

May 2, 2022

PUBLIC DOCUMENT

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th 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-22-161

Dear Mr. Seuffert:

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

In the Matter of Xcel Energy's Renewable*Connect Pilot Program Compliance Filing.

The Compliance Filing was filed on April 1, 2022 by:

Holly Hinman
Regulatory Manager
holly.r.hinman@xcelenergy.com

The Department recommends that the Minnesota Public Utilities Commission (Commission) accept Xcel Energy's 2022 Renewable*Connect Annual Compliance Filing and Tracker Account Report. The Department is available to answer any questions that the Commission may have in this matter.

Sincerely,

/s/ WILL NISSEN
Public Utilities Rates Analyst

WN/ja
Attachment



Before the Minnesota Public Utilities Commission

PUBLIC Comments of the Minnesota Commerce Department Division of Energy Resources

Docket No. E002/M-22-161

I. INTRODUCTION

On February 27, 2017, the Minnesota Public Utilities Commission (Commission) issued its *Order Approving Pilot Programs and Requiring Filings* in the matter of Northern States Power Company d/b/a Xcel Energy's (Xcel or the Company) request for approval of its Renewable*Connect (R*C) Pilot Program in Docket No. E002/M-15-985 (Order). In that Order the Commission required Xcel to file annual compliance filings "each April 1 after the first full year of operation" of the pilot program.¹

On April 1, 2022, Xcel submitted its annual compliance filing for pilot program year 2021 (Compliance Filing).

The Department provides the following analysis and recommendations.

II. SUMMARY OF THE FILING

The Commission's February 27, 2017 Order in Docket No. E002/M-15-985 set out the following annual reporting requirements for the Renewable*Connect program:

1. Total number of participants by customer class and contract length
2. Total wind production
3. Total solar production
4. Total R*C expenses
5. Total R*C Government expenses
6. Total Amount collected in R*C charges
7. Total Amount collected in R*C Government charges
8. Tracker balances
9. Monthly comparisons of R*C Pricing for participants with the Fuel Charge for nonparticipant customers
10. Impact of R*C pilots on all nonparticipant customers
11. Impact on all Xcel Ratepayers through updates in base rates
12. Information on the number of terminations and an accounting of termination fees

¹ *In the Matter of Northern States Power Company d/b/a Xcel Energy's Request for Approval of its Renewable*Connect Pilot Program*, ORDER APPROVING PILOT PROGRAMS AND REQUIRING FILINGS, Docket No. E002/M-15-985, February 27, 2017.

As demonstrated below in the Department's analysis, Xcel has provided sufficient information in this compliance filing to meet each of these reporting requirement components.

III. DEPARTMENT ANALYSIS

This compliance filing marks the fifth year of program data for the R*C Pilot Program since the pilot launched in April 2017. The Department provided year-over-year comparisons of each required reporting component since the pilot's inception in our June 2, 2021 comments filed in Docket No. E002/M-21-234 through program year 2020. The Department provides updated year-over-year comparisons that include data from program year 2021 below.

A. NUMBER OF PARTICIPANTS BY CUSTOMER CLASS AND CONTRACT LENGTH

Table 1 below summarizes the information provided by Xcel regarding its R*C customer participation from 2017-2021.

Table 1: Renewable*Connect Participation 2017-2021²

Customer Class	Monthly	5 Year	10 Year	Total
Residential				
2017	843	767	494	2,104
2018	1,500	1,096	621	3,217
2019	1,295	1,090	597	2,982
2020	1,187	1,059	594	2,840
2021	1,060	1,017	570	2,647
Commercial				
2017	11	11	10	32
2018	16	14	39	37
2019	15	14	7	36
2020	13	16	7	36
2021	12	16	7	35
Demand Billed				
2017	28	16	30	74
2018	30	43	39	112
2019	26	41	50	117
2020	27	43	50	120
2021	27	43	50	120
Total				

² Data from tables in these comments are pulled from compliance filings in Docket Nos. E002/M-18-252, E002/M-19-270, E002/M-20-380, E002/M-21-234, and E002/M-22-161. 2017 data is for April 1, 2017 through December 31, 2017.

