 | 2997.393136 |
| May          | 8255.657884 | 8050.459727 | 7037.707133 | 7386.246049 | 5591.428    | 5049.872   | 6824.694958 |
| June         | 8888.663867 | 7066.642425 | 6619.984668 | 6907.281902 | 5470.2494   | 6074.179   | 5161.548296 |
| July         | 5895.88929  | 7015.464661 | 7451.276674 | 5082.445936 | 5608.81208  | 6028.894   | 5498.864727 |
| August       | 10757.49698 | 9391.44158  | 9027.538994 | 6747.176863 | 6382.67761  | 5327.053   | 5880.613034 |
| September    | 9333.806016 | 9875.505488 | 7782.493065 | 9607.579954 | 7440.454    | 9299.293   | 7585.361416 |
| October      | 12807.55962 | 14349.16941 | 11941.65822 | 8269.596281 | 9636.102    | 6731.534   | 7497.282568 |
| November     | 14947.54153 | 10323.28169 | 13293.81837 | 12698.03571 | 9186.05     | 10730.664  | 9674.701201 |
| December     | 15008.45037 | 16718.7208  | 8489.762405 | 12818.5833  | 11358.205   | 10193.709  | 9589.9007   |
| <b>Total</b> | 137,555     | 134,901     | 116,986     | 113,974     | 98,267      | 94,842     | 88,337      |

**Class****Public Authority**

|              | 2015        | 2016        | 2017        | 2018        | 2019        | 2020        | 2021        |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| January      | 5101.182183 | 4813.211673 | 5395.502396 | 5385.255286 | 5332.565166 | 5209.746848 | 4745.959289 |
| February     | 4427.983195 | 4270.017685 | 4328.499926 | 4311.214067 | 4769.607913 | 3782.212065 | 5249.797427 |
| March        | 4777.423873 | 4422.537046 | 5256.625911 | 5358.96023  | 5790.477419 | 5276.371199 | 5253.350147 |
| April        | 4475.99416  | 4681.730096 | 4060.08536  | 4939.402387 | 5600.757034 | 4708.413901 | 4486.744196 |
| May          | 5366.708826 | 4993.942858 | 5731.0363   | 5979.860407 | 6573.608906 | 5133.294297 | 5231.492971 |
| June         | 5181.489199 | 5562.595297 | 6474.328872 | 6951.029647 | 6481.607763 | 5661.530459 | 6529.13528  |
| July         | 6409.352881 | 6946.941951 | 7914.785172 | 7103.101312 | 6756.514838 | 6859.971064 | 8332.936585 |
| August       | 6263.373344 | 7155.278895 | 6794.90189  | 6787.898493 | 6949.25178  | 6522.423854 | 7286.547022 |
| September    | 5001.918366 | 5707.345386 | 5569.175804 | 7206.109895 | 5253.620829 | 5726.274392 | 6352.967072 |
| October      | 5041.376823 | 5382.453491 | 5151.091258 | 5284.298184 | 4511.978453 | 5720.269853 | 5486.120748 |
| November     | 4538.828132 | 4752.456822 | 5050.81045  | 4975.882338 | 5095.69152  | 4625.250959 | 3599.184605 |
| December     | 4764.465616 | 5357.184587 | 5520.559373 | 5548.589159 | 5062.502192 | 5043.76164  | 4434.277171 |
| <b>Total</b> | 61,350      | 64,046      | 67,247      | 69,832      | 68,178      | 64,270      | 66,989      |

**Class**

| <b>IDS</b>   | 2015       | 2016       | 2017     | 2018    | 2019    | 2020    | 2021    |
|--------------|------------|------------|----------|---------|---------|---------|---------|
| January      | 532.66685  | 621.17517  | 99.682   | 99.555  | 463.042 | 367.78  | 368.706 |
| February     | 92.584842  | 102.22415  | 605.298  | 741.208 | 483.494 | 408.549 | 29.313  |
| March        | 993.588    | 979.33573  | 522.474  | 911.206 | 377.492 | 372.615 | 661.828 |
| April        | 668.57656  | 523.27252  | 480.889  | 457.762 | 356.042 | 61.699  | 338.559 |
| May          | 67.283     | 72.08729   | 482.14   | 372.134 | 62.3    | 689.22  | 227.988 |
| June         | 2764.5098  | 2732.98238 | 1803.484 | 385.392 | 616.726 | 56.553  | 301.694 |
| July         | 1763.187   | -413.57082 | 661.487  | 401.212 | 765.43  | 62.811  | 293.418 |
| August       | 598.94524  | 687.444    | 80.223   | 885.038 | 836.371 | 1988.36 | 285.065 |
| September    | 657.29263  | 657.23915  | 1017.589 | 986.387 | 645.177 | 1995.39 | 314.96  |
| October      | 1145.44653 | 95.59462   | 551.646  | 905.484 | 328.693 | 338.412 | 258.565 |
| November     | 473.80673  | 66.371     | 531.7    | 419.183 | 286.085 | 320.75  | 23.083  |
| December     | 576.58647  | 1375.31442 | 556.688  | 422.77  | 362.229 | 122.954 | 256.008 |
| <b>Total</b> | 10,334     | 7,499      | 7,393    | 6,987   | 5,583   | 6,785   | 3,359   |

|              |            |            |            |            |            |            |            |
|--------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Total</b> | 30,310,912 | 30,296,689 | 29,746,779 | 30,449,373 | 29,166,657 | 28,141,222 | 28,814,203 |
|--------------|------------|------------|------------|------------|------------|------------|------------|

**Calendar Customers****Class**

| <b>Residential with Space Heat</b> | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   |
|------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| January                            | 33107  | 33415  | 34142  | 34976  | 35639  | 36793  | 38874  |
| February                           | 33206  | 33712  | 34175  | 35081  | 35767  | 36863  | 39177  |
| March                              | 33238  | 33773  | 34239  | 35174  | 36017  | 37087  | 39794  |
| April                              | 33262  | 33852  | 34240  | 35187  | 36040  | 37324  | 40006  |
| May                                | 33210  | 33855  | 34271  | 35148  | 36204  | 37372  | 40588  |
| June                               | 33173  | 33844  | 34418  | 35099  | 36181  | 37530  | 40760  |
| July                               | 33119  | 33822  | 34693  | 35176  | 36165  | 37636  | 40968  |
| August                             | 33132  | 34031  | 34690  | 35164  | 36190  | 38051  | 41185  |
| September                          | 33145  | 34011  | 34635  | 35137  | 36294  | 38226  | 41551  |
| October                            | 33197  | 34015  | 34775  | 35273  | 36349  | 38237  | 42034  |
| November                           | 33266  | 34037  | 34862  | 35326  | 36454  | 38377  | 42246  |
| December                           | 33373  | 34108  | 34913  | 35430  | 36595  | 38531  | 42296  |
| <b>Total</b>                       | 33,202 | 33,873 | 34,504 | 35,181 | 36,158 | 37,669 | 40,790 |

**Class**

| <b>Residential with out Space Heat</b> | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      | 2021      |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| January                                | 1085784   | 1093369   | 1102867   | 1110459   | 1119836   | 1128986   | 1140006   |
| February                               | 1086787   | 1094551   | 1103506   | 1111368   | 1120611   | 1129875   | 1141146   |
| March                                  | 1087599   | 1095351   | 1104673   | 1112844   | 1121725   | 1130816   | 1143176   |
| April                                  | 1088591   | 1095831   | 1105041   | 1113827   | 1122496   | 1132328   | 1143793   |
| May                                    | 1088413   | 1096525   | 1105616   | 1114679   | 1122899   | 1132472   | 1144623   |
| June                                   | 1088556   | 1096695   | 1105961   | 1114542   | 1122778   | 1133522   | 1144883   |
| July                                   | 1088077   | 1096548   | 1105651   | 1114657   | 1123150   | 1134357   | 1145506   |
| August                                 | 1088799   | 1097862   | 1106541   | 1115473   | 1123930   | 1135408   | 1146309   |
| September                              | 1089377   | 1098165   | 1106823   | 1115525   | 1124572   | 1135644   | 1147290   |
| October                                | 1091082   | 1099552   | 1107714   | 1117187   | 1125385   | 1137017   | 1148351   |
| November                               | 1091979   | 1100537   | 1108641   | 1117863   | 1126215   | 1137827   | 1149627   |
| December                               | 1092595   | 1101823   | 1109346   | 1118900   | 1127457   | 1138814   | 1150148   |
| <b>Total</b>                           | 1,088,970 | 1,097,234 | 1,106,032 | 1,114,777 | 1,123,421 | 1,133,922 | 1,145,405 |



