

**MONTANA-DAKOTA UTILITIES CO.**

**Before the North Dakota Public Service Commission**

**Case No. PU-22-194**

**Surrebuttal Testimony**

**of**

**Ronald J. Amen**

**April 11, 2023**

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**I. INTRODUCTION AND SUMMARY**

1 **Q. Please state your name and business address.**

2 A. My name is Ronald J. Amen, and my business address is 17806 NE 109th Court,  
3 Redmond, Washington 98052.

4 **Q. On whose behalf are you appearing in this proceeding?**

5 A. I am appearing on behalf of Montana-Dakota Utilities Co. ("Montana-Dakota" or  
6 the "Company").

7 **Q. Have you provided previous testimony in Case No. PU-22-194?**

8 A. Yes. I previously sponsored direct testimony and rebuttal testimony in this  
9 proceeding.

10 **Q. Did you sponsor any exhibits or schedules supporting your direct testimony?**

11 A. I sponsored Statement K, Statement L, and the following exhibits:

- 12 • Exhibit No.\_\_\_\_(RJA-1), Overall Bill Impact
- 13 • Exhibit No.\_\_\_\_(RJA-2), Estimated Residential Bill Increases

14 **Q. Please briefly summarize the subject of your direct testimony and the topics**  
15 **covered therein.**

16 A. My direct testimony presented Montana-Dakota's Cost of Service Study ("COSS")  
17 and discussed its results. I also presented the various rate design proposals filed  
18 by Montana-Dakota in this proceeding. My direct testimony consisted of the  
19 following sections:

- 20 • Principles of Cost Allocation
- 21 • The Cost of Service Process
- 22 • Selection of Class Cost of Service for Montana-Dakota
- 23 • Principles of Sound Rate Design

- 1 • Determination of Proposed Class Revenues
- 2 • Montana-Dakota's Rate Design Proposals
- 3 • Customer Bill Impacts

4 **Q. Please briefly summarize the subject of your rebuttal testimony and the**  
5 **topics covered therein.**

6 A. My rebuttal testimony addressed issues raised by the testimonies of AARP  
7 witness, Ronald Nelson; the Advocacy Staff of the North Dakota Public Service  
8 Commission ("Staff") witness, Dr. Marie Fagan; Marathon Petroleum Company LP  
9 ("Marathon") witness, Kavita Maini; and Walmart witness, Andrew D. Teague.

10 My rebuttal testimony addressed the "basic customer" approach, critique of  
11 Montana-Dakota's use of its traditional minimum system analyses, Montana-  
12 Dakota's distribution loss factors, use of a 4-CP as the demand allocator for fixed  
13 production (non-renewable) plant, as opposed to the 12-CP, critique of Montana-  
14 Dakota's flat kWh allocator for fuel and purchased power costs versus an "E8760"  
15 allocator, Class Revenue Allocation, Residential Rate Design, and General Electric  
16 Service Rate 30 Secondary ("Rate 30") rate design.

17 **Q. Did you sponsor any exhibits or schedules supporting your rebuttal**  
18 **testimony?**

19 A. Yes. I sponsored the following rebuttal exhibits:

- 20 • Exhibit No.\_\_\_\_(RJA-1R), Montana-Dakota's Line Loss Study
- 21 • Exhibit No.\_\_\_\_(RJA-2R) Summary of Minimum System / Zero-Intercept  
22 Research
- 23 • Exhibit No.\_\_\_\_(RJA-3R), MDU's Schedule of Planned Outages (2021)

24 **Q. Please summarize the purpose of your surrebuttal testimony.**

1 A. I will address certain issues raised by the surrebuttal testimonies of Marathon  
2 witness Ms. Maini, and AARP witness Mr. Nelson.

3 I will clarify Montana-Dakota's position regarding Marathon witness Ms.  
4 Maini's proposal to apportion revenue among the large general service customer  
5 classes based on a cost of service study using the 4-CP as the demand allocator  
6 for fixed production (non-renewable) plant, as opposed to the 12-CP demand  
7 allocator used in the Company's COSS. I will also address Ms. Maini's  
8 recommendation that Montana-Dakota use an "E8760" allocator for fuel and  
9 purchased power costs beginning 90 days from the implementation of the  
10 conclusion of this proceeding.

