Direct Testimony and Schedule Leah N. Peterson

Before the Minnesota Public Utilities Commission

State of Minnesota

In the Matter of the Application of Minnesota Power For Authority to Increase Rates for Electric Utility Service in Minnesota

Docket No. E015/GR-23-155

Exhibit _____

RATE DESIGN

November 1, 2023

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1		I. INTRODUCTION AND QUALIFICATIONS
2	Q.	Please state your name and business address.
3	A.	My name is Leah N. Peterson, and my business address is 30 West Superior Street,
4		Duluth, Minnesota, 55802.
5		
6	Q.	By whom are you employed and in what position?
7	A.	I am employed by ALLETE, Inc., doing business as Minnesota Power ("Minnesota
8		Power" or the "Company"). My position is Manager – Customer Analytics.
9		
10	Q.	Please summarize your qualifications and experience.
11	A.	I have a Master of Business Administration and Master of Arts in Business Management
12		from the College of Saint Scholastica. I also have a Bachelor of Science degree with a
13		double major in Business Administration and Management Information Systems from
14		the University of Wisconsin-River Falls. I have been employed by Minnesota Power
15		since 2008. My previous positions at Minnesota Power include Energy Pricing Analyst,
16		Marketing Analyst, Supervisor - Key Account Analysis, and Supervisor Customer
17		Business Analytics. In 2020, my role was expanded to include rate design
18		responsibilities and in mid-2022, I was promoted to Manager – Customer Analytics.
19		
20	Q.	Have you previously testified before regulatory bodies?
21	А.	Yes. I previously testified in Minnesota Power's 2021 Rate Case, Docket No. E015/GR-
22		21-335 ("2021 Rate Case"), before the Minnesota Public Utilities Commission
23		("Commission").
24		
25	Q.	What is the purpose of your testimony?
26	A.	The purpose of my testimony is to support Minnesota Power's rate design for the 2024
27		test year and proposed rates. My testimony addresses the distribution of increased
28		revenue requirements among the classes of service; the design of the Company's
29		proposed rates for Minnesota Power's retail customer classes (Residential, General

1		Service, Large Light and Power ("LL&P"), Large Power ("LP"), and Lighting); and a
2		comparison of present and proposed rates for these customer classes.
3		
4	Q.	How is your testimony organized?
5	A.	My testimony is organized into two sections. The first section focuses on the Company's
6		rate design process. The second section focuses on the Company's proposed rate design
7		and retail rates.
8		
9	Q.	Are you sponsoring any exhibits in this proceeding?
10	A.	Yes. I am sponsoring the following schedule to my Direct Testimony:
11		• MP Exhibit (Peterson), Direct Schedule 1 – Summary of Proposed Rate
12		Increases by Customer Class.
13		
14		II. RATE DESIGN PROCESS
15	Q.	What is the purpose of this section of your testimony?
16	A.	In this section of my testimony, I describe the process the Company followed to develop
17		its proposed rate design for this rate case using the class cost of service study
18		("CCOSS"), revenue apportionment, and other considerations, such as rate design
19		principles, state policies, and the strategic goals of the Company.
20		
21	Q.	Please describe the term "rate design" in more detail.
22	A.	The term "rate design" generally refers to the process used to allocate revenue
23		requirements to a utility's customer classes. The rate design process uses the retail
24		revenue requirements from the CCOSS as a starting point, which is then adjusted
25		through apportionment. There are several rate design principles and policies to keep in
26		mind when designing rates. Rate development involves addressing multiple objectives
27		and should result in a rate design that is practical, is easily understood and clearly
28		interpretated, is based on the cost of providing service and meets the appropriate revenue
29		requirement based on those costs, provides relatively stable revenues, avoids
30		unnecessary rate shock, and encourages conservation.

2

A.

Class Cost of Service

Q. Please describe how the Company developed its test year projections for number of customers and billing units by customer class that is used in the Company's CCOSS.

- 6 Minnesota Power's test year projections for number of customers and billing units by A. 7 revenue class (*e.g.*, residential, commercial, etc.) are developed using three key sources: 8 1) the econometric forecasts from the 2023 Annual Forecast Report ("AFR")¹ in 9 Volume 4, Workpaper OS-4, 2) projections of individual usage by customer for non-10 mining large industrial and municipal customers, and 3) an average operating rate for 11 Mining and Metals customers. More detail of these projections can be found in the 12 Direct Testimony of Company witness Mr. Frank L. Frederickson. Minnesota Power's 13 frequency distribution is then applied to the test year budget to determine the number of 14 customers and billing units on particular rates within each revenue class, which, in turn, 15 determines budget revenue by rate schedule and is then input into the CCOSS. The 16 revenue by rate schedule is then totaled to provide revenue by customer class. Direct 17 Schedules E-1 and E-2 in Volume 3 demonstrate this process. Direct Schedule E-2 18 contains detailed inputs and overview pages outlining the steps in the process of 19 converting the test year budget numbers into budgeted revenue by customer class.
- 20

21 Q. Please explain how the CCOSS is used to develop general rates?

A. The results of the CCOSS are shown in Volume 3, Direct Schedule E-3. The
development of the Company's fully allocated CCOSS and the results of that study are
described in more detail in the Direct Testimonies of Company witnesses Mr. Stewart
J. Shimmin and Ms. Amanda L. Turner. The revenue requirements from the CCOSS
and the associated customer class billing units in Volume 3, Direct Schedule E-1 were
used to determine unit costs for customer, energy, and demand components. These costs

¹ In the Matter of Minn. Power's 2023 Annual Elec. Util. Forecast Report, Docket No. E999/PR-23-11, MINN. POWER'S 2023 ANNUAL ELEC. UTIL. FORECAST REPORT (June 30, 2023).

1		were used as a guide in developing the proposed general rate components, including
2		service charge, demand charges, and energy charges as applicable.
3		
4	Q.	What is Minnesota Power's 2024 test year revenue deficiency for final General
5		Rates determined from the CCOSS?
6	A.	Volume 3, Direct Schedule E-3 Parts 1 and 2 summarize Minnesota Power's proposed
7		General Rate revenue deficiency for the test year. The Company's 2024 test year
8		revenue deficiency is \$127,852,686 (MN Jurisdictional).
9		
10	Q.	Is the revenue deficiency the result of only new cost drivers?
11	A.	No. The Company moved costs from the Transmission Cost Recovery ("TCR") Rider
12		and the Renewable Resources Rider ("RRR") into base rates in the proposed 2024 test
13		year. Additional information regarding this transfer of costs is described in the Direct
14		Testimony of Company witness Mr. Shimmin.
15		
16	Q.	What would Minnesota Power's 2024 test year revenue deficiency for final General
17		Rates be if only new drivers were included in the CCOSS?
18	А.	If the costs remained in the current cost recovery riders and were not moved into the
19		proposed General Rates, the Company's 2024 test year revenue deficiency would be
20		\$89.1 million (MN Jurisdictional) or an overall 12 percent increase.
21		
22	Q.	Please describe the CCOSS results by customer class.
23	А.	The Proposed Test Year 2024 CCOSS results indicate a required increase to be at cost
24		across customer classes that varies from 8.20 percent to 42.25 percent to collect the full
25		cost of service that enables the Company to maintain a healthy and reliable utility. The
26		results are shown in Volume 3, Direct Schedule E-3, Part 1. Table 1 summarizes those
27		results by customer class.
28		

Customer Class	(%) Requested Revenue Change to be at Cost
Residential	42.25%
General Service	25.38%
Large Light & Power	12.44%
Large Power	8.20%
Lighting	12.25%

Table 1. Class Cost of Service Study Results to be at Cost

3

B. <u>Revenue Apportionment</u>

4 Q. Please explain the next step in Minnesota Power's rate design process.

5 After establishing the total revenue requirements in the CCOSS, Minnesota Power A. 6 created the revenue apportionment. The revenue apportionment determines the 7 necessary adjustments to be made to each customer class's present revenues to recover 8 the Company's total revenue deficiency. The purpose of this step in the rate design 9 process is to consider multiple objectives and rate design principles to determine each 10 customer class's responsibility when recovering the overall revenue deficiency. This 11 part of the rate design process is completed after the retail revenue requirement has been 12 determined and therefore does not change the overall revenue requirement.