**Class**

| <b>Small C&amp;I</b> | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    | 2021    |
|----------------------|---------|---------|---------|---------|---------|---------|---------|
| January              | 130491  | 131288  | 131892  | 132345  | 133094  | 134225  | 135204  |
| February             | 130504  | 131246  | 131750  | 132276  | 133116  | 134195  | 135303  |
| March                | 130431  | 131317  | 131737  | 132345  | 133222  | 134137  | 135482  |
| April                | 130505  | 131228  | 131636  | 132313  | 133188  | 134141  | 135532  |
| May                  | 130452  | 131248  | 131642  | 132370  | 133257  | 134143  | 135513  |
| June                 | 130507  | 131235  | 131640  | 132319  | 133263  | 134140  | 135532  |
| July                 | 130550  | 131138  | 131599  | 132333  | 133298  | 134199  | 135579  |
| August               | 130599  | 131295  | 131712  | 132410  | 133405  | 134332  | 135593  |
| September            | 130635  | 131351  | 131738  | 132393  | 133458  | 134429  | 135610  |
| October              | 130783  | 131532  | 131775  | 132573  | 133613  | 134608  | 135762  |
| November             | 130936  | 131593  | 131929  | 132792  | 133807  | 134842  | 136034  |
| December             | 131073  | 131732  | 132055  | 132981  | 134045  | 135080  | 136156  |
| <b>Total</b>         | 130,622 | 131,350 | 131,759 | 132,454 | 133,397 | 134,373 | 135,608 |

**Class**

| <b>Large C&amp;I</b> | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------------|------|------|------|------|------|------|------|
| January              | 505  | 500  | 502  | 505  | 507  | 499  | 499  |
| February             | 490  | 500  | 510  | 505  | 507  | 500  | 499  |
| March                | 496  | 493  | 508  | 504  | 505  | 502  | 499  |
| April                | 501  | 499  | 508  | 506  | 503  | 499  | 498  |
| May                  | 508  | 507  | 504  | 504  | 506  | 502  | 498  |
| June                 | 508  | 504  | 503  | 505  | 507  | 504  | 500  |
| July                 | 497  | 504  | 497  | 506  | 507  | 502  | 498  |
| August               | 490  | 505  | 499  | 505  | 508  | 501  | 496  |
| September            | 488  | 505  | 499  | 506  | 509  | 501  | 497  |
| October              | 491  | 507  | 503  | 505  | 503  | 502  | 492  |
| November             | 511  | 506  | 507  | 506  | 503  | 504  | 491  |
| December             | 507  | 507  | 512  | 511  | 503  | 502  | 497  |
| <b>Total</b>         | 499  | 503  | 504  | 506  | 506  | 502  | 497  |

**Class**

| <b>Street Lighting</b> | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  |
|------------------------|-------|-------|-------|-------|-------|-------|-------|
| January                | 4195  | 4309  | 4480  | 4925  | 5236  | 5411  | 5566  |
| February               | 4197  | 4314  | 4487  | 4957  | 5247  | 5415  | 5584  |
| March                  | 4210  | 4327  | 4468  | 4969  | 5240  | 5415  | 5581  |
| April                  | 4220  | 4321  | 4543  | 4971  | 5268  | 5440  | 5589  |
| May                    | 4232  | 4381  | 4567  | 4986  | 5298  | 5442  | 5595  |
| June                   | 4233  | 4383  | 4601  | 5020  | 5325  | 5444  | 5618  |
| July                   | 4242  | 4394  | 4629  | 5027  | 5348  | 5454  | 5627  |
| August                 | 4255  | 4415  | 4774  | 5066  | 5342  | 5465  | 5629  |
| September              | 4270  | 4433  | 4796  | 5085  | 5362  | 5470  | 5644  |
| October                | 4284  | 4461  | 4847  | 5142  | 5386  | 5510  | 5671  |
| November               | 4295  | 4472  | 4854  | 5186  | 5402  | 5540  | 5698  |
| December               | 4303  | 4492  | 4871  | 5207  | 5407  | 5568  | 5708  |
| <b>Total</b>           | 4,245 | 4,392 | 4,660 | 5,045 | 5,322 | 5,465 | 5,626 |

**Class**

| <b>Public Authority</b> | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| January                 | 2082  | 2036  | 2055  | 2045  | 2035  | 2020  | 1463  |
| February                | 2083  | 2037  | 2054  | 2042  | 2034  | 1490  | 1461  |
| March                   | 2080  | 2042  | 2051  | 2043  | 2037  | 1489  | 1463  |
| April                   | 2080  | 2057  | 2048  | 2041  | 2037  | 1485  | 1462  |
| May                     | 2080  | 2063  | 2049  | 2039  | 2035  | 1483  | 1462  |
| June                    | 2078  | 2059  | 2049  | 2036  | 2035  | 1483  | 1463  |
| July                    | 2078  | 2067  | 2048  | 2042  | 2031  | 1478  | 1463  |
| August                  | 2076  | 2065  | 2044  | 2041  | 2033  | 1476  | 1459  |
| September               | 2073  | 2062  | 2047  | 2043  | 2032  | 1478  | 1458  |
| October                 | 2062  | 2061  | 2047  | 2041  | 2029  | 1469  | 1456  |
| November                | 2041  | 2060  | 2044  | 2036  | 2028  | 1468  | 1454  |
| December                | 2038  | 2060  | 2046  | 2034  | 2023  | 1466  | 1451  |
| <b>Total</b>            | 2,071 | 2,056 | 2,049 | 2,040 | 2,032 | 1,524 | 1,460 |

| <i><b>Class</b></i> |      |      |      |      |      |      |      |
|---------------------|------|------|------|------|------|------|------|
| <i><b>IDS</b></i>   | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| January             | 13   | 14   | 3    | 4    | 5    | 5    | 5    |
| February            | 11   | 11   | 4    | 5    | 5    | 5    | 4    |
| March               | 17   | 15   | 4    | 5    | 5    | 5    | 5    |
| April               | 13   | 13   | 4    | 5    | 5    | 4    | 5    |
| May                 | 11   | 11   | 5    | 5    | 4    | 5    | 4    |
| June                | 15   | 15   | 5    | 5    | 5    | 4    | 4    |
| July                | 13   | 17   | 5    | 5    | 5    | 4    | 4    |
| August              | 15   | 14   | 4    | 5    | 5    | 5    | 4    |
| September           | 13   | 10   | 5    | 5    | 5    | 5    | 4    |
| October             | 13   | 9    | 5    | 5    | 5    | 5    | 4    |
| November            | 13   | 10   | 5    | 5    | 5    | 5    | 6    |
| December            | 13   | 14   | 5    | 5    | 5    | 5    | 7    |
| <i><b>Total</b></i> | 13   | 13   | 5    | 5    | 5    | 5    | 5    |

|                     |           |           |           |           |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <i><b>Total</b></i> | 1,259,623 | 1,269,421 | 1,279,512 | 1,290,008 | 1,300,841 | 1,313,458 | 1,329,390 |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|