11 In response to AARP witness Mr. Nelson, I will discuss his surrebuttal  
12 testimony regarding Cost of Service, Class Revenue Allocation, and his proposed  
13 Residential Rate Design, which is an outgrowth of his basic customer classification  
14 and allocation proposal.

15

## II. REVENUE ALLOCATION TO THE LARGE GENERAL SERVICE CLASSES

16 **Q. Please summarize the viewpoint of Marathon witness Ms. Maini's surrebuttal**  
17 **testimony regarding the revenue allocation to the Large General Service**  
18 **classes.**

19 A. Marathon witness Ms. Maini does not oppose Montana-Dakota's revenue  
20 allocation to the major customer classes; however Ms. Maini recommends a  
21 change in the revenue allocation within the Large General Service classes that is  
22 based in part on her 4-CP class cost of service study results. Specifically, Ms. Maini

1 recommends shifting revenue allocation from Rate 30 Primary, Rate 32 Secondary,  
2 Contract Rate – Tesoro and Contract Rate – Sabin, to Rate 30 Secondary.

3 **Q. Please respond to Marathon’s request for a change to the revenue allocation**  
4 **for the Large General Service classes.**

5 A. The Company continues to recommend that it is appropriate to use the 12-CP  
6 allocation method for production and transmission demand-related costs on  
7 Montana-Dakota’s system. Montana-Dakota had rejected Ms. Maini’s 4-CP  
8 allocation method for all classes and therefore did not specifically address the  
9 bifurcation of revenue allocation methods for the different classes of customers.

10 **Q. What was the impact on the Large General Service customer classes**  
11 **resulting from Ms. Maini’s proposal?**

12 A. Ms. Maini’s proposal is to increase the revenue apportionment to Rate 30  
13 Secondary customers by \$617,210 and reduce the revenue apportionment to Rate  
14 30 Primary by \$402,213, Rate 32 Secondary by \$76,899, Contract Rate – Tesoro  
15 by \$113,280, and Contract Rate – Sabin by \$24,818.

16 **Q. Is Ms. Maini’s reallocation of revenue apportionment consistent with cost of**  
17 **service results?**

18 A. No. Of the Large General Service customer classes among which Ms. Maini has  
19 reallocated revenue, Rate 30 Secondary is the only class that is above parity  
20 (thereby indicating a rate decrease is warranted) in both the Company’s and  
21 Marathon’s cost of service studies. It is contrary to the cost of service results to  
22 increase the revenue apportionment to Rate 30 Secondary customers above the  
23 amount recommended by the Company under either a 4-CP or 12-CP scenario.  
24 To reiterate, there is no cost based justification, nor any other non-discriminatory  
25 rationale, for Ms. Maini’s proposal.

### **III. ALLOCATION OF FUEL AND PURCHASED POWER**

1 **Q. Please summarize the surrebuttal viewpoint of Marathon regarding the**  
2 **implementation of the E8760 allocator for fuel and purchased power energy**  
3 **costs.**

4 A. Marathon witness, Ms. Maini, expressed concerns about the delay in implementing  
5 the E8760 allocator until Montana-Dakota's next case. Ms. Maini suggests that  
6 Montana-Dakota could implement the E8760 allocator within the North Dakota  
7 jurisdiction in its fuel and purchased power rider, and that this should be done  
8 within 90 days of the conclusion of this rate case.

9 **Q. Please comment on Ms. Maini's suggestion for implementing a E8760**  
10 **allocation method.**

11 A. Montana-Dakota is opposed to implementing the E8760 allocation method prior to  
12 its next rate case for the reasons stated in direct testimony. Additionally, the  
13 Company has indicated that its regulatory calendar is full over the next 12 months  
14 and implementing the E8760 allocation would be an administrative burden and not  
15 allow adequate time and resources necessary to investigate, propose and  
16 implement the E8760 allocation methodology. .

### **IV. COST OF SERVICE STUDY**

17 **Q. In his surrebuttal testimony, AARP witness Mr. Nelson asserts that a utility's**  
18 **economic incentives can influence the numerous subjective determinations**  
19 **that are made during a COSS and references a portion of his direct testimony**  
20 **where he states, "a utility would typically prefer to shift costs away from**  
21 **groups that are more responsive to price increases such as commercial and**

1           **industrial (C&I) customers.<sup>1</sup> Has Montana-Dakota taken the opportunity to**  
2           **shift costs away from C&I customers to residential customers in this rate**  
3           **case?**

4    A.    No. An opportunity presented itself in the form of the introduction by Marathon  
5           witness Ms. Maini of the 4-CP allocation method as a replacement for the  
6           Company's current 12-CP method for production and transmission demand-  
7           related costs on Montana-Dakota's system. The 4-CP allocation method would  
8           allocate less costs to high load factor commercial and industrial customers. The  
9           Company declined to do so and provided supporting rebuttal evidence, as well as  
10          this surrebuttal testimony to that end.