13 14

Q. Please describe Minnesota Power's revenue apportionment process in more detail.

15 The Company started with the total revenue deficiency, determined in the CCOSS, of A. 16 \$127,852,686. Then, the Company reviewed the CCOSS results by customer class, 17 along with multiple other considerations, and determined that an equal percentage 18 increase of 17.17 percent to each customer class's present revenues, including Dual 19 Fuel, would most equitably balance the competing objectives in apportioning the 20 revenue deficiency. This increase was added to present rate revenues to determine the 21 proposed rate revenue requirements for each of those classes. Finally, the Demand 22 Response ("DR") and Contract Revenue proposed rate revenues, retrieved from the 23 CCOSS, was entered as a separate line item, and added to the total proposed rate 24 revenues. The DR and Contract Revenue quantities and billing revenues or credits are 25 generally from programs that are interruptible and determined in Commission approved

Electric Service Agreements ("ESA"), or annual letter agreements, which are outside of customer class rates. They typically provide a system benefit to all customers; thus, those revenues are treated as a credit to the total retail revenue requirement. In other words, the apportioned revenue requirements from each customer class sum to the Total Sales of Electricity, including Dual Fuel, and the addition of the DR and Contract Revenues proposed revenue requirements, will equate to the Total revenue requirement found to be necessary for a healthy and reliable utility.

8

9 Q. Please explain Minnesota Power's revenue apportionment results for the customer 10 classes.

11 A. Minnesota Power ideally would attempt to follow the CCOSS results to align rates with 12 the cost to serve each customer class as provided by the CCOSS. However, as shown in 13 Table 1 above, strict adherence to the CCOSS would require a 42.25 percent increase 14 for the Residential customer class. An increase of this magnitude would be difficult for 15 the Residential customer class to tolerate all at once. With this in mind, the Company 16 considered the impacts of the overall MN Jurisdictional rate increase indicated by the 17 CCOSS and determined that an equal percentage increase of 17.17 percent across all 18 customer classes was a more reasonable rate design proposal at this time.

- 19
- 20

C. <u>Other Considerations in Rate Design</u>

Q. What rate design principles did Minnesota Power consider when developing the proposed class revenue apportionment and rate design?

A. Below are some of the influential rate design principles that Minnesota Power
 considered in designing its proposed rates for this case. These rate design principles are:

Rates must be just and reasonable. The Commission's obligation to determine
 whether rates are just and reasonable is "broadly defined in terms of balancing
 the interests of the utility companies, their shareholders, and their customers."²

² In the Matter of the Request of Interstate Power Company for Authority to Change its Rates for Gas Service in Minnesota, 574 N.W.2d 408, 410 (Minn. 1998) (citing Minn. Stat. § 216B, subd. 6).

- Rates should promote the efficient use of resources by sending appropriate price
 signals to customers, reflecting the costs of serving them and encouraging
 conservation.
 - Rate changes should be gradual to limit rate shock to customers.
 - Rates should be understandable and easy to administer.
 - Rates should be designed to allow the Company a reasonable opportunity to recover its revenue requirement, including the cost of capital.
- 8

5

6 7

9 Q. What other factors did Minnesota Power consider when designing its rates?

10 A. The Company considered other factors—such as existing rate design and overall 11 customer billing impacts—in determining the proposed rate changes. Additionally, the 12 Company was cognizant of state energy policies related to clean-energy and reliability, 13 and how the Company's proposed rate design considers these goals while striving to 14 offer reasonable rates for each customer class.

15

16 Furthermore, Minnesota Power serves some of the nation's largest industrial customers 17 who are globally competitive and constitute a significant portion of both Minnesota 18 Power's energy sales and the regional economy. Minnesota Power must also balance 19 the energy needs and economic concerns of its other industrial, commercial, and 20 residential customers, including low-income residential customers. Finally, the 21 increasing frequency of extreme weather events requires the electric power grid to be 22 increasingly resilient to continue reliable delivery of electricity. The Company believes 23 considering all these factors, as well as rate design programs, such as DR, are critical 24 for energy transformation.

- 25
- 26

III. PROPOSED RATE DESIGN AND RETAIL RATES

27 Q. What is the purpose of this section of your testimony?

A. The purpose of this section of my testimony is to outline the Company's proposed rate
design and rates by customer class. Components of the proposed rates include service
charges, demand charges, and energy charges as applicable.

- 1 2
- A. <u>Minnesota Power's Proposed Rate Design Overview</u>

3 Q. Please summarize Minnesota Power's proposed rate increases by class.

- A. MP Exhibit ____ (Peterson), Direct Schedule 1 sets forth the Company's proposed rate
 increase apportionment to customer classes for interim and final rates. This information
 is summarized in Table 2 below.
- 7

8

Table 2. Proposed Rate Increase Allocation to Customer Classes

Customer Class	General Rate Class Cost-of- Service Study	Pr li In	oposed nterim Rate crease (2024)		Additional Proposed Final Rate Change (mid-2025)		TOTAL Proposed General Rate Increase
Residential	42 25%	1	3 82%	+	3 35%	=	17 17%
	42.23%		0.02/0		0.05%	-	17.1770
General Service	25.38%	1	3.82%	+	3.35%	=	17.17%
Large Light & Power	12.44%	1	3.82%	+	3.35%	=	17.17%
Large Power	8.20%	1	3.82%	+	3.35%	=	17.17%
Lighting	12.25%	1	3.82%	+	3.35%	=	17.17%

9

Q. Would there be an impact to the overall proposed general rate increase if Minnesota Power were not proposing to move cost recovery rider costs into proposed final rates?

A. Yes, there would be an impact to the proposed general rate increase, but there would
not be an impact to customer bills overall. As described by Company witness Mr.
Shimmin and noted above, some cost recovery rider costs were moved into general
rates. These costs are currently billed to customers in the TCR Rider and RRR. While
moving these items to base rates increases the proposed base rates, the riders are
similarly reduced to reflect the transfer of costs. If only new drivers were considered,
the proposed interim rate increase in 2024 would have been 8.6 percent instead of 13.82

percent, and the proposed general rate increase would have been 12 percent instead of 17.17 percent per customer class.

3

4

Q. Are the proposed rate increases just and reasonable?

5 Yes. First, these rates reflect the overall cost of providing electric service to customers A. 6 that is over 99 percent reliable. Furthermore, there is a rapid rate of change in the energy 7 industry, partially driven by state energy policy, that costs money to implement and 8 needs to be reflected in customer rates. The proposed rates accurately reflect cost factors 9 to serve Minnesota Power's customers as the Company transitions its generation 10 portfolio to incorporate more renewable energy and demand response. Renewable 11 generation now accounts for over 50 percent of Minnesota Power's portfolio through 12 the Company's EnergyForward initiatives, which is ahead of all other Minnesota 13 utilities, and in line to meet the Minnesota's 100 percent by 2040 clean electricity 14 standard. In addition, Minnesota Power's overall residential rates per kilowatt-hour 15 ("kWh") are below the national and state averages, along with having average 16 residential customer bills that are lower than those of neighboring utilities. Finally, the 17 Company provides multiple programs to assist low-income customers, including a 18 usage-qualified discount to eligible customers.

19

20Q.Please provide more information about how Minnesota Power's rates for the21residential and industrial classes compare to those of other investor-owned utilities22("IOU") in the Midcontinent Independent System Operator, Inc. ("MISO")23market.

A. The data and figures used below were obtained from the U.S. Energy Information
Administration ("EIA"), 2022 annual electric power industry report, Form EIA-861
detailed data files. Figure 1 shows that Minnesota Power's average industrial rate is
somewhat higher than the MISO median, and lower than Xcel Energy but higher than
Otter Tail Power Company.

29

Figure 1. IOUs in MISO – Average Industrial Rates





Figure 2 shows that Minnesota Power's residential customers pay 13.83¢ per kWh on average, which is lower than Xcel Energy's average of 15.60¢ per kWh and higher than Otter Tail Power Company's average rate of 11.64¢ per kWh.

1Q.Please provide more information about how Minnesota Power's overall residential2bills compare to those of neighboring electric utilities and IOUs.

A. The Company continues to strive to maintain affordable and reasonable bills for our
residential customers. As shown in Figure 3, Minnesota Power's average monthly
residential bill is lower than neighboring utilities and other IOUs in Minnesota. The data
used below were obtained from the EIA 2022 annual electric power industry report,
Form EIA-861 detailed data files.