**Calendar MWh****Class - Use Per Customer (UPC)**

| <b>Residential with Space Heat</b> | 2015              | 2016               | 2017               | 2018               | 2019               | 2020               | 2021               |
|------------------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| January                            | 1.69292577        | 1.739439427        | 1.592841066        | 1.700811889        | 1.7330139          | 1.499923186        | 1.363238897        |
| February                           | 1.75080509        | 1.285715209        | 1.178538651        | 1.44884116         | 1.443486609        | 1.250005051        | 1.370463003        |
| March                              | 1.18262463        | 1.109552477        | 1.180343139        | 1.100044763        | 1.173881098        | 1.061783235        | 0.962158102        |
| April                              | 0.76524338        | 0.626866592        | 0.658559732        | 0.882222645        | 0.76007335         | 0.799487103        | 0.673153365        |
| May                                | 0.51833046        | 0.600717079        | 0.610572008        | 0.706205689        | 0.688286891        | 0.598801751        | 0.591535247        |
| June                               | 0.59424436        | 0.656440288        | 0.641148851        | 0.678814919        | 0.593668192        | 0.649861431        | 0.697787399        |
| July                               | 0.71444109        | 0.738199185        | 0.726831611        | 0.677176524        | 0.736876481        | 0.797347253        | 0.689658807        |
| August                             | 0.68838769        | 0.75208846         | 0.605759752        | 0.752272965        | 0.622531231        | 0.711352678        | 0.714177414        |
| September                          | 0.63855901        | 0.580164093        | 0.583865169        | 0.569124612        | 0.560456994        | 0.556338592        | 0.501616661        |
| October                            | 0.65155144        | 0.685412653        | 0.698333609        | 0.787144215        | 0.770901879        | 0.748001677        | 0.587984191        |
| November                           | 0.96229321        | 0.833871304        | 1.121452561        | 1.251530362        | 1.195823908        | 1.017897949        | 0.893995187        |
| December                           | 1.31474717        | 1.512333735        | 1.505144305        | 1.305509084        | 1.413540362        | 1.293615961        | 1.212344239        |
| <b>Average Total UPC</b>           | <b>11.4758707</b> | <b>11.10881513</b> | <b>11.09990784</b> | <b>11.85867009</b> | <b>11.68002555</b> | <b>10.96672121</b> | <b>10.21391865</b> |

**Calendar MWh****Class - Use Per Customer (UPC)**

| <b>Residential with out Space Heat</b> | 2015              | 2016              | 2017               | 2018               | 2019               | 2020               | 2021              |
|--|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|-------------------|
| January                                | 0.690753          | 0.680000203       | 0.673688816        | 0.681927208        | 0.671328797        | 0.642743017        | 0.655646715       |
| February                               | 0.60386323        | 0.565292668       | 0.52256609         | 0.553794497        | 0.561165036        | 0.544468332        | 0.585456          |
| March                                  | 0.57255293        | 0.549262793       | 0.555638393        | 0.555241424        | 0.578214732        | 0.539442365        | 0.575792315       |
| April                                  | 0.48229421        | 0.472176708       | 0.465906932        | 0.49131681         | 0.479064016        | 0.500048467        | 0.491030787       |
| May                                    | 0.51636025        | 0.532553835       | 0.51163705         | 0.581499788        | 0.508049221        | 0.533888867        | 0.549967125       |
| June                                   | 0.65219943        | 0.70895808        | 0.697826275        | 0.776946572        | 0.637319317        | 0.752679783        | 0.861149159       |
| July                                   | 0.7990952         | 0.849279372       | 0.817656749        | 0.813423043        | 0.818774795        | 0.95607619         | 0.867773838       |
| August                                 | 0.74092456        | 0.845717344       | 0.651686755        | 0.846509302        | 0.698141867        | 0.830088489        | 0.873973271       |
| September                              | 0.65646366        | 0.593477361       | 0.636141974        | 0.611193615        | 0.591735439        | 0.547115683        | 0.57308178        |
| October                                | 0.55747531        | 0.524817893       | 0.512259563        | 0.523155705        | 0.519184248        | 0.550704955        | 0.537049451       |
| November                               | 0.55018649        | 0.526897842       | 0.554751865        | 0.555507039        | 0.543538323        | 0.545926843        | 0.543885115       |
| December                               | 0.63882534        | 0.665774412       | 0.660568017        | 0.624019803        | 0.630188678        | 0.658545366        | 0.620226792       |
| <b>Average Total UPC</b>               | <b>7.46056365</b> | <b>7.51412758</b> | <b>7.260412057</b> | <b>7.614431303</b> | <b>7.236537782</b> | <b>7.602367125</b> | <b>7.73485037</b> |

**Calendar MWh****Class - Use Per Customer (UPC)**

| <b>Small C&amp;I</b>     | 2015              | 2016               | 2017               | 2018               | 2019               | 2020               | 2021               |
|--------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| January                  | 8.83282456        | 8.404236901        | 8.474172084        | 8.464760644        | 8.181026237        | 8.070353672        | 7.225274575        |
| February                 | 7.69298199        | 7.913386137        | 7.101711029        | 7.272290189        | 7.000042253        | 7.307912703        | 6.735297834        |
| March                    | 8.48652088        | 8.097753481        | 8.327628932        | 8.284390295        | 8.525144219        | 7.543490815        | 7.062587636        |
| April                    | 7.72236432        | 7.520351644        | 7.120715783        | 7.431975975        | 7.294216047        | 5.871837385        | 6.246588446        |
| May                      | 8.31254847        | 8.318418415        | 8.02870308         | 8.444108148        | 7.859003958        | 6.485732394        | 7.38790726         |
| June                     | 8.75126954        | 8.900391866        | 8.899884973        | 9.179732747        | 8.281830404        | 7.804228088        | 8.433728371        |
| July                     | 9.67687245        | 9.837367091        | 9.758911142        | 9.566086536        | 9.262310849        | 8.808287343        | 8.953898265        |
| August                   | 9.58325456        | 9.763256632        | 8.826484677        | 9.529954732        | 8.518106839        | 8.495629749        | 8.777147417        |
| September                | 8.9147004         | 8.451846501        | 8.939867819        | 8.258845911        | 8.068043792        | 6.823326365        | 7.490611991        |
| October                  | 8.47254585        | 8.185210087        | 7.69661545         | 7.726425973        | 7.683165445        | 7.306975832        | 7.544110961        |
| November                 | 7.86955941        | 7.456335836        | 7.576139554        | 7.449061792        | 7.620785359        | 6.951671597        | 6.928813898        |
| December                 | 8.17121848        | 8.484420795        | 8.308089049        | 8.243845485        | 7.817081762        | 7.370378953        | 7.339292584        |
| <b>Average Total UPC</b> | <b>102.484312</b> | <b>101.3291876</b> | <b>99.05692515</b> | <b>99.84821606</b> | <b>96.10929224</b> | <b>88.83817751</b> | <b>90.12561542</b> |

**Calendar MWh****Class - Use Per Customer (UPC)**

| <b>Large C&amp;I</b>     | 2015              | 2016               | 2017               | 2018               | 2019               | 2020               | 2021               |
|--------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| January                  | 1257.14224        | 1283.595483        | 1278.697578        | 1256.630378        | 1210.427471        | 1154.740837        | 1109.790044        |
| February                 | 1254.3519         | 1239.123132        | 1196.838025        | 1182.464893        | 1152.77607         | 1125.162212        | 1032.165233        |
| March                    | 1357.27248        | 1323.92726         | 1296.811642        | 1320.792384        | 1309.351951        | 1175.921435        | 1142.00471         |
| April                    | 1350.72896        | 1243.164631        | 1269.923821        | 1260.479252        | 1228.105026        | 1013.607782        | 1097.790093        |
| May                      | 1320.28984        | 1320.237287        | 1333.777057        | 1350.671512        | 1246.111983        | 1052.747794        | 1191.22199         |
| June                     | 1353.91396        | 1347.786689        | 1356.576993        | 1376.147783        | 1191.986965        | 1135.3585          | 1217.676396        |
| July                     | 1509.99789        | 1494.907038        | 1406.587211        | 1513.108231        | 1359.38044         | 1335.487755        | 1323.285315        |
| August                   | 1550.28401        | 1557.933444        | 1509.422477        | 1533.155582        | 1419.174052        | 1327.24826         | 1359.879452        |
| September                | 1466.63378        | 1444.060623        | 1407.731099        | 1429.704582        | 1301.299801        | 1238.07114         | 1268.900714        |
| October                  | 1423.19487        | 1389.736538        | 1416.435402        | 1331.532966        | 1294.669946        | 1155.473354        | 1301.392697        |
| November                 | 1316.81296        | 1292.676045        | 1294.319311        | 1242.114857        | 1144.884668        | 1122.94304         | 1206.939958        |
| December                 | 1290.30086        | 1278.923427        | 1281.439297        | 1276.941125        | 1213.397532        | 1129.606136        | 1153.075459        |
| <b>Average Total UPC</b> | <b>16441.1119</b> | <b>16219.15036</b> | <b>16041.56184</b> | <b>16073.18935</b> | <b>15073.00589</b> | <b>13966.72537</b> | <b>14401.55619</b> |