11   **Q.    Mr. Nelson further states, "as the availability of third-party substitutes has**  
12          **accelerated, a utility "may take actions to make their services more cost**  
13          **competitive through otherwise inefficient rate design changes."<sup>2</sup> What**  
14          **services will an electric utility such as Montana-Dakota provide in a mixed**  
15          **monopoly and competitive environment?**

16    A.    As long as a customer is connected to the utility system the utility must provide  
17           that connection capacity, and that connection capacity must be large enough to  
18           deliver service to the customer based on the maximum demand of the customer.  
19           Some form of maximum demand of the customer determines the generation,  
20           transmission and distribution facilities that are required even if that demand only  
21           occurs a few times in the year. Further, the utility will need to meter and bill for  
22           service that it provides and to account for energy delivered to the utility by a partial  
23           requirements customer, such as a distributed generation ("DG") customer. Thus,

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<sup>1</sup> Nelson surrebuttal, at 4:1-4.

<sup>2</sup> Ibid, at 4-6.

1 customer-related costs will also continue and may even increase when customers  
2 install DG.

3           Since the maximum demand of a partial requirements customer may be no  
4 different than a full requirements customer, the partial requirements customer will  
5 pay far less to have the utility available to provide service than a full requirements  
6 customer when the fixed costs associated with “standing ready” to provide service  
7 are recovered in kWh charges. The simple reason is that a class that includes both  
8 full requirements customers and partial requirements customers is no longer  
9 homogeneous. Even separating the classes cannot solve the fundamental issue  
10 that different customers require different services and even different levels of those  
11 services. Rates need to be designed to provide a cost-based, and therefore  
12 economically efficient, just, and reasonable solution to the issue even if the class  
13 of service does not change.

14 **Q. In his surrebuttal testimony, Mr. Nelson states, “Because a utility's**  
15 **infrastructure investments are the source of its profits, a utility would prefer**  
16 **not to lose sales - whether due to competition from third party services or**  
17 **because customers respond to price increases - that could lessen or defer**  
18 **the need for infrastructure.” His rationale follows that Utilities may favor**  
19 **“C&I” customers because they are more responsive to price and provide**  
20 **more revenue than residential customers. Does this make sense?**

21 **A.** No. The transparent implication of Mr. Nelson’s examples is that subjective  
22 judgements made in classifying and allocating costs within the cost of service study  
23 are made to avoid losing sales and therefore profits. The reality is that earnings  
24 attrition suffered by utilities are the result of rates that are uneconomic, non-cost  
25 based, and predominantly volumetric, whereby the only avoided costs of a lost

1 kWh are the upstream variable power costs and related transmission costs flowed  
2 through to customers. The distribution cost of service study is not the source of the  
3 problem nor the remedy. Transforming demand related capacity costs and  
4 customer related distribution costs into energy costs with the stroke of a pen or  
5 keyboard doesn't alter the cost causative nature of the costs.

6 **Q. Mr. Nelson's examples of utility favoritism toward C&I customers is**  
7 **supported by "extensive research."<sup>3</sup> Have you any observations regarding**  
8 **this research?**

9 A. Yes. Witness Nelson uses a NERA Economic Consulting Group report (the "NERA  
10 Report") to support his position on the price elasticity of residential and industrial  
11 customers. He cites the report and claims the paper's literature review shows:

12 "...long-run price elasticities of demand for residents ranged from -  
13 0.32 to -0.98, while the industrial classes price elasticities of  
14 demand ranged from -0.56 to -3.36. The NERA report's findings  
15 also indicate that commercial and industrial demand is generally  
16 more elastic than residential demand."<sup>4</sup>

17 **Q. Is Mr. Nelson's interpretation of the NERA Report as a source directly**  
18 **relevant to this proceeding?**