2017	882	794	534	2,210
2018	1,546	1,153	667	3,366
2019	1,336	1,145	654	3,135
2020	1,227	1,118	651	2,996
2021	1,099	1,076	627	2,802

In its compliance program filings, Xcel also provided information demonstrating the program's subscription level and number of customers on the waitlist for each year. Table 2 below summarizes this information.

Table 2. Renewable*Connect Program Demand 2017-2021

Program Year	% of Program Subscribed	# of Customers on Waitlist (EOY)
2017	64%	0
2018	100%	1,100
2019	100%	2,350
2020	100%	3,217
2021	100%	6,545

In its October 12, 2021 Order in Docket No. E002/M-21-234, the Commission approved the Department's recommendation that Xcel address the size of any waitlist for participation in the R*C program, and plans to served waitlisted customers, in the Company's next annual report.³ In its Compliance Filing, Xcel stated that "we have enrolled a handful of customers from the waitlist when space in the program became available...and we will continue to do so until the Renewable*Connect expansion program becomes available."⁴ In addition, Xcel stated that all large commercial and industrial customers currently on the waitlist have submitted a Memorandum of Understanding and will be in the priority ranking for enrollment when the R*C expansion program is launched.

The Department appreciates the information provided by Xcel and understands that program space is limited until the R*C expansion program is launched. The Department concludes that Xcel has complied with Order Point 2 from the Commission's October 12, 2021 in Docket No. E002/M-21-234.

B. TOTAL WIND AND SOLAR PRODUCTION

Table 3 below summarizes the information provided by Xcel for R*C wind and solar production from 2017-2021.

³ Commission Order issued October 12, 2021 in Docket No. E002/M-21-234. Order Point 2.

⁴ Compliance Filing. Page 8.

Table 3. Wind and Solar Production 2017-2021

Program Year	Wind	Solar
2017	[TRADE SECRET DATA HAS BEEN EXCISED]	
2018		
2019		
2020		
2021		

C. RENEWABLE*CONNECT REVENUES AND EXPENSES

Table 4 below summarizes the information provided by Xcel for R*C revenues and expenses from 2017-2021.

Table 4. Renewable*Connect Revenue and Expenses 2017-2021

	2017	2018	2019	2020	2021
Revenue					
Customer payments:	[TRADE SECRET DATA HAS BEEN EXCISED]				
Month-to-Month					
5-Year Contract					
10-Year Contract					
Other:					
Capacity Credit					
Total Revenue					
Expenses	[TRADE SECRET DATA HAS BEEN EXCISED]				
Resource Production Cost					
Neutrality Charges					
Market & Admin.					
Total Expenses					
Balance	-\$335,426	\$331,674	\$407,717	\$272,346	\$115,025

Over the last four years the R*C program has covered program expenses through month-to-month and long-term contracts with participating customers. In 2017, much of the negative program balance can be attributed to first-year marketing and administration costs.

*D. RENEWABLE*CONNECT GOVERNMENT REVENUES AND EXPENSES*

Table 5 below summarizes the information provided by Xcel for R*C Government revenues and expenses from 2017-2021.

Table 5. Renewable*Connect Government Revenues and Expenses 2017-2021

	2017	2018	2019	2020	2021
Revenue					
Customer payments:					
Month-to-Month	[TRADE SECRET DATA HAS BEEN EXCISED]				
Other:					
Capacity Credit					
Total Revenue					
Expenses	[TRADE SECRET DATA HAS BEEN EXCISED]				
Resource Production Cost					
Neutrality Charges					
Market & Admin.					
Total Expenses					
Balance	\$11,273	\$57,701	\$9,835	\$12,390	(\$2,423)

E. TRACKER ACCOUNT REPORT

As in previous years, Xcel provided a Tracker Account Report in this compliance filing documenting necessary program details. Tables 4 and 5, above, summarize the revenues and expenses for the R*C program and R*C Government program.

*F. RENEWABLE*CONNECT PRICING AND FUEL CLAUSE RATES*

Xcel stated in the Compliance Filing that the R*C pricing rates for all subscription classes were higher than all non-on-peak fuel clause rates in 2021. This has been a consistent trend through all four program years, as Xcel reported the same outcome for 2017-2020. The Department notes, however, that Figure 1 on page 5 of Xcel's Compliance Filing appears to show that the pricing rate for R*C 5-Year, R*C 10-Year, and R*C Government was slightly lower than the Residential Fuel Clause and Non-TOD C&I Fuel Clause in June 2021. However, the Department does not have concerns with R*C pricing rates at this time.