**Calendar MWh****Class - Use Per Customer (UPC)**

| <b>Street Lighting</b>   | 2015              | 2016              | 2017               | 2018               | 2019              | 2020               | 2021               |
|--------------------------|-------------------|-------------------|--------------------|--------------------|-------------------|--------------------|--------------------|
| January                  | 4.03602034        | 3.440669806       | 2.717133663        | 3.330646198        | 2.326462865       | 2.205054703        | 2.518783148        |
| February                 | 1.92412503        | 3.198366269       | 2.73254537         | 1.894279157        | 1.797264513       | 1.527406094        | 0.690613001        |
| March                    | 4.42783742        | 2.796855061       | 2.504392715        | 2.089148965        | 1.828294679       | 1.520679132        | 1.747159858        |
| April                    | 1.8984982         | 2.634718357       | 2.139212277        | 1.666212711        | 1.215136484       | 1.28124545         | 0.536302225        |
| May                      | 1.95076982        | 1.837584964       | 1.540991271        | 1.481397122        | 1.055384673       | 0.927944138        | 1.219784622        |
| June                     | 2.09984972        | 1.612284377       | 1.438814316        | 1.37595257         | 1.027276883       | 1.115756613        | 0.918751922        |
| July                     | 1.38988432        | 1.59660097        | 1.60969468         | 1.011029627        | 1.048768153       | 1.105407774        | 0.977228492        |
| August                   | 2.5282014         | 2.127166836       | 1.890980099        | 1.331854888        | 1.194810485       | 0.974758097        | 1.04469942         |
| September                | 2.18590305        | 2.227725127       | 1.622704976        | 1.889396254        | 1.387626632       | 1.700053565        | 1.343969067        |
| October                  | 2.98962643        | 3.216581351       | 2.463721523        | 1.608245095        | 1.789101745       | 1.221694011        | 1.322038894        |
| November                 | 3.48021922        | 2.308426138       | 2.738734729        | 2.448522119        | 1.700490559       | 1.93694296         | 1.697911759        |
| December                 | 3.48790387        | 3.72188798        | 1.742919812        | 2.461798214        | 2.100648234       | 1.830766703        | 1.680080711        |
| <b>Average Total UPC</b> | <b>32.4064508</b> | <b>30.7163054</b> | <b>25.10563817</b> | <b>22.59111245</b> | <b>18.4652018</b> | <b>17.35604461</b> | <b>15.70206296</b> |

**Calendar MWh****Class - Use Per Customer (UPC)**

| <b>Public Authority</b>  | 2015             | 2016               | 2017              | 2018               | 2019               | 2020               | 2021               |
|--------------------------|------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| January                  | 2.45013553       | 2.364052885        | 2.625548611       | 2.633376668        | 2.620425143        | 2.579082598        | 3.243991312        |
| February                 | 2.12577206       | 2.096228613        | 2.107351473       | 2.111270356        | 2.344939977        | 2.538397359        | 3.593290504        |
| March                    | 2.2968384        | 2.165786996        | 2.562957538       | 2.623083813        | 2.84264969         | 3.543566957        | 3.590806663        |
| April                    | 2.15192027       | 2.275999074        | 1.982463555       | 2.420089361        | 2.749512535        | 3.170649092        | 3.068908479        |
| May                      | 2.58014847       | 2.420718787        | 2.79699185        | 2.93274174         | 3.230274647        | 3.461425689        | 3.578312566        |
| June                     | 2.49349817       | 2.701600436        | 3.159750548       | 3.414061713        | 3.18506524         | 3.817619999        | 4.462840246        |
| July                     | 3.08438541       | 3.360881447        | 3.864641197       | 3.478502112        | 3.326693667        | 4.64138773         | 5.695787139        |
| August                   | 3.01703918       | 3.465026099        | 3.324315993       | 3.325770942        | 3.418225175        | 4.418986351        | 4.994206321        |
| September                | 2.41288874       | 2.767868762        | 2.720652567       | 3.527219723        | 2.585443321        | 3.874339913        | 4.357316236        |
| October                  | 2.44489662       | 2.611573746        | 2.516409994       | 2.589073094        | 2.223744925        | 3.893989008        | 3.767940074        |
| November                 | 2.22382564       | 2.307017875        | 2.471042295       | 2.443950068        | 2.512668402        | 3.150715912        | 2.475367679        |
| December                 | 2.33781434       | 2.600575042        | 2.698220613       | 2.727919941        | 2.50247266         | 3.440492251        | 3.056014591        |
| <b>Average Total UPC</b> | <b>29.624609</b> | <b>31.15441848</b> | <b>32.8276313</b> | <b>34.22698268</b> | <b>33.54537725</b> | <b>42.17852045</b> | <b>45.89564089</b> |

**Calendar MWh**  
**Class - Use Per Customer (UPC)**

| <b>IDS</b>               | 2015       | 2016        | 2017        | 2018        | 2019        | 2020        | 2021        |
|--------------------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| January                  | 40.9743731 | 44.369655   | 33.22733333 | 24.88875    | 92.6084     | 73.556      | 73.7412     |
| February                 | 8.41680382 | 9.293104545 | 151.3245    | 148.2416    | 96.6988     | 81.7098     | 7.32825     |
| March                    | 58.4463529 | 65.28904867 | 130.6185    | 182.2412    | 75.4984     | 74.523      | 132.3656    |
| April                    | 51.4289662 | 40.25173231 | 120.22225   | 91.5524     | 71.2084     | 15.42475    | 67.7118     |
| May                      | 6.11663636 | 6.55339     | 96.428      | 74.4268     | 15.575      | 137.844     | 56.997      |
| June                     | 184.300653 | 182.1988253 | 360.6968    | 77.0784     | 123.3452    | 14.13825    | 75.4235     |
| July                     | 135.629769 | -24.3276953 | 132.2974    | 80.2424     | 153.086     | 15.70275    | 73.3545     |
| August                   | 39.9296827 | 49.10314286 | 20.05575    | 177.0076    | 167.2742    | 397.672     | 71.26625    |
| September                | 50.5609715 | 65.723915   | 203.5178    | 197.2774    | 129.0354    | 399.078     | 78.74       |
| October                  | 88.1112715 | 10.62162444 | 110.3292    | 181.0968    | 65.7386     | 67.6824     | 64.64125    |
| November                 | 36.4466715 | 6.6371      | 106.34      | 83.8366     | 57.217      | 64.15       | 3.847166667 |
| December                 | 44.3528054 | 98.23674429 | 111.3376    | 84.554      | 72.4458     | 24.5908     | 36.57257143 |
| <b>Average Total UPC</b> | 775.085524 | 588.1936949 | 1642.955556 | 1421.152068 | 1135.541898 | 1428.440632 | 719.8257857 |

|                      |            |           |             |             |             |             |            |
|----------------------|------------|-----------|-------------|-------------|-------------|-------------|------------|
| <b>Total Average</b> | 24.0634859 | 23.866548 | 23.24853625 | 23.60401879 | 22.42138546 | 21.42528992 | 21.6747524 |
|----------------------|------------|-----------|-------------|-------------|-------------|-------------|------------|

**PUBLIC DOCUMENT—NOT-PUBLIC AND PROTECTED DATA EXCISED**

- ☐ Not Public Document – Not For Public Disclosure  
☒ Public Document – Not Public Data Has Been Excised  
☐ Public Document

Xcel Energy Information Request No. 7  
Docket No.: E002/M-20-743  
Response To: Minnesota Department of Commerce  
Requestor: Sachin Shah / Nancy Campbell  
Date Received: February 8, 2022

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Question:

Topic: 2021 Sales True-Up  
Reference(s): In the Matter of Northern States Power Company d/b/a Xcel Energy's (Xcel or Company) for Approval of True-Up Mechanisms Petition in Docket No. E002/M-20-743; and the Company's February 1, 2022 Compliance Filing on 2021 Actual Sales and Related Revenue Calculations; and the Company's responses to Department Information Request Nos. 28 and 29 in Docket No. E002/GR-15-826.