19 A. No. Mr. Nelson's surrebuttal testimony presents a poor interpretation of the findings  
20 of the NERA Report. There are four reasons for this conclusion. First, while the  
21 NERA Report does consider separate demand equations for residential,  
22 commercial, and industrial customers, it does so with one of its explicit goals being  
23 to examine "the impact that retail competition has had on electricity prices."<sup>5</sup> The

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<sup>3</sup> Ibid, at 6:9-10.  
<sup>4</sup> Nelson surrebuttal, at 6:12-16.  
<sup>5</sup> "An Econometric Assessment of Electricity Demand in the United States Using Panel Data and the Impact of Retail Competition on Prices", Augustin J. Ros, June 9, 2015. Page 1.

1 analysis seemed to be predicated on the advent of retail unbundling of electric  
 2 generation and retail electric energy supply competition, which doesn't exist on  
 3 Montana-Dakota's system.

4 Second, the conclusions in the NERA Report are largely based on the use  
 5 of volumetric rate designs. It used FERC Form 1, revenues by class and sales  
 6 volumes in its modeling, which essentially assumes all revenues are produced by  
 7 volumetric rates, which has no relationship to the various rate structures and rate  
 8 components that produce the revenues, or the underlying nature of the distribution  
 9 cost drivers embodied in the rates.

10 Third, Mr. Nelson uses the results from the NERA Report's literature review  
 11 to inform his range of long-run price elasticities of demand by customer class. The  
 12 following figure is the table in the NERA Report used by witness Nelson to develop  
 13 his range.<sup>6</sup>

Table 1. Summary of Own-Price Elasticities of Demand from the Literature

Customer Class	Reference	Short Run	Long Run
Residential	Bohi and Zimmerman (1984) (consensus)	-0.2	-0.7
	Dahl and Roman (2004)	-0.23	-0.43
	Supawat (2000)	-0.21	-0.98
	Espey and Espey (2004)	-0.35	-0.85
	Bernstein and Griffin (2005)	-0.24	-0.32
Commercial	Bohi and Zimmerman (1984)	0	-0.26
	Bernstein and Griffin (2005)	-0.21	-0.97
Industrial	Bohi and Zimmerman (1984)	-0.11	-3.26
	Dahl and Roman (2004)	-0.14	-0.56
	Taylor (1977)	-0.22	-1.63
All	Dahl and Roman (2004)	-0.14	-0.32

Source: Paul, Myers and Palmer (2009), Table 5

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<sup>6</sup> NERA Report, page 2.

1 Note that two of the three data points in the table cited by witness Nelson are from  
2 studies conducted in 1977 (*Taylor*) and 1984 (*Bohi and Zimmerman*). The electric  
3 utility industry has evolved substantially since the late 1970s and early 1980s. The  
4 author of the NERA paper agrees, saying in the opening paragraph of the piece  
5 that since the early 1970s:

6 “...there have been major developments in the electricity sector  
7 including significant technological changes in generation services  
8 and the development of wholesale and retail competition.”<sup>7</sup>

9 Absent any additional context from Mr. Nelson, I give very little, if any, weight to  
10 those data points from 1977 and 1984. The last of the three studies for that  
11 customer class estimates long run price elasticity for industrial customers of -0.56  
12 (*Dahl and Roman, 2004*). This is squarely within the range data points for the  
13 residential class (-0.32 to -0.98) cited by witness Nelson and shown in the figure  
14 above from the NERA Report.

- 15 **Q. Do you have personal experience with price elasticity of electric utility rates?**
- 16 A. Yes. A current Atrium colleague and I conducted our own literature research in  
17 conjunction with a study prepared in response to a directive by the New Mexico  
18 Public Regulation Commission requiring Southwestern Public Service Company  
19 (“SPS” or the “Company”) to present, in its then upcoming base rate case, a study  
20 on the use of inclining block rates and an estimate of the conservation effect for  
21 SPS’s New Mexico retail service area for customers taking service under the  
22 Residential Service rate schedules.<sup>8</sup> An inclining block rate structure may be  
23 defined as a tiered rate structure in which consumption that occurs above a certain

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<sup>7</sup> NERA Report, page 1.  
<sup>8</sup> Study of Residential Inclining Block Rates, New Mexico Retail Service Area. Prepared for Southwestern Public Service Company, November 30, 2012. Study conducted and report authored by Ronald Amen and Julie Lieberman, Concentric Energy Advisors.