Figure 3. Average Monthly Residential Bill



Monthly Bill - Average

10

8

9

11

12 B. <u>Residential</u>

13

1. Residential Rate Structure

14 Q. How are Minnesota Power's existing Residential rates structured?

A. On October 1, 2022, the second phase of the Company's transitional flat rate structure
went into effect for residential customers. During this phase, customers that meet
income-based and usage-based eligibility requirements qualified to receive a discount
on their electric rates as part of the residential rate design transition. Qualified lowincome customers with an average monthly usage eligibility threshold of 1,000 kWh or

less, based on 12 months of historical energy usage, receive the discount. The discount applies to the customer's first 600 kWh of energy usage.³

- The Company also implemented phase one of its new residential time-of-day ("TOD") 4 5 rate on October 1, 2022. The TOD rate's first phase was designed such that operational 6 metrics could be evaluated such as the ease of moving on and off the TOD rate, billing 7 efficiencies or challenges, efficacy of validation, estimation and editing processes 8 through the meter data management solution, along with gathering customer feedback.⁴ 9 Phase two is expected to be implemented in 2024 after further evaluations have been 10 completed. The details of the residential rate design transition from an inverted block 11 rate to the flat rate, and then to the TOD rate, are included in the Commission's August 12 27, 2021 Order.⁵ Additionally, details regarding the status of the Company's transition 13 to TOD rates can be found in the Company's ongoing compliance filings in Docket No. 14 E015/M-20-850.
- 15

1

2

3

Q. How does the Company manage the impacts of any rate increase on low-income customers?

A. Minnesota Power has offered a monthly billing discount for income-qualified
residential customers since 2011 through the Customer Affordability of Residential
Electricity ("CARE") program and is the only electric utility in the state that offers an
affordability program with a self-declare process for income eligibility. The Company
also works diligently to identify and assist low-income customers and continues to
ensure appropriate programs are in place to help these customers with their electric bills.
Currently, additional low-income programs include energy efficiency, flexible payment

³ In the Matter of the Petition for Approval of Minnesota Power's Residential Rate Design, Docket No. E015/M-20-850, MINNESOTA POWER'S THIRD SIX-MONTH COMPLIANCE FILING ON STATUS OF TRANSITION TO FLAT RATE AND DEFAULT TIME-OF-DAY RATES at 1–4, 8–9 (Sept. 1, 2023).

⁴ *Id.* at 5–6, 10–12.

⁵ In the Matter of the Petition for Approval of Minn. Power's Residential Rate Design, Docket No. E015/M-12-233, ORDER APPROVING TRANSITION FROM INVERTED BLOCK RATE TO TIME-OF-DAY RATES (Aug. 27, 2021); In the Matter of Minn. Power's Compliance Report for its Temp. Rider for Residential Time-of-Day Rate for Participants of the Smart Grid Advance Metering Infrastructure Pilot Project, E015/M-20-850, ORDER APPROVING TRANSITION FROM INVERTED BLOCK RATE TO TIME-OF-DAY RATES (Aug. 27, 2021).

options, a usage-qualified low-income discount built into the residential rate and/or energy assistance and a low-income Solar Grant program. These programs are described further in the Direct Testimony of Company witness Ms. Jennifer J. Cady. These programs and services are one form of income-eligible customer outreach and often provide cross-program referrals.

- 6
- 7 8

Q. Is Minnesota Power proposing any additional changes to the Company's Residential Service tariff?

9 A. Yes. The Company is proposing clarifying language to the eligibility requirements to
10 be qualified for the energy discount within the Adjustment section of the Residential
11 Service tariff. The revised language is shown in redlined and clean format in Volume 3,
12 Direct Schedules J-3 and J-2, respectively, Minnesota Power Electric Rate Book,
13 Section V, Page No. 1, Residential Service.

14

15

2. <u>Residential Rates</u>

16 Q. What is the recommended rate increase for the Residential class?

17 A. As a matter of ratemaking policy, the Company determined that an increased adjustment 18 of 41.25 percent to Residential rates, although justified on a cost basis according to the 19 CCOSS, would not be reasonable, as it would be a striking increase compared to existing 20 rates. As noted earlier, rate design principles encourage gradual rate increases to provide 21 rate stability to customers. Therefore, the Company instead proposes an increase of 22 17.17 percent for the Residential class for final rates. Specifically, Minnesota Power is 23 requesting an approximate 13.82 percent Residential rate increase during the interim 24 period (expected to continue at least through the entire 2024 test year), and the final 25 requested increase would result in an incremental 3.35 percent increase for Residential 26 customers beginning with final rate implementation expected sometime in 2025. Note 27 that these increases are solely to base rates. Reductions in the Company's TCR Rider 28 and RRR will partially offset this increase in base rates, resulting in an effective 29 Residential rate increase during the interim period of 8.5 percent and an effective 30 Residential rate increase for final rates of 11.8 percent.

2

3

Q. What is the Company's proposed energy rate and discount for income and usagebased eligible customers in this proceeding?

- A. Minnesota Power proposes to increase the Energy Charge for Residential customers
 from 9.403¢ per kWh to 11.628¢ per kWh. The Company is proposing the discount for
 eligible customers to increase from 3.761¢ per kWh to 4.658¢ per kWh, which is a 40
 percent discount from the proposed Energy Charge of 11.628¢ per kWh. The discount
 is calculated as a percentage of the Energy Charge.
- 9

10

- Q. Please explain how the proposed increase to the Residential energy rate impacts
 the Energy Charge Adjustments within the Rider for Residential TOD Service?
- A. Customers taking service under the Rider for Residential TOD Service are billed at the
 Residential Energy Charge rate, plus the Energy Charge Adjustment for on-peak, off peak, and super off-peak time periods. Hence, with the proposed increase to the
 Residential Energy Charge, the Energy Charge Adjustments also needed to be updated
 to maintain the approved two to one on-peak to super off-peak ratio.⁶
- 17

18 Q. What Energy Charge Adjustments are being proposed for the Rider for 19 Residential TOD Service?

- A. Minnesota Power proposes to increase the on-peak Energy Charge Adjustment from
 3.667¢ per kWh to 4.800¢ per kWh; off-peak from -0.239¢ per kWh to -0.293¢ per
 kWh; and super off-peak from -2.677¢ per kWh to -3.416¢ per kWh.
- 23

Q. Why is the Company's proposed rate increase appropriate for the Residentialclass?

A. Historically, Minnesota Power's Residential customers have paid far less than the full
 cost of the generation, transmission, and distribution system facilities required to serve
 them, and the proposed rate adjustment is again substantially lower than the amount

⁶ See In the Matter of the Petition for Approval of Changes to Minnesota Power's Residential Rate Design, Docket No. 20-850.

1		indicated in the CCOSS to recover these costs. While rate increases are rarely welcomed
2		by any class of customers, Minnesota Power believes the proposed increase is
3		reasonable based upon the rising costs of providing reliable electric service with state
4		leading renewable energy, including the systems and technology needed to support
5		policy objectives. Finally, the Company continues to offer assistance through energy
6		efficiency programs and low-income programs, as well as a TOD rate structure that
7		provides customers with more control over their bill. Together, these programs support
8		the Company's efforts to maintain affordable and reasonable bills for our residential
9		customers, as shown in Figure 3.
10		
11		3. <u>Seasonal Residential</u>
12	Q.	What Energy Charge is being proposed for the Seasonal Residential Service?
13	А.	Minnesota Power proposes to increase the Energy Charge for Seasonal Residential
14		customers from 9.624¢ per kWh to 12.276¢ per kWh.
15		
16		4. <u>Residential Dual Fuel</u>
17	Q.	What Energy Charge is being proposed for Residential Dual Fuel Interruptible
18		Service?
19	А.	The Company proposes the Energy Charge for the standard Dual Fuel, for Small and
20		Large Service, to be set at 8.656¢ per kWh, up from 6.916¢ per kWh. For Dual Fuel
21		Plus, the Energy Charge is proposed to be set at 6.039¢ per kWh, up from 4.703¢ per
22		kWh, for Small and Large Service customers.
23		
24		5. <u>Residential Fixed Off-Peak Service</u>
25	Q.	What Energy Charge is being proposed for the Residential Fixed Off-Peak rates?
26	А.	Minnesota Power proposes that the Energy Charge for Residential Fixed Off-Peak
27		Service, for Small and Large Service, increase from 4.703¢ per kWh to 6.039¢ per kWh.
28		

6. **Residential Electric Vehicle**

2 Q. Is the Company proposing any changes to the existing Residential Electric Vehicle 3 ("EV") tariff?

4 Yes. Currently, eligible customers include residential customers who use the tariff for A. 5 the sole purpose of recharging EVs. The Company is proposing to add the option for 6 residential customers that recharge battery powered equipment to be used under this 7 rate. Additionally, the Company is proposing to remove the Renewable Energy Option 8 section. The Renewable Energy Option is based on a renewable energy program that 9 Minnesota Power no longer offers to customers. Residential EV customers are eligible 10 to participate in the Rider for Voluntary Renewable Energy. The revised language is shown in redlined and clean format in Volume 3, Direct Schedules J-3 and J-2, 12 respectively, Minnesota Power Electric Rate Book, Section V, Page No. 8, Residential 13 Electric Vehicle Service.