Request:

- A. Please supplement the Company's response to IR Nos. 28 and 29 referenced above to the most recent month available.

Where applicable provide all the data in a Microsoft Excel executable format (\*.xlsx) with all links and formulae intact. If any of these links target an outside file, please provide all such additional files.

In addition, whenever acronyms are used in the data given in response to all the parts above, please provide an explanation of all acronyms used AND provide a brief but complete explanation of the source of each data series that is provided.

If this information has already been provided in the Petition or in response to an earlier information request (IR), please identify the specific cite(s) or IR number(s).

Response:

- A. For the update to the above-referenced Company response to DOC Information Request No. 28, Part A, please refer to the cover letter included with the Company's February 1, 2022 Compliance Filing on 2021 Actual Sales



**PUBLIC DOCUMENT—NOT-PUBLIC AND PROTECTED DATA EXCISED**

and Related Revenue Calculations, starting on page 3 (Weather section” and ending on page 6, Table 4.

For the update to the DOC IR No. 28 response, Parts B, C, and D, please refer to Attachment E to the Company’s February 1, 2022 Compliance Filing for details and sales regarding specific customer load losses by customer class due to relocations, business closures, or reduced operations.

- B. For the update to the above-referenced Company response to DOC IR No. 29, Parts A, B, and C--there are no new customers with Combined Heat & Power (CHP) generation since the Company submitted its original response to DOC IR No. 29 in Docket No. E002/GR-15-826. In 2021, CHP plant generation offset customer sales by *[Protected Data Begins Protected Data Ends]* MWh relative the 2016 TY sales, as referenced in Table 4 on page 6 of the February 1, 2022 Compliance Filing. Please refer to the file named 15-0826 DOC-0029\_Attachment A\_ NOT-PUBLIC IN ENTIRETY\_Update 2021.xlsx provided with this present response for actual billing month sales of customers with CHP plant generation updated through December 2021.

This response and its attachment are marked “Not-Public” as they include information the Company considers to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The information has independent economic value from not being generally known to and not being readily ascertainable by other parties who could obtain economic value from its disclosure or use. The information contains not-public data on individuals, which is protected under the Minnesota Data Practices Act. Specific customer data (including the name, address or related usage) consists of “private data on individuals” and “confidential customer data” as recognized under the Minnesota Data Practices Act. As such, any unique information that can identify an individual customer is maintained by Xcel Energy as not-public data and protected from public disclosure.

The attachment to this response is marked as “Not-Public” in its entirety. Pursuant to Minn. Rule 7829.0500, sub. 3, the Company provides the following description of the excised material:

1. **Nature of the Material:** The attachment to this response is a live Excel spreadsheet that includes confidential customer usage information.
2. **Authors:** The Company’s Sales, Energy and Demand Forecasting personnel.
3. **Importance:** The Company protects the customer information as not-public data on individuals.
4. **Date the Information was Prepared:** January 2022.

**PUBLIC DOCUMENT—NOT-PUBLIC AND PROTECTED DATA EXCISED**

Preparer: Luke Jaramillo  
Title: Senior Energy Forecasting Analyst  
Department: Sales, Energy and Demand Forecasting  
Telephone: 303-571-6239  
Date: February 17, 2022

**PUBLIC DOCUMENT—NOT-PUBLIC AND PROTECTED DATA EXCISED**

Northern States Power Company

Docket No. E002/M-20-743  
DOC Information Request No. 7  
Attachment

The attachment provided with the Trade Secret version of this response is marked “Not-Public” as it includes information the Company considers to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The information has independent economic value from not being generally known to and not being readily ascertainable by other parties who could obtain economic value from its disclosure or use. The information contains not-public data on individuals, which is protected under the Minnesota Data Practices Act. Specific customer data (including the name, address or related usage) consists of “private data on individuals” and “confidential customer data” as recognized under the Minnesota Data Practices Act. As such, any unique information that can identify an individual customer is maintained by Xcel Energy as not-public data and protected from public disclosure.

The attachment to this response is marked as “Not-Public” in its entirety. Pursuant to Minn. Rule 7829.0500, sub. 3, the Company provides the following description of the excised material:

1. **Nature of the Material:** The attachment to this response is a live Excel spreadsheet that includes confidential customer usage information.
2. **Authors:** The Company’s Sales, Energy and Demand Forecasting personnel.
3. **Importance:** The Company protects the customer information as not-public data on individuals.
4. **Date the Information was Prepared:** January 2022.

*[Protected Data Begins*

*Protected Data Ends]*

**PUBLIC DOCUMENT—NOT-PUBLIC AND PROTECTED DATA EXCISED**

- ☐ Not Public Document – Not For Public Disclosure  
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☐ Public Document

Xcel Energy Information Request No. 8  
Docket No.: E002/M-20-743  
Response To: Minnesota Department of Commerce  
Requestor: Sachin Shah / Nancy Campbell  
Date Received: February 8, 2022

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Question:

Topic: 2021 Sales True-Up  
Reference(s): In the Matter of Northern States Power Company d/b/a Xcel Energy's (Xcel or Company) for Approval of True-Up Mechanisms Petition in Docket No. E002/M-20-743; and the Company's February 1, 2022 Compliance Filing on 2021 Actual Sales and Related Revenue Calculations; and the Company's responses to Department Information Request Nos. 28 and 29 in Docket No. E002/GR-15-826.

Request:

- A. Please provide the following electronic files in Microsoft Excel (\*.xlsx) format with all links and formulae intact (with 2021 information):
- NSP MN Active Service Reports;
  - NSP MN Elec TAR Volumes;
  - Xcel 100215 15\_B; and
  - Xcel 100215 17.
- B. Please provide the revenue model file (in Microsoft Excel (\*.xlsx) format with all links and formulae intact) that includes and provides the cross reference used for CCOSS classes as well as the cross reference used for the Sales Forecasting major classes.

In addition, whenever acronyms are used in the data given in response to all the parts above, please provide an explanation of all acronyms used AND provide a brief but complete explanation of the source of each data series that is provided.

**PUBLIC DOCUMENT—NOT-PUBLIC AND PROTECTED DATA EXCISED**

If this information has already been provided in the Petition or in response to an earlier information request (IR), please identify the specific cite(s) or IR number(s).

Response:

- A. For NSP MN Active Service Reports updated through December 2021, see the file named Xcel 092421 15\_C\_Update.xlsx provided with this response.

For NSP MN Elec TAR Volumes updated through December 2021, see the file named Xcel 092421 15\_D\_Update.xlsx provided with this response.

For an update to Xcel 100215 15\_B with data through December 2021, see the file named Xcel 092421 15\_B\_Update.xlsx provided with this response. The tab “MN-E-Model Data” therein has not been updated for June to December 2021, because the Company has not yet created an updated forecast for that timeframe. However, we fully anticipate the Model Data for these months to match the data presented on the tab “MN-E Source Data”.

For an update to Xcel 100215 17 with data through December 2021, see the file named Xcel 092421 16 (2021) Update.xlsx provided with this response.