1 volume threshold is subject to a higher rate. Inclining block rates are intended to  
2 produce a conservation response from the customers to which the rates apply.

3 As part of our study we reviewed six technical and academic studies from  
4 2004 to 2011 that assessed the elasticity of electricity demand for residential  
5 customers on a national and regional scale.<sup>9</sup> The research showed differences  
6 between short run and long run price elasticities and geographic regional  
7 differences. From the results of our analysis, we noted that the conservation  
8 estimates are highly sensitive to the elasticity assumptions employed, and are  
9 reliant upon statistics that have been gathered in jurisdictions that may be very  
10 different from the respective utility's service territory.

11 Among our conclusions regarding the success of an inclining block rate  
12 structure in achieving conservation results is dependent on the customer's  
13 knowledge of conservation measures and the accuracy of assumptions of  
14 customer response to price, along with the customer's willingness and ability to  
15 conserve. Rates that are perceived to be indiscriminate or lack a cost basis may  
16 be viewed as unfairly punitive by heavy-use customers. Further, rates that are too  
17 complex may create confusion among customers and could lead to  
18 misinterpretation and incorrect responses. Lastly, we concluded that these rate  
19 structures must balance the competing incentives of conservation and cost  
20 recovery for the utility. In order for an inclining block rate program, geared towards

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<sup>9</sup> Demand elasticity is a measure of the response consumers have to changes in the price of a product. Specifically, price elasticity of demand (or, "demand elasticity") measures the percent change in demand that attends a one percent change in price. Elasticities are given by the simple equation (percent change in quantity / percent change in price) and are negatively sloped such that a negative price elasticity factor would indicate that increases in price would result in decreases in demand. Generally, demand elasticity factors that are greater than or equal to 1 or that are less than or equal to negative 1 are said to be "elastic"; while elasticity factors within the range of 1 and -1 are deemed to be relatively unresponsive and are considered "inelastic."

1 conservation, to be successful and fair to the utility's shareholders, the natural  
2 disincentive for the utility to promote conservation must be removed. Accordingly,  
3 rate programs designed to incent conservation should be accompanied by a  
4 mechanism for fixed cost recovery associated with lost revenues.

5 **Q. In his surrebuttal testimony Mr. Nelson asserts, "MISO and other RTOs are**  
6 **rapidly evolving to reflect higher penetrations of renewable resources. [My]**  
7 **direct testimony provided examples of how failure to adapt COSS and rate**  
8 **design to reflect this new reality could be quite costly for customers."**<sup>10</sup> **Are**  
9 **MISO costs appropriate for inclusion in Montana-Dakota's cost of service**  
10 **study?**

11 A. No.

12 **Q. How does Montana-Dakota recover MISO costs from its customers?**

13 A. Montana-Dakota recovers MISO related costs under two rate adjustment  
14 mechanisms, Rate 58 – Fuel and Purchased Power Adjustment ("FPPA"), and  
15 Rate 59 – Transmission Cost Adjustment ("TCA"). Both are recovered  
16 volumetrically per kWh from the Company's North Dakota electric customers.  
17 Under the FPPA, the net cost of purchases and costs linked to the utility's load  
18 serving obligation associated with participation in the wholesale electric energy  
19 markets are divided by retail sales volumes for the most recent four month period  
20 for the primary and secondary service classes and are adjusted monthly. Under  
21 the TCA, an adjustment per kWh is determined based on the cumulative  
22 transmission related costs and revenue credits eligible for recovery, as allocated  
23 to the North Dakota jurisdiction and the projected kWh sales for the recovery  
24 period. The adjustment per kWh is revised and reconciled annually to reflect the

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<sup>10</sup> Ibid, at 10:8-10.

1 current level of costs to be recovered and to reflect any over or under collection of  
2 revenue under the TCA.

3 **Q. AARP Witness Mr. Nelson states that your rebuttal testimony reinforced his**  
4 **opinion that the basic customer method is theoretically superior to the**  
5 **minimum system method. Please respond.**

6 A. There is nothing theoretically superior about the basic customer method. I have  
7 discussed the theoretical and cost based underpinnings of both the minimum  
8 system and the zero intercept methods in my direct and rebuttal testimony, while  
9 providing authoritative sources that support the recognition of the customer  
10 component of distribution facilities. The distinction is the basic customer method is  
11 only simpler than these utility industry accepted methods for determining the  
12 customer component of distribution system costs because it only considers service  
13 lines and meters for classification as customer related distribution plant.  
14 Furthermore, the basic customer method is an incomplete representation of the  
15 customer related distribution costs required to attach customers to the Montana-  
16 Dakota distribution system.