14

11

15

Q. What rates are being proposed by the Company for Residential EVs?

16 The Company is proposing an increase in the Energy Charge for on-peak hours from A. 17 11.233¢ per kWh to 12.210¢ per kWh, and from 3.145¢ per kWh to 3.781¢ per kWh for 18 the off-peak hours. The on-peak and off-peak Energy Charges were calculated to 19 encourage customers to charge their vehicles during off-peak hours. In addition, the 20 Company is proposing to increase the Service Charge of \$4.25 to \$6.00.

21

23

22

C.

General Service

1. General Service Rate Structure

24 Please describe how the General Service Demand Charge is currently structured? Q.

25 For General Service, some customers have a demand meter and pay a Demand Charge, A. 26 whereas other General Service customers (typically with lower usage) do not have a 27 demand meter. For the demand customers, the demand cost structure is composed of 28 three components-generation, distribution, and transmission-intended, from a rate 29 design standpoint, to recover the majority of fixed costs in place to serve customers.

1		Currently, Minnesota Power recovers a portion of the fixed costs through the demand
2		charge and the remaining fixed costs through the energy charge.
3		
4	Q.	What change is the Company requesting regarding General Service Demand
5		Charges?
6	А.	For General Service demand customers, the Company is proposing to separate out the
7		current Demand Charges into two charges: 1) "Demand Charge" consisting of the
8		generation and distribution components; and 2) "Transmission Demand Charge"
9		consisting of the transmission components. This change provides more rate
10		transparency and increased visibility into the different cost components.
11		
12	Q.	Does Minnesota Power have a Transmission Demand structure with other rate
13		classes?
14	A.	Yes. In the 2021 Rate Case, the Commission approved a Transmission Demand charge
15		for LL&P and LP customers. In this rate case, the Company is proposing to implement
16		the Transmission Demand charge to the General Service demand customers.
17		
18	Q.	Why is Minnesota Power proposing to implement this new Transmission Demand
19		Charge for General Service customers?
20	A.	Separating the current demand charges into their different components, while not
21		changing revenue requirements in this rate case, will give the customers more
22		transparency regarding the drivers of the Company's system costs. This increased level
23		of transparency will help connect customers more closely with the cost drivers. It will
24		also provide an overall cost-effective alignment of generation and load as the electric
25		grid and power markets continue to evolve with increased quantities of renewable
26		energy delivered across the region. For General Service demand customers, the
27		distribution component of the demand charge is the largest component, but separating
28		out transmission costs will allow alignment of cost components and help identify the
29		trends that are driving changes in costs for the various components.
30		

1	Q.	How will the Transmission Demand Charge be implemented and calculated for
2		General Service demand customers?
3	А.	This is accomplished by including a "Transmission Demand Charge" line item under
4		the breakout of demand charges on customers' bills. The Transmission Demand Charge
5		will be calculated based on the customer's billed demand kilowatts ("kW") for the
6		month.
7		
8	Q.	Does the overall General Service billed demand amount change?
9	A.	A portion of the existing demand costs that are currently recovered in the General
10		Service Energy Charge will be reassigned to demand charges. This will result in more
11		demand costs being recovered through the demand charges.
12		
13	Q.	Is Minnesota Power proposing any additional changes to the Company's General
14		Service tariff?
15	А.	Yes. The Company is proposing clarifying language to the Determination of Billing
16		Demand section of the General Service tariff. The revised language is shown in redlined
17		and clean format in Volume 3, Direct Schedules J-3 and J-2, Minnesota Power Electric
18		Rate Book, Section V, Page No. 10, General Service.
19		
20	Q.	Please describe the clarifying language.
21	А.	The clarifying language is being added to better describe when a General Service
22		customer is on the non-demand rate versus the demand rate. Customers whose monthly
23		demand has been less than 10 kW during the past 12-month period, and whose monthly
24		consumption has not exceeded 2,500 kWh in three or more consecutive months during
25		the same 12-month period, will be identified and the customer's billing history will be
26		reviewed. After this billing history review, where appropriate, a switch to the non-
27		demand General Service rate will be made. All customers exceeding the demand
28		threshold criteria will be moved to the General Service demand rate.
29		

1		2. <u>General Service Rates</u>
2	Q.	What revisions does Minnesota Power propose for the General Service rates?
3	А.	Minnesota Power proposes to change the Energy Charge from 9.332¢ per kWh to
4		10.252¢ per kWh for customers without demand meters and from 6.507¢ per kWh to
5		7.181¢ per kWh for customers with demand meters; the Demand Charge from \$8.00 to
6		7.50 per kW per month; with the addition of Transmission Demand of 4.40 per kW
7		per month.
8		
9		3. <u>Commercial/Industrial Dual Fuel</u>
10	Q.	What rates are being proposed by the Company for Commercial/Industrial Dual
11		Fuel Interruptible Service?
12	А.	The Company proposes that the Energy Charge for the standard Dual Fuel Small Service
13		and Large Service – Low Voltage customers be set at 8.656 ¢ per kWh, up from 6.916 ¢
14		per kWh; and Large Service – High Voltage be set at 8.503ϕ per kWh, up from 6.770ϕ
15		per kWh. For Dual Fuel Plus, the Energy Charge is proposed to be set at 6.039¢ per
16		kWh, up from 4.703ϕ per kWh, for Small Service and Large Service – Low Voltage
17		customers; and 5.840¢ per kWh, up from 4.601¢ per kWh, for Large Service – High
18		Voltage customers.
19		
20	Q.	Is the Company proposing any changes to the Commercial/Industrial Dual Fuel
21		Interruptible Service tariff?
22	A.	Yes. The Company proposes to add an Energy Charge of 10.252¢ per kWh for
23		Commercial/Industrial customers who have a qualified Air Source Heat Pump, as
24		approved by the Company, and who elect to be exempt from the Dual Fuel interruptions
25		from June through September. This will encourage enrollment in our Dual Fuel demand
26		response program by providing another alternative to customers that may better fit their
27		needs.
28		

1		4. <u>Commercial/Industrial Fixed Off-Peak</u>
2	Q.	What rates are being proposed by the Company for Commercial/Industrial Fixed
3		Off-Peak Service rate?
4	A.	Minnesota Power proposes that the Energy Charge for Small Service - Low Voltage and
5		Large Service – Low Voltage to be increased from 4.703¢ to 6.039¢ per kWh; and for
6		Large Service - High Voltage customers, from 4.710¢ to 5.840¢ per kWh.
7		
8		5. <u>Commercial EV Charging Service</u>
9	Q.	Is Minnesota Power proposing any changes to the Pilot for Commercial EV
10		Charging Service tariff?
11	A.	Yes. The Company is proposing to revise the existing Pilot for Commercial EV
12		Charging Service and separate it into two tariffs. The Company is also proposing to
13		update the commercial EV charging service rates in each respective tariff.
14		
15	Q.	Please describe the existing Pilot for Commercial EV Charging Service?
16	A.	Minnesota Power's current Pilot for Commercial EV Charging Service tariff is a
17		commercial EV tariff that was developed to encourage and support EV charging in fleet
18		and public charging applications. The tariff was proposed as a three-year pilot on May
19		16, 2019 ⁷ in response to the Commission's Order ⁸ directing Minnesota utilities to file
20		proposals to enhance the availability of or access to charging infrastructure, increase
21		consumer awareness of EV benefits, and/or facilitate managed charging or other
22		mechanisms that optimize the incorporation of EVs into the electric system. The
23		Company's proposal was approved in the Commission's December 12, 2019, Order. ⁹

⁷ In the Matter of Minnesota Power's Petition for Approval of its Electric Vehicle Commercial Charging Rate Pilot, Docket No. E015/M-19-337 (May 16, 2019).

⁸ In the Matter of a Commission Inquiry into Electric Vehicle Charging and Infrastructure, Docket No. E015/M-17-879, ORDER MAKING FINDINGS AND REQUIRING FILINGS (Feb. 1, 2019).

⁹ In the Matter of Minnesota Power's Petition for Approval of its Electric Vehicle Commercial Charging Rate Pilot, Docket No. E015/M-19-337, ORDER APPROVING PILOT WITH MODIFICATIONS, SETTING REPORTING REQUIREMENTS (Dec. 12, 2019).