- B. See the file named RevModMN2021ActSTU\_NOT-PUBLIC IN ENTIRETY provided with this response for the revenue model using actual year 2021 sales. Detail by CCOSS is found in the COS tab of the file, summarized in rows 47 through 56. Detail by Sales Forecasting major classes is found in the Sum1 tab.

The revenue model is marked as “Not-Public” as the Company considers it to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The model represents Company work product, and in its design has independent economic value from not being generally known to and not being readily ascertainable by other parties who could obtain economic value from its disclosure or use.

The revenue model is marked as “Not-Public” in its entirety. Pursuant to Minn. Rule 7829.0500, sub. 3, the Company provides the following description of the excised material:

1. **Nature of the Material:** The revenue model is a live Excel spreadsheet.
2. **Authors:** The Company’s Pricing personnel.

**PUBLIC DOCUMENT—NOT-PUBLIC AND PROTECTED DATA EXCISED**

3. **Importance:** The Company protects the revenue model design as trade secret information in that it represents Company work product.

4. **Date the Information was Prepared:** January 2022.

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Preparer: Luke Jaramillo / Nick Paluck  
Title: Senior Energy Forecasting Analyst / Rate Consultant  
Department: Sales, Energy and Demand Forecasting / NSPM Regulatory  
Telephone: (303) 571-6239 / (612) 330-2905  
Date: February 17, 2022

**PUBLIC DOCUMENT—NOT-PUBLIC AND PROTECTED DATA EXCISED**

Northern States Power Company

Docket No. E002/M-20-743  
DOC Information Request No. 8  
Attachment

The attachment named “RevModMN2021ActSTU\_NOT-PUBLIC IN ENTIRETY” provided with the Trade Secret version of this response is marked “Not-Public” as the Company considers it to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The model represents Company work product, and in its design has independent economic value from not being generally known to and not being readily ascertainable by other parties who could obtain economic value from its disclosure or use.

The revenue model is marked as “Not-Public” in its entirety. Pursuant to Minn. Rule 7829.0500, sub. 3, the Company provides the following description of the excised material:

1. **Nature of the Material:** The revenue model is a live Excel spreadsheet.
2. **Authors:** The Company’s Pricing personnel.
3. **Importance:** The Company protects the revenue model design as trade secret information in that it represents Company work product.
4. **Date the Information was Prepared:** January 2022.

*[Protected Data Begins*

*Protected Data Ends]*

## **CERTIFICATE OF SERVICE**

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

**Minnesota Department of Commerce**  
**Public Comments**

**Docket No. E002/M-20-743**

Dated this **1<sup>st</sup>** day of **March 2022**

**/s/Sharon Ferguson**



[illegible]

| First Name | Last Name | Email                             | Company Name                          | Address   | Delivery Method    | View Trade Secret | Service List Name      |
|------------|-----------|-----------------------------------|---------------------------------------|---|--------------------|-------------------|------------------------|
| Riley      | Conlin    | riley.conlin@stoel.com            | Steel Rives LLP                       | 33 S. 6th Street<br>Suite 4200<br>Minneapolis,<br>MN<br>55402                           | Electronic Service | No                | OFF_SL_20-743_Official |
| Brooke     | Cooper    | bcooper@allete.com                | Minnesota Power                       | 30 W Superior St<br><br>Duluth,<br>MN<br>558022191                                      | Electronic Service | No                | OFF_SL_20-743_Official |
| Hillary    | Creurer   | hcreurer@allete.com               | Minnesota Power                       | 30 W Superior St<br><br>Duluth,<br>MN<br>55802  | Electronic Service | No                | OFF_SL_20-743_Official |
| George     | Crocker   | gwillc@nawo.org                   | North American Water<br>Office        | PO Box 174<br><br>Lake Elmo,<br>MN<br>55042   | Electronic Service | No                | OFF_SL_20-743_Official |
| Bridget    | Dockter   | Bridget.Dockter@xcelenergy.com    |                                       | N/A   | Electronic Service | No                | OFF_SL_20-743_Official |
| Marie      | Doyle     | marie.doyle@centerpointenergy.com | CenterPoint Energy                    | 505 Nicollet Mall<br>P O Box 59038<br>Minneapolis,<br>MN<br>554590038                   | Electronic Service | No                | OFF_SL_20-743_Official |
| Michelle   | Dreier    | mdreier@electricalassociation.com |                                       | N/A   | Electronic Service | No                | OFF_SL_20-743_Official |
| Ron        | Elwood    | relwood@mnlisap.org               | Legal Services Advocacy<br>Project    | 970 Raymond Avenue<br>Suite G-40<br>Saint Paul,<br>MN<br>55114                          | Electronic Service | No                | OFF_SL_20-743_Official |
| James C.   | Erickson  | jericksonkbc@gmail.com            | Kelly Bay Consulting                  | 17 Quechee St<br><br>Superior,<br>WI<br>54880-4421                                      | Electronic Service | No                | OFF_SL_20-743_Official |
| John       | Farrell   | jfarrell@ilsr.org                 | Institute for Local Self-<br>Reliance | 2720 E. 22nd St<br>Institute for Local Self-<br>Reliance<br>Minneapolis,<br>MN<br>55406 | Electronic Service | No                | OFF_SL_20-743_Official |
| Eric       | Fehlhaber | efehlhaber@dakotaelectric.com     | Dakota Electric Association           | 4300 220th St W<br><br>Farmington,<br>MN<br>55024                                       | Electronic Service | No                | OFF_SL_20-743_Official |

| First Name | Last Name  | Email                            | Company Name                           | Address   | Delivery Method    | View Trade Secret | Service List Name      |
|------------|------------|----------------------------------|--|---|--------------------|-------------------|------------------------|
| Sharon     | Ferguson   | sharon.ferguson@state.mn.us      | Department of Commerce                 | 85 7th Place E Ste 280<br><br>Saint Paul,<br>MN<br>551012198            | Electronic Service | No                | OFF_SL_20-743_Official |
| Lucas      | Franco     | lfranco@liunagroc.com            | LIUNA                                  | 81 Little Canada Rd E<br><br>Little Canada,<br>MN<br>55117              | Electronic Service | No                | OFF_SL_20-743_Official |
| Daryll     | Fuentes    | energy@usg.com                   | USG Corporation                        | 550 W Adams St<br><br>Chicago,<br>IL<br>60661                           | Electronic Service | No                | OFF_SL_20-743_Official |
| James      | Garness    | james.r.garness@xcelenergy.com   |  | N/A   | Electronic Service | No                | OFF_SL_20-743_Official |
| Edward     | Garvey     | edward.garvey@AESLconsulting.com | AESL Consulting                        | 32 Lawton St<br><br>Saint Paul,<br>MN<br>55102-2617                     | Electronic Service | No                | OFF_SL_20-743_Official |
| Bruce      | Gerhardson | bgerhardson@otpc.com             | Otter Tail Power Company               | PO Box 496<br>215 S Cascade St<br>Fergus Falls,<br>MN<br>565380496      | Electronic Service | No                | OFF_SL_20-743_Official |
| Anita      | Grace      | anita@gracemulticultural.com     | GRACE Multicultural                    | 12959 196th LN NW<br><br>Elk River,<br>MN<br>55330                      | Electronic Service | No                | OFF_SL_20-743_Official |
| Bill       | Grant      | billgrant@minncap.org            | Minnesota Community Action Partnership | MCIT Building<br>100 Empire Dr Ste 202<br>St. Paul,<br>MN<br>55103      | Electronic Service | No                | OFF_SL_20-743_Official |
| Todd J.    | Guerrero   | todd.guerrero@kutakrock.com      | Kutak Rock LLP                         | Suite 1750<br>220 South Sixth Street<br>Minneapolis,<br>MN<br>554021425 | Electronic Service | No                | OFF_SL_20-743_Official |
| Adam       | Heinen     | aheinen@dakotaelectric.com       | Dakota Electric Association            | 4300 220th St W<br><br>Farmington,<br>MN<br>55024                       | Electronic Service | No                | OFF_SL_20-743_Official |
|            |            |                                  |  |   |                    |                   |                        |