G. *IMPACT OF RENEWABLE*CONNECT ON NON-PARTICIPATING CUSTOMERS*

Xcel provided a year-over-year summary of various components related to non-participant impacts from 2017-2021 on page 7 of the Compliance Filing. That summary is provided in Table 6 below.

Table 6. Renewable*Connect Non-Participant Impacts 2017-2021

(in \$000s)	Total	2021	2020	2019	2018	2017
Line Losses	\$2,302	\$677	\$641	\$532	\$359	\$92
Solar Curtailments	\$120	\$29	\$66	\$17	\$4	\$3
Wind Curtailments	\$351	\$302	\$35	\$11	\$4	\$0
Economic/Balancing	\$920	\$228	\$230	\$227	\$185	\$50
Total	\$3,693	\$1,236	\$973	\$787	\$552	\$145
Neutrality Payments	\$3,555	\$876	\$891	\$884	\$717	\$187
Non-Participant Cost/(Benefit)	\$137	\$360	\$82	(\$97)	(\$165)	(\$42)
Net Economic Cost/(Benefit)	(\$4,995)	\$566 ⁵	(\$2,889)	(\$1,792)	(\$688)	(\$244)
Total Cost/(Benefit)	(\$4,858)	\$977	(\$2,807)	(\$1,889)	(\$853)	(\$286)

The Department notes that the 2021 program year saw a significant increase in non-participant costs associated with the R*C program. Based on the results in Table 6, this appears to be primarily due to significant increases in wind curtailment and continuing increases in line losses. Regarding wind curtailment, the Department understands that this is a broader issue extending beyond the impacts of the R*C program. The Department discusses these issues in greater detail in comments filed on April 13, 2022, in Xcel's *Petition for Approval of its Annual True-Up Compliance Report for its 2021 Annual Fuel Forecast and Monthly Fuel Cost Charges*.⁶

The Department issued an information request (IR) in Xcel's 2021 compliance filing (Docket No. E002/M-21-234) regarding the significant increase in costs related to line losses from 2017-2020. In response to DOC IR 2 in that docket, Xcel stated that "line loss cost is a function of Renewable*Connect [Power Purchase Agreement (PPA)] production costs" and that "since the price of the PPAs that supply Renewable*Connect increase each year, the production costs increased each year, including 2020, and

⁵ Through email correspondence between the Department and Xcel, the Company indicated that the calculation for Net Economic Cost for the 2021 program year shown in Table 6 of the Company's April 1, 2022 Compliance Filing used 2020 production costs instead of 2021 production costs. Once adjusted, the Net Economic Cost for the 2021 was \$566,303. The Department provides the corrected figure here.

⁶ Comments filed April 13, 2022 by the Department in Docket No. E002/AA-20-417. Pages 13-15.

will likely continue to increase over time assuming the program is fully subscribed.”⁷ In addition, Xcel stated that:

For the 2021 compliance filing (2020 reporting year), the Company made a change by reporting line loss based on the actual line loss percentage. In previous years, a historical line loss average rate estimate was used. However, for each previous year the Company has recalculated the line losses using actual line loss rates to be consistent with the current year’s reporting of line losses.⁸

Xcel provided actual line loss calculations in Attachment B of DOC IR 2 for program years 2017-2020 as a percentage of production costs. The Department provides those percentages and calculates the line loss percent for program year 2021 in Table 7 below.

Table 7. Renewable*Connect Line Loss Percentages 2017-2021

Program Year	Line Losses as a % of Sales
2017	6.9%
2018	7.46%
2019	8.92%
2020	10.45%
2021	10.94% ⁹

The Department requests that Xcel provide any information regarding efforts to reduce line loss expenses for the R*C program specifically or across broader actions taken by the Company in Reply Comments.

In addition, the Department notes that the 2021 program year marks the first year in which the R*C program incurred a net economic cost to Xcel’s system. The Net Economic Cost for R*C is calculated by subtracting R*C production costs from the Total Marginal Cost of multiplying R*C sales by Local Marginal Prices over the program year, indicating that R*C production costs were lower than LMP costs for program year 2021.