1		On September 12, 2022, the Commission approved the Company's request to extend
2		the pilot until a new permanent offering is approved. ¹⁰
3		
4	Q.	Please describe the compliance requirement for the Pilot Commercial EV
5		Charging Service.
6	A.	Order Point 2 from the Commission's September 12, 2022, Order approving the
7		Company's request to extend its Commercial EV Rate Pilot requires the Company to
8		submit a proposal to convert the Pilot to a permanent rate offering by January 31, 2024. ¹¹
9		The proposed changes to this tariff are explained in more detail below and are intended
10		to satisfy the requirement issued in Order Point 2.
11		
12	Q.	What revisions does Minnesota Power propose for the Pilot for Commercial EV
13		Charging Service?
14	A.	Minnesota Power is proposing to revise the existing Pilot for Commercial EV Charging
15		Service tariff to the Commercial EV Public Charging Service tariff that will be an EV
16		charging rate for commercial customers providing public charging. The revised tariff is
17		shown in redlined and clean format in Volume 3, Direct Schedules J-3 and J-2,
18		respectively, Minnesota Power Electric Rate Book, Section V, Page No. 11,
19		Commercial Electric Vehicle Public Charging Service. The Company is also proposing
20		to add a new tariff specific for their fleet EV customers. The changes are shown in
21		redlined and clean format in Volume 3, Direct Schedules J-3 and J-2, respectively,
22		Minnesota Power Electric Rate Book, Section V, Page No. NEW-1, Commercial
23		Electric Vehicle Fleet Charging Service.

Q. How is the existing Pilot for Commercial EV Charging Service currently structured?

A. The current Pilot for Commercial EV Charging Service tariff is a commercial EV rate,
used by electric fleet and public charging station customers, which was designed to

¹⁰ In the Matter of Minnesota Power's Petition for Approval of its Electric Vehicle Commercial Charging Rate Pilot, Docket No. E015/M-19-337, ORDER (Sept. 12, 2022).

¹¹ *Id.* at Order Point 2.

address the impact of demand charges on customers with EV charging load. The rate
 follows the General Service Demand rate structure with two additional components. The
 commercial EV rate only applies demand charges during an on-peak period, defined as
 weekdays from 3:00 pm to 8:00 pm, as well as a 30 percent demand cap that limits
 demand charges to a maximum of 30 percent of the customer's total pre-tax bill.

- 6
- 7 8

Q. What is Minnesota Power proposing for the new Fleet Commercial EV Charging Service?

9 A. Minnesota Power is proposing to eliminate the existing demand cap for the proposed
10 Fleet Commercial EV Charging Service but to continue to only apply demand charges
11 during on-peak hours. The Company is also proposing to add a Transmission Demand
12 Charge that will align with the General Service proposal. Typically, the EV Charging
13 Service rates have aligned with General Service rates, and the Company continued this
14 structure through their proposal.

15

Q. Why is Minnesota Power proposing to remove the demand cap component for the proposed Fleet Commercial EV Charging Service?

A. EV Fleet customers typically have greater flexibility to choose which hours that they
 charge EVs. By limiting the demand charge to on-peak hours, the rate encourages EV
 fleet owners to charge during off-peak periods, which reduces the impact of commercial
 EV charging load on the MISO and Minnesota Power systems. This time-of-use demand
 structure also provides EV Fleet customers greater control of their demand and general
 operational costs.

24

Q. What rates are being proposed by Minnesota Power for the Fleet Commercial EV Charging Service?

A. Minnesota Power proposes to change the Fleet Commercial EV Charging Service
Energy Charge from 6.507¢ per kWh to 7.181¢ per kWh and decrease the on-peak
Demand Charge from \$8.00 to \$7.50 per kW per month. In addition, the Company is
proposing to add the Transmission Demand Charge of \$4.40 per kW per month.

Q. What revisions is Minnesota Power proposing for Public Charging Commercial **EV Charging Service?**

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Minnesota Power is proposing to eliminate the existing on-peak demand component for A. the proposed Public Charging Commercial EV Charging Service, but to continue the demand cap component. The Company is also proposing to add a Transmission Demand Charge that will align with the General Service proposal. Typically, the EV Charging Service rates have aligned with General Service rates, and the Company continued this structure through its proposal.

10

11 Q. Why is Minnesota Power proposing to eliminate the on-peak only demand 12 component but continue the demand cap for the proposed Public Charging 13 **Commercial EV Charging Service?**

- 14 Minnesota Power is proposing to eliminate the on-peak demand component for the A. 15 proposed Public Charging Commercial EV Charging Service because public charging 16 stations typically cannot adjust EV charging to off-peak hours due to limited control 17 over when the chargers are being used by the public. In addition, this rate is designed to 18 encourage third-party investment in public charging stations by reducing the risk of high 19 demand charges they cannot control. Therefore, the demand cap is appropriate for public 20 charging stations considering charging station utilization with current EV penetration at 21 this time.
- 22

23 Q. What rates are being proposed by Minnesota Power for the Public Charging 24 **Commercial EV Charging Service?**

25 Minnesota Power proposes to change the Public Charging Commercial EV Charging A. 26 Service Energy Charge from 6.507¢ per kWh to 7.181¢ per kWh and decrease the on-27 peak Demand Charge from \$8.00 to \$7.50 per kW per month. In addition, the Company 28 is proposing to add the Transmission Demand of \$4.40 per kW per month.

29

D. Large Light and Power

2 Q. What rates is Minnesota Power proposing for LL&P Service?

A. Minnesota Power is proposing to change both the Energy Charge and Demand Charges
for LL&P Service. The Demand Charge for the first 100 kW of billing demand is
proposed to increase from \$1,050 to \$1,150 per month. The Demand Charge for all
additional billing demand is proposed to increase from \$9.50 per kW-month to \$10.00
per kW-month, and the Transmission Demand to increase from \$4.00 to \$6.63 per kWmonth. The Energy Charge is proposed to increase from 4.574¢ per kWh to 5.458¢ per
kWh.

10

11 Q. What rates is Minnesota Power proposing for LL&P Rider for Schools?

A. Minnesota Power is proposing to change both the Energy Charge and Demand Charges
for LL&P Service. The first 50 kW of Billing Demand is proposed to increase from
\$525 to \$575 per month. The Billing Demand Charge between 51 kW and 100 kW will
increase from \$10.50 to \$11.50 and all additional billing demand will increase from
\$9.50 per kW-month to \$10.00 per kW-month. The Company proposes the
Transmission Demand to increase from \$4.00 to \$6.63 per kW-month and the Energy
Charge to increase from 4.574¢ per kWh to 5.458¢ per kWh.

19

20

Q. What changes does Minnesota Power propose for the LL&P TOU Rider rates?

A. Minnesota Power is proposing to change both the Energy Charge and Demand Charges
for LL&P TOU Rider. The Company is proposing to increase the on-peak Energy
Charge from 6.399¢ per kWh to 7.445¢ per kWh, the off-peak Energy Charge from
4.267¢ per kWh to 4.965¢ per kWh, and the super off-peak Energy Charge from 3.201¢
per kWh to 3.723¢ per kWh. This results in a ratio of the on-peak to off-peak rates of
about 1.5:1, which is consistent with the existing on-peak to off-peak energy ratio from
the approved TOU rates in the Residential Rate Design docket.¹² Similar to standard

¹² In the Matter of Minn. Power's Petition for Approval of a Temp. Rider for Residential Time-of-Day Rate for Participants of the Smart Grid Advanced Metering Infrastructure Pilot Project, Docket No. E015/M-12-233, PETITION FOR APPROVAL (Mar. 20, 2021); In the Matter of the Petition for Approval of Changes to Minn. Power's Residential Rate Design, Docket No. E015/M-20-850, PETITION FOR APPROVAL (Dec. 1, 2020).

1 LL&P service, the monthly demand charge for the first 100 kW or less in the LL&P 2 TOU Rider would increase from \$1,050 to \$1,150 per month. Minnesota Power 3 proposes to change the on-peak demand rate from \$10.00 per kW to \$10.50 per kW, the off-peak demand rate from \$4.50 per kW to \$5.00 per kW, and the Transmission 4 5 Demand Charge from \$4.00 to \$6.63 per kW. 6 7 E. Lighting 8 What changes does Minnesota Power propose for its Lighting rates? **Q**. 9 Minnesota Power's proposed changes to its Lighting rates are to reflect the fact that all A. 10 lighting has been converted to LED. These changes are shown in the redlined tariff 11 pages for proposed General Rates in Volume 3: the Outdoor and Area Lighting Service 12 (Volume 3, Direct Schedule J-3, Minnesota Power Electric Rate Book, Section V, Page 13 No. 37) and Street and Highway Lighting Service (Volume 3, Direct Schedule J-3, 14 Minnesota Power Electric Rate Book, Section V, Page No. 46). 15 16 **Q**. How were the proposed changes to individual Lighting rates developed? 17 A. The Lighting rate changes were developed using a separate analysis that incorporates 18 the cost of purchasing, installing, and maintaining lighting equipment along with the 19 cost of providing electricity. This analysis is included in Volume 4, Workpapers, RD-1. 20 For the Lighting class, Minnesota Power proposes an overall revenue increase of 17.17 21 percent. 22 23 Q. What are the specific proposed changes for Outdoor and Area Lighting Service? 24 Under Outdoor and Area Lighting Service schedules, all fixture choices other than LED A. 25 will be eliminated. In addition, Option 2, where the Company owns and the customer 26 maintains the equipment, will be eliminated entirely because Minnesota Power no 27 longer has customers on this option. Also, the Energy Charge for Option 4, where the 28 customer owns and maintains the equipment, is proposed to change from 6.583¢ per 29 kWh to 14.274¢ per kWh. In addition, Minnesota Power proposes to increase the fixed

monthly Service Charge from \$3.67 to \$5.00 for Option 4. The monthly Service Charge covers the cost of the meter and customer service.