#### V. REVENUE APPORTIONMENT

17 **Q. Is Montana-Dakota proposing any revenue requirement revisions or changes**  
18 **to class revenue apportionment in your surrebuttal testimony?**

19 A. No.

20 **Q. Has your opinion of Mr. Nelson's proposed revenue allocation to Montana-**  
21 **Dakota's respective customer classes changed as a result of his surrebuttal**  
22 **arguments?**

1 A. No. Given that the underlying basis for Mr. Nelson’s proposed class revenue  
2 apportionment is COSS results under his basic customer method of cost allocation,  
3 I recommend that the Commission reject it.

4 **Q. Mr. Nelson revisits the rate shock issue addressed in your rebuttal testimony**  
5 **and concludes that regardless of how rate shock should be defined, 35%**  
6 **margin revenue increase is high. Do you agree?**

7 A. No. Furthermore, the 35% margin revenue apportionment that Mr. Nelson sites in  
8 his surrebuttal testimony as potentially causing rate shock equates to a total  
9 customer bill impact of less than 35% with the range between 17 and 26% for the  
10 three rate classes apportioned a 35% increase. A customer’s actual increase is  
11 dependent on their monthly use and demand.

## **VI. RESIDENTIAL RATE DESIGN**

12 **Q. Has the Company’s residential class rate design changed from the proposal**  
13 **described in your direct testimony and supported by your rebuttal testimony?**

14 A. No. Montana-Dakota has proposed to adjust the Basic Service Charges to better  
15 reflect the underlying costs of providing basic customer service for its customers  
16 based on the cost per customer component identified in the Company’s embedded  
17 class cost of service study. The Basic Service Charge can be characterized as a  
18 connection charge for access to service. It is imperative that appropriate fixed  
19 costs be collected through the Basic Service Charge in order to minimize intra-  
20 class subsidies and provide customers with the appropriate economic price  
21 signals. The Basic Service Charge under Residential Electric Service Rate 10 is  
22 proposed at \$0.67 per day which reflects an average monthly charge of \$20.38, an  
23 increase of approximately \$6.39 per month from the currently effective charge.

24 **Q. What is AARP’s Residential rate design proposal?**

1 A. Mr. Nelson recommends the Commission reject the Company's proposal to  
2 significantly increase the residential basic service charge and maintain the current  
3 charge for residential customers.

4 **Q. Mr. Nelson states his disagreement with increasing time-varying volumetric**  
5 **recovery "turns cost of service on its head" and claims you have not**  
6 **explained why you believe this to be the case. Did you make such a**  
7 **statement in your rebuttal testimony?**

8 A. No. Mr. Nelson has misrepresented my testimony. My use of the phrase "turns cost  
9 of service on its head" was directed to the *Modern Study* depicted in Figure 2: Cost  
10 of Service Study Approaches<sup>11</sup>, whereby all of the "demand" cost labels in the  
11 Allocation method column of the *Legacy Study* have been replaced in the *Modern*  
12 *Study* by "Energy." The phrase was used to emphasize the undermining of cost  
13 causation principles that have laid the foundation for utility cost of service analyses  
14 for decades and renders the NARUC Manual to forced obsolescence.<sup>12</sup> I have no  
15 disagreement with time-varying volumetric recovery of costs, as long as the  
16 underlying costs are actually volumetric; that is, energy related costs that vary  
17 between peak and off-peak periods. Mr. Nelson then surmises, "Given the  
18 increased penetration of renewable energy on the MDU system, increasing fixed  
19 charges and decreasing volumetric cost recovery would be moving in the wrong  
20 direction."<sup>13</sup> The only renewable energy "penetrating the MDU system" are coming  
21 from MISO, not from within the Montana-Dakota distribution system. As I  
22 mentioned earlier in this surrebuttal testimony the MISO costs are recovered in  
23 volumetric cost adjustment rates, FPPA Rate 58 and TCM Rate 59.

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<sup>11</sup> Amen Rebuttal, at 42:1-2.