If Net Economic Costs continue to rise in program year 2022, the Department recommends that Xcel provide a detailed explanation as to why this is happening and describe potential steps to mitigate impacts to Xcel’s system in its 2023 R*C program compliance filing.

⁷ DOC IR 2 from Docket No. E002/M-21-234. Included as Attachment A.

⁸ *Id.*

⁹ The Department calculated this percentage as the total line loss expenses for 2021 from Table 6 (\$677,000) by the sum of the resource production costs for R*C and R*C Government for 2021 from Tables 4 and 5 (\$6,190,135).

*H. IMPACT OF RENEWABLE*CONNECT ON BASE RATES*

Xcel indicated that there were no impacts on base rates in 2021, which was also the case in the 2017-2020 program years.

I. NUMBER OF TERMINATIONS AND TERMINATION FEES

Xcel stated that there were 89 residential customer terminations of 5- or 10-year contracts in 2021, resulting in a total of \$5,353 in termination fees, and that there were no business customer terminations of a 5- or 10-year contract in 2021.

J. NEUTRALITY ADJUSTMENTS

The Company continues to rely on wind integration costs developed in the Dakota Range I and II filing (Docket No. E002/M-17-694) as part of its non-participant analysis. Xcel noted that it included a seasonal balancing cost analysis in the April 1, 2021 petition to expand the R*C program in Docket No. E002/M-21-222. Because the Commission has not issued an Order in that docket at the time of these comments, the Department concludes that using the wind integration costs developed in the Dakota Range I and II filing is appropriate for the non-participant analysis in program year 2021.

IV. CONCLUSION AND RECOMMENDATIONS

The Department concludes that Xcel has met its reporting requirements for this compliance filing and recommends that the Commission accept the Company's 2022 Renewable*Connect Annual Compliance Filing and Tracker Account Report. The Department also requests that Xcel provide any information regarding efforts to reduce line loss expenses for the R*C program specifically or across broader actions taken by the Company in Reply Comments. In addition, if the R*C program continues to incur a net economic cost in program year 2022, the Department recommends that Xcel provide a detailed explanation as to why those costs are being incurred and describe potential steps to mitigate impacts to Xcel's system in the Company's 2023 R*C program compliance filing.

ATTACHMENT A

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

Xcel Energy Information Request No. 2
Docket No.: E002/M-21-234
Response To: Department of Commerce
Requestor: Will Nissen and Sue Peirce
Date Received: May 11, 2021

Question:

Topic: Renewable*Connect Compliance Filing
Reference(s): Compliance Filings in Docket Nos. E002/M-18-252, E002/M-19-270, E002/M-20-380, and E002/M-21-234

Request:

Xcel's Renewable*Connect compliance filings in the referenced dockets indicate a steady increase in line losses associated with the program's non-participant impacts and neutrality charges. The table below summarizes the line losses filed for each program year from 2017-2020.

Year	Line Losses
2017	\$94,282
2018	\$341,813
2019	\$423,679
2020	\$641,278

Please provide information, analysis, and an explanation as to why line losses associated with Renewable*Connect have increased at such a steady rate, particularly as program subscriptions have decreased slightly each year since 2018.

Response:

Line loss cost is a function of Renewable*Connect PPA production costs. Renewable*Connect PPA production costs have increased each year due to two primary reasons. First, Renewable*Connect wasn't fully subscribed until midway through 2018, so 2019 was the first calendar year that the program was fully subscribed for the entire year. Second, since the price of the PPAs that supply Renewable*Connect increase each year, the production costs increased each year, including 2020, and will likely continue to increase over time assuming the program is

fully subscribed. Please see Attachment A to this response for the line loss calculation supporting the figures included in the question.

For the 2021 compliance filing (2020 reporting year), the Company made a change by reporting line loss based on the actual line loss percentage. In previous years, a historical line loss average rate estimate was used. However, for each previous year the Company has recalculated the line losses using actual line loss rates to be consistent with the current year's reporting of line losses. The recalculated line loss costs are included in Attachment B to this response. As can be seen in Attachment B, line losses as a percentage of sales have increased each year over the past four years.