23

4

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Q. What are the specific proposed changes for Street and Highway Lighting Service?

5 Under the Street and Highway Lighting service schedules, all fixture choices other than A. 6 LED will be eliminated, except for Option 3. In addition, Option 2 will be eliminated 7 entirely because Minnesota Power no longer has customers on this option. Also, the 8 Energy Charge for Option 4, where the customer owns and maintains the equipment, is 9 proposed to increase from 6.583¢ per kWh to 14.274¢ per kWh. In addition, Minnesota 10 Power proposes to increase the fixed monthly Service Charge from \$3.67 to \$5.00 for 11 Option 4. The monthly Service Charge covers the cost of the meter and customer 12 service.

13

14

15

F. <u>Large Power</u>

1.

LP Rates

16 Q. What changes does Minnesota Power propose for the standard LP Service 17 Schedule Demand Charge and Energy Charge?

A. Minnesota Power proposes to increase the Demand Charge for the first 10,000 kW or
less of Billing Demand from \$229,330 to \$253,253, the Demand Charge for all
additional Firm Demand from \$22.25 to \$24.75 per kW-month, and the Transmission
Demand Charge from \$5.49 to \$9.44 per kW-month. The LP Firm Energy Charge is
proposed to increase from 1.087¢ per kWh to 1.369¢ per kWh.

23

24 Q. What revisions does Minnesota Power propose for Non-Contract LP Service?

A. The Non-Contract LP demand charges have historically been set 20 percent higher than
 standard LP demand charges as a strong incentive for these large customers to continue
 making long-term contractual commitments under the standard LP Service Schedule.
 Minnesota Power proposes to continue this precedent and again set the Non-Contract
 LP demand and Transmission Demand charges 20 percent higher than the standard

1		demand charges, which is \$303,904 for the first 10,000 kW, \$29.70 per kW for all
2		additional Billing Demand, and \$11.33 per kW for Transmission Demand.
3		
4		2. <u>LP DR Programs</u>
5	Q.	Does Minnesota propose any changes to the LP DR programs?
6	A.	Minnesota Power proposes to increase the Product A demand credit discount to \$2.00
7		per kW (versus the existing \$1.20 per kW) to align with evolving MISO requirements
8		to accredit demand response capacity within the MISO system. These evolving
9		requirements include MISO increasing the maximum number or interruptions from 10
10		times for the 2022-2023 MISO Planning Year to 16 times for the 2023-2024 MISO
11		Planning Year.
12		
13		These interruptions come at a risk and a cost to customer operations; thus, customer
14		decisions around DR participation are influenced by weighing these risks along with the
15		program's credit discount. As MISO DR requirements continue to evolve and
16		curtailment risk increases, it is imperative that DR customers are provided a
17		commensurate credit for that risk and for Minnesota Power to maintain its high
18		concentration of industrial DR on the system.
19		
20		Minnesota Power is proposing these changes as a part of the rate case because the \$1.20
21		per kW credit is built into current rates and, therefore, a change to that credit and its
22		allocation is best done in a rate case.
23		
24	Q.	How does the 2023–2024 MISO Planning Resource Auction ("PRA") influence the
25		proposed DR credit?
26	A.	The average seasonal clearing price for the 2023-2024 MISO PRA clearing price for
27		capacity was significantly lower than the 2022-2023 PRA that cleared at Cost of New
28		Entry ("CONE") pricing, or approximately \$7.20 per kW-month. MISO stated that
29		"[m]any of these actions may not be repeatable and the residual capacity and resulting

1		prices do not reflect the risks posed by the portfolio transition." ¹³ It is our perspective
2		that MISO's Reliability Imperative initiative work must continue to reform the resource
3		adequacy construct and market design for a successful transformation of the power
4		supply and maintain the same level of reliable service provided to customers today. As
5		the power supply transitions along with MISO markets and resource adequacy reform
6		continues, this type of volatility observed in the capacity clearing price will be the norm.
7		
8	Q.	What adjustments to test year revenues would be required to effectuate this change
9		for DR Product A?
10	A.	There was an adjustment made to reflect the impact of increasing the Product A demand
11		discount to \$2.00 per kW. This adjustment is discussed in the Direct Testimony of
12		Company witness Ms. Turner.
13		
14	Q.	Were there additional adjustments to test year revenues required for DR
14 15	Q.	Were there additional adjustments to test year revenues required for DR programs?
14 15 16	Q. A.	Were there additional adjustments to test year revenues required for DR programs? Yes. There was also an adjustment made to reflect a full year of lower curtailable credits
14 15 16 17	Q. A.	Were there additional adjustments to test year revenues required for DR programs?Yes. There was also an adjustment made to reflect a full year of lower curtailable credits due to a customer switching DR participation to Product C, the adjustment also reflects
14 15 16 17 18	Q. A.	 Were there additional adjustments to test year revenues required for DR programs? Yes. There was also an adjustment made to reflect a full year of lower curtailable credits due to a customer switching DR participation to Product C, the adjustment also reflects a full year of increased quantity and an increased credit to DR Product C.¹⁴ These
14 15 16 17 18 19	Q. A.	 Were there additional adjustments to test year revenues required for DR programs? Yes. There was also an adjustment made to reflect a full year of lower curtailable credits due to a customer switching DR participation to Product C, the adjustment also reflects a full year of increased quantity and an increased credit to DR Product C.¹⁴ These adjustments are discussed by Company witness Ms. Turner.
14 15 16 17 18 19 20	Q. A.	Were there additional adjustments to test year revenues required for DR programs? Yes. There was also an adjustment made to reflect a full year of lower curtailable credits due to a customer switching DR participation to Product C, the adjustment also reflects a full year of increased quantity and an increased credit to DR Product C. ¹⁴ These adjustments are discussed by Company witness Ms. Turner.
14 15 16 17 18 19 20 21	Q. A.	 Were there additional adjustments to test year revenues required for DR programs? Yes. There was also an adjustment made to reflect a full year of lower curtailable credits due to a customer switching DR participation to Product C, the adjustment also reflects a full year of increased quantity and an increased credit to DR Product C.¹⁴ These adjustments are discussed by Company witness Ms. Turner. G. <u>Proposed New Riders</u>
 14 15 16 17 18 19 20 21 22 	Q. A.	 Were there additional adjustments to test year revenues required for DR programs? Yes. There was also an adjustment made to reflect a full year of lower curtailable credits due to a customer switching DR participation to Product C, the adjustment also reflects a full year of increased quantity and an increased credit to DR Product C.¹⁴ These adjustments are discussed by Company witness Ms. Turner. G. <u>Proposed New Riders</u> Is Minnesota Power proposing to add any additional tariffs within this rate case?
 14 15 16 17 18 19 20 21 22 23 	Q. A. Q. A.	 Were there additional adjustments to test year revenues required for DR programs? Yes. There was also an adjustment made to reflect a full year of lower curtailable credits due to a customer switching DR participation to Product C, the adjustment also reflects a full year of increased quantity and an increased credit to DR Product C.¹⁴ These adjustments are discussed by Company witness Ms. Turner. G. <u>Proposed New Riders</u> Is Minnesota Power proposing to add any additional tariffs within this rate case? Yes. Minnesota is proposing to add the Rider for Voluntary Renewable Energy – Large
 14 15 16 17 18 19 20 21 22 23 24 	Q. A. Q. A.	 Were there additional adjustments to test year revenues required for DR programs? Yes. There was also an adjustment made to reflect a full year of lower curtailable credits due to a customer switching DR participation to Product C, the adjustment also reflects a full year of increased quantity and an increased credit to DR Product C.¹⁴ These adjustments are discussed by Company witness Ms. Turner. G. <u>Proposed New Riders</u> Is Minnesota Power proposing to add any additional tariffs within this rate case? Yes. Minnesota is proposing to add the Rider for Voluntary Renewable Energy – Large Customers and the Rider for Capacity Revenue and Expense Adjustment. Details of the
 14 15 16 17 18 19 20 21 22 23 24 25 	Q. A. Q. A.	 Were there additional adjustments to test year revenues required for DR programs? Yes. There was also an adjustment made to reflect a full year of lower curtailable credits due to a customer switching DR participation to Product C, the adjustment also reflects a full year of increased quantity and an increased credit to DR Product C.¹⁴ These adjustments are discussed by Company witness Ms. Turner. G. <u>Proposed New Riders</u> Is Minnesota Power proposing to add any additional tariffs within this rate case? Yes. Minnesota is proposing to add the Rider for Voluntary Renewable Energy – Large Customers and the Rider for Capacity Revenue and Expense Adjustment. Details of the proposed tariffs are further explained below.