<sup>12</sup> Amen Rebuttal, at 43:4-9.

<sup>13</sup> Nelson surrebuttal, at 21:23 – 22:2.

1 **Q. Do increases in fixed charges automatically result in decreases in volumetric**  
2 **cost recovery, as Mr. Nelson suggests?**

3 A. No. For example, Montana-Dakota's proposed increase to the Residential Basic  
4 Service Charge has not resulted in decreases to the seasonal energy charges for  
5 this rate schedule; the energy charges were increased as well. The proposed basic  
6 service charge of \$20.38 (stated on a monthly basis) will recover 70% of the  
7 Residential class customer related costs equal to \$29.28 in the Company's cost of  
8 service study, as shown in Statement K, page 1 of 17.

9 **Q. Mr. Nelson presumed that you chose not to respond to a 2015 Energy**  
10 **Information Administration (EIA) Residential Energy Consumption Survey**  
11 **(RECS) which collects information on energy characteristics, usage patterns,**  
12 **and household demographics from a nationally representative sample of**  
13 **households across the country because the information "speaks for itself."**  
14 **Was he correct in his presumption?**

15 A. No. I gave the information the consideration that I believe it deserves.  
16 Notwithstanding the speculative nature of conferring household demographic  
17 characteristics and "energy burdens" from national surveys on Montana-Dakota's  
18 customer base, I don't support the use of correlations derived from national  
19 surveys using representative samples of household demographics for the purpose  
20 of justifying rate structures for an entire class of residential customers for the  
21 benefit of a small subset of low-use and presumed low-income customers. I would  
22 advise regulators that wish to socialize subsidies for low-income, low-use  
23 customers through utility rates to be explicit and create rate and/or total bill  
24 discounts for these customers, as some jurisdictions such as New Hampshire and  
25 Massachusetts have done, rather than exacerbating existing intra-class subsidies.

1 The lost revenues from the discounts are then recovered from all remaining  
2 customers via “Residential Assistance Adjustment” riders.

3 **Q. Mr. Nelson opines, without evidence, that LIHEAP recipients are unlikely to**  
4 **be reflective of low-income customers as a whole (including those not**  
5 **receiving assistance) because receiving subsidies for electricity would tend**  
6 **to encourage electricity consumption.<sup>14</sup> Do you share his concern?**

7 A. No. My clients who have implemented low-income discounts have not reported  
8 remarkable levels of wasteful increases in usage by this otherwise thrifty  
9 demographic, when receiving rate or bill discounts.

10 **Q. Mr. Nelson says that your rebuttal testimony did not ease his concerns that**  
11 **increasing the customer charge would disproportionately harm low-income**  
12 **customers. He then suggests that your entire argument appears to be that a**  
13 **single report that you identified does not include a discussion regarding how**  
14 **increasing customer charges harms low-income customers. Are you**  
15 **surprised by his comments?**

16 A. No. The single report Mr. Nelson mentioned is a comprehensive study of low  
17 income energy affordability by the Oak Ridge National Laboratory in 2020 titled,  
18 *Low-Income Energy Affordability: Conclusions from a Literature Review.*<sup>15</sup> It  
19 examines the persistent problem of high energy burdens among low-income  
20 households, based on a review of more than 180 publications that pointed to  
21 several promising opportunities to address energy affordability and discusses  
22 numerous programs to address low income energy burden. Some of the  
23 conclusions from the report, and several promising technology approaches that

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<sup>14</sup> Nelson Direct, at 38:2-5.

<sup>15</sup> Marilyn A. Brown, Anmol Soni, Melissa V. Lapsa, Katie Southworth, Oak Ridge National laboratory, *Low-Income Energy Affordability: Conclusions from a Literature Review*, March 2020.

1 are not generally well integrated into low-income energy programs are included in  
2 my rebuttal testimony. Some policies that can be designed to address the gaps  
3 include:

- 4 • States are using minimum requirements and adders to cost-effectiveness  
5 tests to promote greater investment in low-income energy programs.
- 6 • New program designs can align incentives more effectively for building  
7 owners and tenants.
- 8 • Strong community engagement and effective building owner and property  
9 manager partnerships can help reach multifamily markets.
- 10 • Active community involvement can expand participation rates and enhance  
11 the success of low-income energy programs.

12 I thought AARP might find the report informative and discover some areas where  
13 it could direct some of its members' dues.