Preparer:	Nick Paluck
Title:	Rate Consultant
Department:	Regulatory Analysis
Telephone:	612.330.2905
Date:	May 19, 2021

Line Losses - Actuals & Estimate

	2020 Actuals												Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Production Cost	\$508,435	\$505,271	\$507,563	\$475,421	\$446,423	\$493,136	\$566,631	\$552,429	\$538,778	\$493,145	\$525,969	\$525,830	\$6,139,030
Losses as a % of sales	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	
Losses	\$53,111	\$52,780	\$53,020	\$49,662	\$46,633	\$51,513	\$59,190	\$57,706	\$56,280	\$51,514	\$54,942	\$54,928	\$641,278
	2019 Estimate												Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Production Cost	\$499,600	\$486,911	\$507,766	\$481,103	\$466,286	\$472,317	\$528,508	\$551,405	\$453,520	\$588,919	\$450,957	\$480,010	\$5,967,303
Loss Factor - System Average	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	
Losses	\$35,472	\$34,571	\$36,051	\$34,158	\$33,106	\$33,534	\$37,524	\$39,150	\$32,200	\$41,813	\$32,018	\$34,081	\$423,679
	2018 Estimate												Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Production Cost	\$335,457	\$326,072	\$326,409	\$323,975	\$325,422	\$321,039	\$346,372	\$504,055	\$531,287	\$510,283	\$477,495	\$486,401	\$4,814,268
Loss Factor - System Average	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	
Losses	\$23,817	\$23,151	\$23,175	\$23,002	\$23,105	\$22,794	\$24,592	\$35,788	\$37,721	\$36,230	\$33,902	\$34,534	\$341,813
	2017 Estimate												Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Production Cost	\$0	\$0	\$0	\$0	\$16,019	\$28,672	\$21,961	\$106,017	\$266,941	\$279,026	\$331,304	\$277,981	\$1,327,920
Loss Factor - System Average	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%	
Losses	\$0	\$0	\$0	\$0	\$1,137	\$2,036	\$1,559	\$7,527	\$18,953	\$19,811	\$23,523	\$19,737	\$94,282

Line Losses - Actuals

	2020 Actuals												Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Production Cost	\$508,435	\$505,271	\$507,563	\$475,421	\$446,423	\$493,136	\$566,631	\$552,429	\$538,778	\$493,145	\$525,969	\$525,830	\$6,139,030
Losses as a % of sales	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	
Losses	\$53,111	\$52,780	\$53,020	\$49,662	\$46,633	\$51,513	\$59,190	\$57,706	\$56,280	\$51,514	\$54,942	\$54,928	\$641,278
	2019 Actuals												Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Production Cost	\$499,600	\$486,911	\$507,766	\$481,103	\$466,286	\$472,317	\$528,508	\$551,405	\$453,520	\$588,919	\$450,957	\$480,010	\$5,967,303
Loss Factor - System Average	8.92%	8.92%	8.92%	8.92%	8.92%	8.92%	8.92%	8.92%	8.92%	8.92%	8.92%	8.92%	
Losses	\$44,582	\$43,450	\$45,311	\$42,931	\$41,609	\$42,147	\$47,161	\$49,205	\$40,470	\$52,552	\$40,241	\$42,834	\$532,493
	2018 Actuals												Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Production Cost	\$335,457	\$326,072	\$326,409	\$323,975	\$325,422	\$321,039	\$346,372	\$504,055	\$531,287	\$510,283	\$477,495	\$486,401	\$4,814,268
Loss Factor - System Average	7.46%	7.46%	7.46%	7.46%	7.46%	7.46%	7.46%	7.46%	7.46%	7.46%	7.46%	7.46%	
Losses	\$25,040	\$24,339	\$24,364	\$24,183	\$24,291	\$23,964	\$25,854	\$37,624	\$39,657	\$38,089	\$35,642	\$36,307	\$359,354
	2017 Actuals												Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Production Cost	\$0	\$0	\$0	\$0	\$16,019	\$28,672	\$21,961	\$106,017	\$266,941	\$279,026	\$331,304	\$277,981	\$1,327,920
Loss Factor - System Average	6.90%	6.90%	6.90%	6.90%	6.90%	6.90%	6.90%	6.90%	6.90%	6.90%	6.90%	6.90%	
Losses	\$0	\$0	\$0	\$0	\$1,105	\$1,978	\$1,515	\$7,314	\$18,415	\$19,249	\$22,855	\$19,177	\$91,608