| First Name | Last Name        | Email                       | Company Name                     | Address  | Delivery Method    | View Trade Secret | Service List Name      |
|------------|------------------|-----------------------------|----------------------------------|--|--------------------|-------------------|------------------------|
| Annete     | Henkel           | mui@mnuutilityinvestors.org | Minnesota Utility Investors      | 413 Wacouta Street<br>#230<br>St. Paul,<br>MN<br>55101             | Electronic Service | No                | OFF_SL_20-743_Official |
| Corey      | Hintz            | chintz@dakotaelectric.com   | Dakota Electric Association      | 4300 220th Street<br><br>Farmington,<br>MN<br>550249583            | Electronic Service | No                | OFF_SL_20-743_Official |
| Michael    | Hoppe            | lu23@ibew23.org             | Local Union 23, I.B.E.W.         | 445 Etna Street<br>Ste. 61<br>St. Paul,<br>MN<br>55106             | Electronic Service | No                | OFF_SL_20-743_Official |
| MJ         | Horner           | mj.horner@xcelenergy.com    |                                  | N/A  | Electronic Service | No                | OFF_SL_20-743_Official |
| Lori       | Hoyum            | lhoyum@mnpower.com          | Minnesota Power                  | 30 West Superior Street<br><br>Duluth,<br>MN<br>55802              | Electronic Service | No                | OFF_SL_20-743_Official |
| Travis     | Jacobson         | travis.jacobson@mdu.com     | Great Plains Natural Gas Company | 400 N 4th St<br><br>Bismarck,<br>ND<br>58501                       | Electronic Service | No                | OFF_SL_20-743_Official |
| Alan       | Jenkins          | aj@jenkinsatlaw.com         | Jenkins at Law                   | 2950 Yellowtail Ave.<br><br>Marathon,<br>FL<br>33050               | Electronic Service | No                | OFF_SL_20-743_Official |
| Richard    | Johnson          | Rick.Johnson@lawmoss.com    | Moss & Barnett                   | 150 S. 5th Street<br>Suite 1200<br>Minneapolis,<br>MN<br>55402     | Electronic Service | No                | OFF_SL_20-743_Official |
| Sarah      | Johnson Phillips | sarah.phillips@stoel.com    | Stoel Rives LLP                  | 33 South Sixth Street<br>Suite 4200<br>Minneapolis,<br>MN<br>55402 | Electronic Service | No                | OFF_SL_20-743_Official |
| Nick       | Kaneski          | nick.kaneski@enbridge.com   | Enbridge Energy Company, Inc.    | 11 East Superior St Ste 125<br><br>Duluth,<br>MN<br>55802          | Electronic Service | No                | OFF_SL_20-743_Official |
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| Thomas     | Koehler       | TGK@IBEW160.org                 | Local Union #160, IBEW   | 2909 Anthony Ln<br>St Anthony Village,<br>MN<br>55418-3238            | Electronic Service | No                | OFF_SL_20-743_Official |
| Michael    | Krikava       | mkrikava@taftlaw.com            | Taft Stettinius & Hollister<br>LLP                               | 2200 IDS Center<br>80 S 8th St<br>Minneapolis,<br>MN<br>55402         | Electronic Service | No                | OFF_SL_20-743_Official |
| Nicolle    | Kupser        | nkupser@greatermngas.com        | Greater Minnesota Gas,<br>Inc. & Greater MN<br>Transmission, LLC | 1900 Cardinal Ln<br>PO Box 798<br>Faribault,<br>MN<br>55021           | Electronic Service | No                | OFF_SL_20-743_Official |
| James D.   | Larson        | james.larson@avantenergy.com    | Avant Energy Services  | 220 S 6th St Ste 1300<br>Minneapolis,<br>MN<br>55402                  | Electronic Service | No                | OFF_SL_20-743_Official |
| Peder      | Larson        | plarson@larkinhoffman.com       | Larkin Hoffman Daly &<br>Lindgren, Ltd.                          | 8300 Norman Center Drive<br>Suite 1000<br>Bloomington,<br>MN<br>55437 | Electronic Service | No                | OFF_SL_20-743_Official |
| Amber      | Lee           | Amber.Lee@centerpointenergy.com | CenterPoint Energy   | 505 Nicollet Mall<br>Minneapolis,<br>MN<br>55402                      | Electronic Service | No                | OFF_SL_20-743_Official |
| Annie      | Levenson Falk | annief@cupminnesota.org         | Citizens Utility Board of<br>Minnesota                           | 332 Minnesota Street,<br>Suite W1360<br>St. Paul,<br>MN<br>55101      | Electronic Service | No                | OFF_SL_20-743_Official |
| Ryan       | Long          | ryan.j.long@xcelenergy.com      | Xcel Energy  | 414 Nicollet Mall<br>401 8th Floor<br>Minneapolis,<br>MN<br>55401     | Electronic Service | No                | OFF_SL_20-743_Official |
| Susan      | Ludwig        | sludwig@mnpower.com             | Minnesota Power  | 30 West Superior Street<br>Duluth,<br>MN<br>55802                     | Electronic Service | No                | OFF_SL_20-743_Official |
| Kavita     | Maini         | kmmaini@wi.rr.com               | KM Energy Consulting,<br>LLC                                     | 961 N Lost Woods Rd<br>Oconomowoc,<br>WI<br>53066                     | Electronic Service | No                | OFF_SL_20-743_Official |

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| Pam        | Marshall  | pam@energycents.org              | Energy CENTS Coalition              | 823 7th St E<br><br>St. Paul,<br>MN<br>55106                                     | Electronic Service | No                | OFF_SL_20-743_Official |
| Brian      | Meloy     | brian.meloy@stinson.com          | STINSON LLP                         | 50 S 6th St Ste 2600<br><br>Minneapolis,<br>MN<br>55402                          | Electronic Service | No                | OFF_SL_20-743_Official |
| Joseph     | Meyer     | joseph.meyer@ag.state.mn.us      | Office of the Attorney General-RUD  | Bremer Tower, Suite 1400<br>445 Minnesota Street<br>St Paul,<br>MN<br>55101-2131 | Electronic Service | No                | OFF_SL_20-743_Official |
| Stacy      | Miller    | stacy.miller@minneapolisn.gov    | City of Minneapolis                 | 350 S. 5th Street<br>Room M 301<br>Minneapolis,<br>MN<br>55415                   | Electronic Service | No                | OFF_SL_20-743_Official |
| David      | Moeller   | dmoeller@allete.com              | Minnesota Power                     | 30 W Superior St<br><br>Duluth,<br>MN<br>558022093                               | Electronic Service | No                | OFF_SL_20-743_Official |
| Andrew     | Moratzka  | andrew.moratzka@stoel.com        | Stoel Rives LLP                     | 33 South Sixth St Ste 4200<br><br>Minneapolis,<br>MN<br>55402                    | Electronic Service | No                | OFF_SL_20-743_Official |
| David      | Niles     | david.niles@avantenergy.com      | Minnesota Municipal Power Agency    | 220 South Sixth Street<br>Suite 1300<br>Minneapolis,<br>Minnesota<br>55402       | Electronic Service | No                | OFF_SL_20-743_Official |
| Samantha   | Norris    | samanthanorris@alliantenergy.com | Interstate Power and Light Company  | 200 1st Street SE PO Box 351<br><br>Cedar Rapids,<br>IA<br>524060351             | Electronic Service | No                | OFF_SL_20-743_Official |
| Matthew    | Olsen     | molsen@otpc.com                  | Otter Tail Power Company            | 215 South Cascade Street<br><br>Fergus Falls,<br>MN<br>56537                     | Electronic Service | No                | OFF_SL_20-743_Official |
| Carol A.   | Overland  | overland@legalelectric.org       | Legalelectric - Overland Law Office | 1110 West Avenue<br><br>Red Wing,<br>MN<br>55066                                 | Electronic Service | No                | OFF_SL_20-743_Official |