## **VII. CONCLUDING REMARKS**

14 **Q. Please summarize the findings and conclusions in your surrebuttal**  
15 **testimony.**

16 A. I continue to support the conclusions and recommendations attested to in my  
17 Direct and Rebuttal testimonies and I have not been persuaded to change any  
18 recommendations as a result of the surrebuttal testimonies filed in this case. My  
19 rebuttal findings and conclusions are summarized below:

### Revenue Allocation to the Large General Service Classes

21 The Company continues to recommend that it is appropriate to use of the  
22 12-CP allocation method for production and transmission demand-related costs  
23 over the 4-CP allocation method. Montana-Dakota rejects the reallocation of  
24 revenue among the Large General Service customer classes because there is no

1 cost based justification, it is not based on the 12-CP allocation method, nor is it  
2 supported by Marathon's cost of service study using the 4-CP allocation method.

3 Allocation of Fuel and Purchase Power

4 Montana-Dakota has indicated its willingness to investigate the  
5 development of the E8760 allocation method for allocation of the Company's fuel  
6 and purchased power energy costs, and to prepare an evaluation of its application  
7 and proposal for its next electric North Dakota general rate case. Montana-Dakota  
8 continues to oppose the implementation of the E8760 allocation method prior to its  
9 next general rate case filing because it requires adequate time to complete the  
10 work required.

11 Cost of Service Study

12 AARP witness Mr. Nelson's surrebuttal testimony imparts subjective  
13 decision making characteristics on objective analysis of the underlying cost  
14 causation characteristics of Montana-Dakota's distribution infrastructure. Analyses  
15 performed that depart from his cookie cutter methodological view of electric utility  
16 cost of service studies are determined to be erroneous or replete with mistakes.

17 AARP introduces price elasticity of demand as a consideration that  
18 Montana-Dakota applied to its COSS. This is not true. Furthermore, Mr. Nelson  
19 misrepresents the NERA report cited in his testimony as support for his assertion.  
20 In actuality, price elasticity of demand was not a factor in the Company's COSS  
21 and the conclusions of the study cited by Mr. Nelson do not even support the  
22 concept for which he accuses the Company of exploiting.

23 AARP witness Mr. Nelson claims that costs related to MISO and other  
24 RTOs which reflect higher penetrations of renewable resources are appropriate for  
25 inclusion in Montana-Dakota's cost of service study. MISO costs have no place in

1 the cost of service study. Montana-Dakota recovers MISO related costs under two  
2 separate rate adjustment mechanisms and not in base rates.

3 AARP witness Mr. Nelson claims the basic customer method is theoretically  
4 superior to the prevailing minimum plant methods accepted throughout the utility  
5 industry. This is not true. The basic customer method is just simpler, but it is an  
6 incomplete representation of the customer related distribution costs required to  
7 attach customers to the Montana-Dakota distribution system. The cost of service  
8 study based on the basic customer method of classification and allocation should  
9 be rejected.

#### 10 Revenue Apportionment and Rate Design

11 AARP witness Mr. Nelson revisits class revenue apportionment based on  
12 his COSS results under his basic customer method of cost allocation. I recommend  
13 that the Commission reject it. AARP witness Mr. Nelson further opines that a 35%  
14 margin revenue increase to any customer class is high, and arbitrarily selects 20%  
15 as a cap in order to shift additional revenue recovery to classes that are already  
16 producing revenue above their cost of service. I disagree with AARP's arbitrary  
17 ceiling, and I further demonstrated that the 35% increase in margin revenue  
18 equates to a lesser percentage of customer bill impact. The Commission should  
19 reject AARP's proposed revenue apportionment.

#### 20 Residential Rate Design

21 AARP witness, Mr. Nelson proposes no change in Montana-Dakota's  
22 residential basic service charge based on his proposed basic customer method for  
23 cost classification and allocation. The basic customer method fails to consider all  
24 of the customer related costs of the Montana-Dakota distribution system required  
25 to connect customers to load. This failure results in customer-related costs being

1           understated. The Commission should reject the artificial reduction of customer  
2           related distribution system costs proposed by AARP under the basic customer  
3           method in favor of the to Company's proposal to collect 70% of the residential  
4           class's customer related costs in the basic service charge.

5   **Q.    Does this conclude your surrebuttal testimony?**

6   A.    Yes.