¹³ 2023 MISO Planning Resource Auction Results Presentation, Slide 3_(May 19, 2023),
 <u>https://cdn.misoenergy.org/2023%20Planning%20Resource%20Auction%20(PRA)%20Results628925.pdf</u>.
 ¹⁴ In the Matter of the Petition for Approval of Minn. Power's Indus. Demand Response Product C Agreements,
 Docket No. E015/M-21-28, PETITION FOR APPROVAL (Jan. 6, 2021).

1.

Rider for Voluntary Renewable Energy - Large Customers

Q. Describe the Company's proposed Rider for Voluntary Renewable Energy – Large Customers.

- 4 The proposed Rider for Voluntary Renewable Energy - Large Customers would be A. 5 applicable to qualifying customers taking service under the LP Service Schedule or 6 LL&P Service Schedule. Participating customers could choose to offset a portion of 7 their firm energy requirements through an existing ESA with dedicated renewable 8 energy. The renewable energy would be provided from a new renewable generating 9 resource(s) that the Company would use to produce energy for sales to customer(s), as 10 a Dedicated Renewable Resource. The proposed tariff can be found in redlined format 11 in Volume 3, Direct Schedule J-3, Minnesota Power Electric Rate Book, Section V, 12 Page No. NEW-2, Rider for Voluntary Renewable Energy – Large Customers.
- 13

14 Q. Why is the Company proposing this new Rider for Voluntary Renewable Energy 15 - Large Customers?

- A. With increasing customer interest in sustainability efforts, Minnesota Power's large
 customers have expressed interest in having additional renewable resource
 opportunities. Due to the lead time necessary to have additional, dedicated renewable
 resources available for these customers, the Company developed the Rider for
 Voluntary Renewable Energy Large Customers.
- 21

Q. Please describe the Rider for Voluntary Renewable Energy – Large Customers in more detail.

A. The proposed Rider allows the Company and qualifying customers to work collaboratively on new Dedicated Renewable Resource projects. These projects would have a cap of 300 MW and be owned or procured by the Company to provide renewable energy to participating customer(s). This energy would be delivered first through the meter, and billed as a new rate, the Dedicated Renewable Resources rate. This rate would reflect the costs of the dedicated resource, administrative charges, and any other costs to ensure non-participating customers are not adversely impacted by the project. The participating customer would not pay any Fuel and Purchased Energy Charge costs associated with this energy.

23

1

4 Q. What information would be included in the ESA for approval under this proposed 5 Rider?

6 Customers would commit to a long-term off-take of the dedicated renewable energy A. 7 through the proposed Rider for Voluntary Renewable Energy – Large Customers with 8 detailed terms agreed upon in an ESA. The ESA would require approval by the 9 Commission in a separate docket. The ESA would provide detail about the renewable 10 asset, customer commitment, the Renewable Resource rate, and terms for early 11 termination, along with an analysis on the impact to participating and non-participating 12 customers. The ESA terms shall be written to ensure that the customer continues to 13 support the system costs required to provide them with electric service, ensuring that 14 the benefits they receive through participation in the Rider do not harm non-15 participating customers or the Company. Also, any Renewable Energy Credits 16 associated with the new Dedicated Renewable Resource under this proposed Rider 17 would be retired by the Company on the customer's behalf each year.

18

19

Q. How would the new Dedicated Renewable Resource impact other customers?

20 The Dedicated Renewable Resources rate is intended to recover revenue requirements A. 21 associated with the project, or Dedicated Renewable Resource, including any 22 administration fees. Upon ESA expiration with the customer, and for the remaining life 23 of the renewable asset, the Company will negotiate a new agreement or assume financial 24 obligations associated with the Dedicated Renewable Resource. Details would be 25 finalized during ESA negotiations and then the ESA would be submitted to the 26 Commission for approval. Furthermore, there is no impact to the test year, customer, or 27 Company financials because of the proposed rider.

28

1	Q.	How will the Rider benefit the participating customer?
2	A.	The customer will have additional Renewable Energy Credits retired on its behalf to
3		fulfill specific customer or industry goals or standards. Additionally, the customer will
4		have an option for additional renewables outside of the Company's plan. Finally, the
5		customer may benefit from the known pricing associated with the Renewable Resource
6		Rate as compared to the less certain average fuel and purchased energy costs on
7		Minnesota Power's system.
8		
9	Q.	What measures did the Company set to protect other customers from potential
10		negative impacts resulting from the project?
11	А.	First, a long-term contract with the customer for new resources, built and owned by a
12		regulated utility, will be necessary to show the customer's commitment to those costs
13		and responsibilities. Secondly, the participating customer must demonstrate financial
14		stability to be qualified for the Rider.
15		
16	Q.	Have any customers committed to a project with the Company that could be
17		applicable for this Rider?
18	A.	No. However, the Company is in ongoing conversations with customers who may be
19		interested.
20		
21		2. <u>Rider for Capacity Revenue and Expense Adjustment</u>
22	Q.	Please briefly describe the Company's proposed new Rider for Capacity Revenue
23		and Expense Adjustment.
24	A.	The Company is proposing a new Rider for Capacity Revenue and Expense Adjustment
25		that would recover capacity revenue and expense for capacity purchase and sales for
26		three years in length or less. The proposed Rider is unique in that it also creates a rate-
27		recovery mechanism to recover both the benefits and costs of short-term customer
28		demand response. This aligns with the Company's statement that it would continue to
29		develop a rate recovery mechanism for demand response programs in other proceedings,

1		which is reflected in the Commission's August 2023 Order ¹⁵ related to the Federal							
2		Infrastructure Investments and Jobs Act of 2021. The overall proposal is discussed in							
3		more detail in the Direct Testimonies of Company witnesses Ms. Julie I. Pierce and M							
4		Shimmin. The Company is therefore proposing to add a new tariff to the rate book. The							
5		changes are shown in redlined and clean format in Volume 3, Direct Schedules J-3 and							
6		J-2, respectively, Minnesota Power Electric Rate Book, Section V, Page No. NEW-3,							
7		Rider for Capacity Revenue and Expense Adjustment.							
8									
9		H. <u>Other Rider Proposals</u>							
10		1. <u>Fuel and Purchased Energy Adjustment</u>							
11	Q.	Is Minnesota Power proposing any changes to the Rider for Fuel and Purchased							
12		Energy Charge?							
13	А.	Yes. As clarified in the 2021 Rate Case and required by the Commission in Docket No.							
14		E015/GR-21-335, ¹⁶ Minnesota Power is proposing to have separate on-peak, off-peak,							
15		and super off-peak fuel and purchased energy TOD factors for LL&P customers that are							
16		on the Pilot Rider for LL&P Time-of-Use Service. This would provide time differential							
17		fuel and purchased energy rates for the LL&P TOU customers to reflect each customer's							
18		fuel and purchased energy costs during on-peak, off-peak, and super off-peak time							
19		periods more accurately.							
20									
21	Q.	How many customers does Minnesota Power anticipate taking service on the							
22		LL&P TOU tariff?							
23	А.	Minnesota Power anticipates that four current customers will use the LL&P TOU tariff.							
24									

¹⁵ In the Matter of Commission Consideration of Demand Response Under the Federal Infrastructure Investment and Jobs Act of 2021, Docket No. E999/CI-22-268, ORDER ON IMPLEMENTATION OF INFRASTRUCTURE INVESTMENT AND JOBS ACT RELATED TO DEMAND RESPONSE (Aug. 14, 2023).

¹⁶ In the Matter of the Application of Minnesota Power for Authority to Increase Rates for Electric Service in Minnesota, Docket No. E015/GR-21-335, ORDER DENYING PETITIONS FOR RECONSIDERATION AND GRANTING, IN PART, REQUESTS FOR CLARIFICATION at Order Point 1(f) (May 15, 2023).