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| John           | Pacheco                        | johnpachecojr@gmail.com               |  | N/A   | Electronic Service | No                | OFF_SL_20-743_Official |
| Greg           | Palmer                         | gpalmer@greatermngas.com              | Greater Minnesota Gas, Inc. & Greater MN Transmission, LLC | 1900 Cardinal Ln<br>PO Box 798<br>Faribault, MN<br>55021        | Electronic Service | No                | OFF_SL_20-743_Official |
| Jose           | Perez                          | jose@hispanicsinenergy.com            | Hispanics in Energy  | 1017 L Street #719<br><br>Sacramento, CA<br>95814               | Electronic Service | No                | OFF_SL_20-743_Official |
| Jennifer       | Peterson                       | jjpeterson@mnpower.com                | Minnesota Power  | 30 West Superior Street<br><br>Duluth, MN<br>55802              | Electronic Service | No                | OFF_SL_20-743_Official |
| Catherine      | Phillips                       | Catherine.Phillips@wecenergygroup.com | Minnesota Energy Resources                                 | 231 West Michigan St<br><br>Milwaukee, WI<br>53203              | Electronic Service | No                | OFF_SL_20-743_Official |
| Kevin          | Pranis                         | kpranis@liunagroc.com                 | Laborers' District Council of MN and ND                    | 81 E Little Canada Road<br><br>St. Paul, Minnesota<br>55117     | Electronic Service | No                | OFF_SL_20-743_Official |
| Generic Notice | Residential Utilities Division | residential.utilities@ag.state.mn.us  | Office of the Attorney General-RUD                         | 1400 BRM Tower<br>445 Minnesota St<br>St. Paul, MN<br>551012131 | Electronic Service | Yes               | OFF_SL_20-743_Official |
| Kevin          | Reuther                        | kreuther@mncenter.org                 | MN Center for Environmental Advocacy                       | 26 E Exchange St, Ste 206<br><br>St. Paul, MN<br>551011667      | Electronic Service | No                | OFF_SL_20-743_Official |
| Susan          | Romans                         | sromans@allete.com                    | Minnesota Power  | 30 West Superior Street<br>Legal Dept<br>Duluth, MN<br>55802    | Electronic Service | No                | OFF_SL_20-743_Official |
| Richard        | Savelkoul                      | rsavelkoul@martinsquires.com          | Martin & Squires, P.A.                                     | 332 Minnesota Street Ste W2750<br><br>St. Paul, MN<br>55101     | Electronic Service | No                | OFF_SL_20-743_Official |
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| Elizabeth  | Schmiesing     | eschmiesing@winthrop.com             | Winthrop & Weinstine, P.A.                       | 225 South Sixth Street<br>Suite 3500<br>Minneapolis,<br>MN<br>55402 | Electronic Service | No                | OFF_SL_20-743_Official |
| Will       | Seuffert       | Will.Seuffert@state.mn.us            | Public Utilities Commission                      | 121 7th Pl E Ste 350<br><br>Saint Paul,<br>MN<br>55101              | Electronic Service | Yes               | OFF_SL_20-743_Official |
| Janet      | Shaddix Elling | jshaddix@janetshaddix.com            | Shaddix And Associates                           | 7400 Lyndale Ave S Ste 190<br><br>Richfield,<br>MN<br>55423         | Electronic Service | No                | OFF_SL_20-743_Official |
| Colleen    | Sipiorski      | Colleen.Sipiorski@wecenergygroup.com | Minnesota Energy Resources Corporation           | 700 North Adams St<br><br>Green Bay,<br>WI<br>54307                 | Electronic Service | No                | OFF_SL_20-743_Official |
| Ken        | Smith          | ken.smith@districtenergy.com         | District Energy St. Paul Inc.                    | 76 W Kellogg Blvd<br><br>St. Paul,<br>MN<br>55102                   | Electronic Service | No                | OFF_SL_20-743_Official |
| Peggy      | Sorum          | peggy.sorum@centerpointenergy.com    | CenterPoint Energy                               | 505 Nicollet Mall<br><br>Minneapolis,<br>MN<br>55402                | Electronic Service | No                | OFF_SL_20-743_Official |
| Jamez      | Staples        | jstaples@renewableenergypartners.com | Renewable Energy Partners                        | 3033 Excelsior Blvd S<br><br>Minneapolis,<br>MN<br>55416            | Electronic Service | No                | OFF_SL_20-743_Official |
| Byron E.   | Starns         | byron.starns@stinson.com             | STINSON LLP                                      | 50 S 6th St Ste 2600<br><br>Minneapolis,<br>MN<br>55402             | Electronic Service | No                | OFF_SL_20-743_Official |
| Richard    | Stasik         | richard.stasik@wecenergygroup.com    | Minnesota Energy Resources Corporation (HOLDING) | 231 West Michigan St - P321<br><br>Milwaukee,<br>WI<br>53203        | Electronic Service | No                | OFF_SL_20-743_Official |
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| Kristin    | Stastny    | kstastny@taftlaw.com                | Taft Stettinius & Hollister LLP     | 2200 IDS Center<br>80 South 8th St<br>Minneapolis,<br>MN<br>55402                    | Electronic Service | No                | OFF_SL_20-743_Official |
| Cary       | Stephenson | cStephenson@otpco.com               | Otter Tail Power Company            | 215 South Cascade Street<br><br>Fergus Falls,<br>MN<br>56537                         | Electronic Service | No                | OFF_SL_20-743_Official |
| James M    | Strommen   | jstrommen@kennedy-graven.com        | Kennedy & Graven,<br>Chartered      | 150 S 5th St Ste 700<br><br>Minneapolis,<br>MN<br>55402                              | Electronic Service | No                | OFF_SL_20-743_Official |
| Eric       | Swanson    | eswanson@winthrop.com               | Winthrop & Weinstine                | 225 S 6th St Ste 3500<br>Capella Tower<br>Minneapolis,<br>MN<br>554024629            | Electronic Service | No                | OFF_SL_20-743_Official |
| Lynnette   | Sweet      | Regulatory.records@xcelenergy.com   | Xcel Energy                         | 414 Nicollet Mall FL 7<br><br>Minneapolis,<br>MN<br>554011993                        | Electronic Service | Yes               | OFF_SL_20-743_Official |
| Stuart     | Tommerdahl | stommerdahl@otpco.com               | Otter Tail Power Company            | 215 S Cascade St<br>PO Box 496<br>Fergus Falls,<br>MN<br>56537                       | Electronic Service | No                | OFF_SL_20-743_Official |
| Thomas     | Tynes      | jjazynka@energyfreedomcoalition.com | Energy Freedom Coalition of America | 101 Constitution Ave NW<br>Ste 525 East<br><br>Washington,<br>DC<br>20001            | Electronic Service | No                | OFF_SL_20-743_Official |
| Analeisha  | Vang       | avang@mnpower.com                   | Minnesota Power                     | 30 W Superior St<br><br>Duluth,<br>MN<br>558022093                                   | Electronic Service | No                | OFF_SL_20-743_Official |
| Lisa       | Veith      | lisa.veith@ci.stpaul.mn.us          | City of St. Paul                    | 400 City Hall and<br>Courthouse<br>15 West Kellogg Blvd.<br>St. Paul,<br>MN<br>55102 | Electronic Service | No                | OFF_SL_20-743_Official |
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| Samantha   | Williams  | swilliams@nrdc.org    | Natural Resources Defense Council | 20 N. Wacker Drive<br>Ste 1600<br>Chicago,<br>IL<br>60606                | Electronic Service | No                | OFF_SL_20-743_Official |
| Joseph     | Windler   | jwindler@winthrop.com | Winthrop & Weinstine              | 225 South Sixth Street,<br>Suite 3500<br><br>Minneapolis,<br>MN<br>55402 | Electronic Service | No                | OFF_SL_20-743_Official |
| Patrick    | Zomer     | Pat.Zomer@lawmoss.com | Moss & Barnett PA                 | 150 S 5th St #1200<br><br>Minneapolis,<br>MN<br>55402                    | Electronic Service | No                | OFF_SL_20-743_Official |