Q. Please describe the proposed TOD Factor for LL&P customers?

A. A Fuel and Purchased Energy Adjustment ("FPEA") Factor will be applied to calculate
the Forecasted Fuel and Purchased Energy ("FPE") charge for LL&P customers. For
LL&P TOU customers, a TOD Factor will also be calculated for each TOD period,
using the existing Residential TOD Factors. The FPEA Factor is the Class Cost Factor
multiplied by the corresponding TOD Factor. Table 3 shows the Class Cost Factor, TOD
Factor, and FPEA Factor used to calculate the FPE charge.

- 8
- 9

 Table 3. LL&P Fuel and Purchased Energy Factors

Rate Class	Class Cost Factor	TOD Factor	FPEA Factor
LL&P	1.00656	1.00000	1.00656
LL&P On-Peak	1.00656	1.17042	1.17809
LL&P Off-Peak	1.00656	1.03330	1.04007
LL&P Super Off-Peak	1.00656	0.75930	0.76428

10

Q. Is the Company proposing any additional changes to the Rider for Fuel and Purchased Energy Charge?

A. Yes. Minnesota Power is proposing to include generation facility reagents and Oxides
of Nitrogen ("NOx") Allowances in the Rider for Fuel and Purchased Energy Charge.
Additional details can be found in the Direct Testimony of Company witness Ms. Pierce.
The changes are shown in redlined and clean format in Volume 3, Direct Schedules J-3
and J-2, respectively, Minnesota Power Electric Rate Book, Section V, Page No. 50,
Rider for Fuel and Purchased Energy Charge.

19 20

2. <u>Other Rider Proposals</u>

- Q. Is Minnesota Power proposing to make any other tariff changes to its existing
 riders?
- 23 A. Yes. Minnesota Power is proposing several tariff changes to existing riders:

1		• Delete the rider for City of Staples Franchise Fee from its tariff. The Company
2		proposes to delete this rider as the Company is no longer collecting this franchise
3		fee on behalf of the City of Staples. The change is shown in redlined format in
1		Volume 2 Direct Schedule I 2 Minnesote Power Electric Pate Pook Section
7		V Deve Ne 97 Didenfer Cite of Starley Eventier Even
3		v, Page No. 87, Rider for City of Staples Franchise Fee.
6		• Remove the Request for Budget Billing Plan Form within the Budget Billing
7		Plan tariff because it is outdated and no longer used. Instead, the Company will
8		provide a link to the online form. The change is shown in redlined and clean
9		format in Volume 3, Direct Schedules J-3 and J-2, respectively, Minnesota
10		Power Electric Rate Book, Section VI, Page No. 7, Request for Budget Billing
11		Plan Form.
12		• Update the Standard Contracts and Agreements due to being outdated. The
13		Company will remove the Application for Residential Electric Service example
14		and replace it with a link to the online form for both Residential and Commercial
15		customers. The change is shown in redlined and clean format in Volume 3,
16		Direct Schedules J-3 and J-2, respectively, Minnesota Power Electric Rate Book,
17		Section VII, Page No. 1, Standard Contracts and Agreements.
18		
19	Q.	Is Minnesota Power proposing any minor wording modifications within the rate
20		book?
21	A.	Yes. Minnesota Power is proposing several minor wording modifications to multiple
22		tariffs in the Company's rate book:
23		• Rider for Multiple Meter Service. The Company is proposing to remove
24		outdated language. The change is shown in redlined and clean format in Volume
25		3, Direct Schedules J-3 and J-2, respectively, Minnesota Power Electric Rate
26		Book, Section V, Page No. 53, Rider for Multiple Meter Service.
27		• Rider for Non-Metered Service. Minnesota Power is proposing to update the
28		units and estimated monthly energy usage/unit for the holiday lighting ("HL")
29		LED and HL-Incandescent (INCT). The change is shown in redlined and clean
30		format in Volume 3, Direct Schedules J-3 and J-2, respectively, Minnesota

Power Electric Rate Book, Section V, Page No. 67, Rider for Non-Metered Service.

1

2

- Rider for Incremental Production Service. The Company is proposing a
 modification to the pricing floor language to allow for more flexibility. The
 change is shown in redlined and clean format in Volume 3, Direct Schedules J3 and J-2, respectively, Minnesota Power Electric Rate Book, Section V, Page
 No. 69, Rider for Large Power Incremental Production Service.
- Rider for Business Expansion Incentive. Minnesota Power is proposing
 clarification under the section: Existing Customer. The added language is shown
 in redlined and clean format in Volume 3, Direct Schedules J-3 and J-2,
 respectively, Minnesota Power Electric Rate Book, Section V, Page No. 100,
 Rider for Business Expansion Incentive.
- Residential Service Rules. Minnesota Power is proposing minor wording
 clarifications within the Residential Service Rules tariff. The revised language
 is shown in redlined and clean format in Volume 3, Direct Schedules J-3 and J 2, respectively, Minnesota Power Electric Rate Book, Section VI, Page No. 2,
 Residential Service Rules.
- Electric Service Regulations of Minnesota Power. Minnesota Power is
 proposing clarifications in the following sections: Purpose and Contents, Service
 Agreements, and Company's Installation. The revised language is shown in
 redlined and clean format in Volume 3, Direct Schedules J-3 and J-2,
 respectively, Minnesota Power Electric Rate Book, Section VI, Page No. 3,
 Electric Service Regulations of Minnesota Power.
- Extension Rules. Minnesota Power is proposing some clarifications in the following sections: Extension Costs, General, Contributions, Basis for Making Extensions for Permanent Service Where Extension Costs are \$30,000 or less, Basis for Making Extensions for Temporary Service, Reapportionment and Refunds, and Special Conditions. The revised language is shown in redlined and clean format in Volume 3, Direct Schedules J-3 and J-2, respectively, Minnesota Power Electric Rate Book, Section VI, Page No. 4, Extension Rules.

	I. <u>Summary of Present and Proposed General Rates</u>
Q.	Please provide a summary of Minnesota Power's present rates and proposed
	general rates by rate class.
A.	A summary of proposed rate revisions for Residential, General Service, and LL&P are
	provided in Volume 3, Direct Schedule E-2, pages 48 and 50. The details of the
	proposed Lighting rate revisions are provided in Volume 3, Direct Schedule E-2, page
	41, and the proposed Large Power rate revisions are provided in Volume 3, Direct
	Schedule E-2, pages 61 and 62.
	IV. CONCLUSION
Q.	Does this complete your Direct Testimony?
A.	Yes.
	Q. A. Q. A.

Minnesota Power - 2024 Test Year General Rates Proposed Class Revenue Apportionment and Percent Increase

Line	Customer Class [A]	F	Present Rate Revenue [B]	Proposed Percent Increase [C]		Proposed Dollar Increase [D]		Proposed Final Rate Revenue [E]	(Final Rate Revenue E-Schedule) [F]	Final E-Schedule Increase [G]
1	Residential	\$	130,707,221	17.17%	\$	22,438,671	\$	153,145,892	\$	153,146,043	17.17%
2	General Service	\$	94,347,125	17.17%	\$	16,196,688	\$	110,543,813	\$	110,543,889	17.17%
3	Large Light & Power	\$	121,303,879	17.17%	\$	20,824,387	\$	142,128,266	\$	142,128,277	17.17%
4	Large Power	\$	383,928,144	17.17%	\$	65,909,420	\$	449,837,564	\$	449,837,550	17.17%
5	Lighting	\$	4,026,076	17.17%	\$	691,161	\$	4,717,237	\$	4,717,336	17.17%
6	Subtotal by Customer Class	\$	734,312,445		\$	126,060,328	\$	860,372,773	\$	860,373,095	17.17%
7 8	Dual Fuel Residential Dual Fuel Comm/Ind	\$ \$	8,406,658 2,033,981	16.90% 18.26%	\$ \$	1,420,995 371,361	\$ \$	9,827,653 2,405,342	\$ \$	9,827,653 2,405,342	16.90% 18.26%
9	Subtotal Dual Fuel	\$	10,440,639	17.17%	\$	1,792,356	\$	12,232,995	\$	12,232,995	17.17%
10	Total by Customer Class (Sales of Electricity including Dual Fuel)	\$	744,753,084	17.17%	\$	127,852,684	\$	872,605,768	\$	872,606,090	17.17%
11	Demand Response & Contract Revenue	\$	31,658,904		\$	-	\$	31,658,904	\$	31,658,904	
12	Total by Customer Class (Sales of Electricity including Demand Response & Contract Revenue)	\$	776,411,988	16.47%	\$	127,852,684	\$	904,264,672	\$	904,264,994	16.47%

Sources/Notes:

[B] Direct Schedule E-1, page 2. Excludes ongoing rider adjustments.

[D] Column [B] multiplied by column [C].

[E] Column [B] plus column [D].

[F] Direct Schedule E-1, page 2.

[G] Final proposed increase built into Direct Schedule E-1.