MONTANA-DAKOTA UTILITIES CO.

Before the South Dakota Public Utilities Commission

Docket No. NG23-____

Direct Testimony

Of

Nathan A. Bensen

Q. Would you please state your name and business address?

A. Yes. My name is Nathan A. Bensen, and my business address is 400 North Fourth Street, Bismarck, North Dakota 58501.

Q. What is your position with Montana-Dakota Utilities Co.?

A. I am a Senior Regulatory Analyst in the Regulatory Affairs Department for Montana-Dakota Utilities Co. (Montana-Dakota).

Q. Would you please describe your duties as a Regulatory Analyst?

A. I assist in the preparation of the annual electric rider filings in North Dakota and South Dakota, weather normalization of natural gas volumes, and other filings required by state commissions.

Q. Would you please describe your education and professional background?

A. I graduated from the University of North Dakota with a Bachelor of Accountancy degree. I have been in my current position with Montana-Dakota for six years. Prior to starting in my current role June of 2017, I was employed by the State of North Dakota as an Auditor for sales, use

and gross receipts taxes with the Office of the Tax Commissioner; and a Cost Report Auditor with the Department of Health and Human Services.

Q. Have you testified in other proceedings before regulatory bodies?

A. Yes. I have previously presented testimony before this Commission and have prepared testimony for the North Dakota Public Service Commission.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to present the methodology used by Montana-Dakota to forecast natural gas sales data, including weather normalized volumes, pro forma volumes and pro forma customers. The totality of this process and its results are the foundational basis for the underlying pro forma revenues used in this rate case.

Q. What statements, schedules and exhibits are you sponsoring?

A. I am sponsoring the development of the pro forma billing units as presented on Exhibit No. ___(NAB-1) and ultimately used in the pro forma revenues on Rule 20:10:13:85 Statement I. The results presented on Exhibit No. ___(NAB-1) are supported by the regression models included in Workpapers Statement I, pages 2 through 40.

Q. Would you describe the development of the normalized volumes?

A. Natural gas volumes for residential, firm general, and select interruptible and transportation customers were adjusted to reflect normal weather patterns, where appropriate. Each of the aforementioned customer classes were adjusted separately. Billing period sales volumes

and customers, by month, were the starting point for the data utilized in the models.

First, customer classes were analyzed to determine whether natural gas usage was associated with heating purposes and therefore correlated with weather with input from Montana-Dakota's Gas Supply Department. The general idea of heat-sensitivity is that some customers will increase the amount of natural gas that they consume as the outside temperature drops. Typically, this increase in consumption is cyclical with the calendar – as fall and winter set in, natural gas volumes sold to customers tend to increase. However, there are certain customers and instances in which colder weather is not correlated with the amount of natural gas consumed – these customers are considered non-heat-sensitive.

All firm service customer classes were determined to be heat-sensitive. Interruptible and transportation customers were analyzed on an individual basis and grouped into heat-sensitive and non-heat-sensitive by each customer class.

Q. How were the normalized volumes calculated for heat-sensitive customers?

A. For customer classes and individual customers that were determined to be heat-sensitive, weather and billing data were incorporated into a regression model for each respective class of service. To incorporate seasonal weather patterns, billing period degree days based on a 60-degree day were included as an input in the modeled

regressions. Billing data used as inputs in the model were the monthly distinct count of customers and the actual dekatherms of gas consumed. The time period for each customer class in the modeled regressions was 36 months, or 3 years.

Using the results of the regression analysis for residential and firm general service customer classes, the daily baseload use per customer was multiplied by the respective number of days in each calendar month to arrive at the monthly baseload use per customer. The use per degree day per customer was then applied to the normal billing period degree days (based on normal weather for 30 years) to determine the normalized heating use per customer. Montana-Dakota has historically used 30-year normals for weather normalization purposes and believes that using 30-years of normal weather data continues to be most appropriate to capture historical weather trends. The results of each of these equations was then combined by the number of customers in each respective month to determine the normalized usage for the twelve months ended December 31, 2022.

Q. How were the normalized volumes calculated for non-heat-sensitive customers?

A. For customers that were determined to be non-heat-sensitive, simple averages of historical consumption patterns were utilized. These averages are considered to be the normalized volumes for the non-heat-sensitive customers. These averages were calculated at an individual

customer level. For most non-heat customers, a 36 month average was calculated (January 2020 – December 2022). Exceptions to the 36 month average are discussed in more detail below.

Q. Was any consideration given to customers which changed rate classes?

A. Yes. Montana-Dakota analyzed the historical data for interruptible and transportation customers that changed rate classes during the time period in the data. During the time period of 2020 through 2022, there were no customers identified to be changing from one rate class to another. Montana-Dakota also discussed internally with its field operations and gas supply departments to determine if there were any foreseeable changes to the classifications of its interruptible and transportation customers. There were no known customers changing classes at the time of the preparation and finalization of the normalized and pro forma volumes.

Q. Were other considerations necessary for customers?

A. Yes, the removal of select customers from Rate 71 and Rate 81 was also required. Due to the margin sharing adjustment for Montana-Dakota's grain dryers through the purchased gas adjustment, all grain drying customers were removed from the Company's normalized and projected volumes for Rate 71. To further ensure the integrity of the projected volumes, customers that were not active at the end of 2022

were completely removed from the entirety of the underlying data for Rate 71 and Rate 81.

Q. How were the pro forma volumes calculated for heat-sensitive customers?

A. The pro forma volumes were based upon the calculated normalized volumes for each customer class. For the residential and firm general rate classes, Montana-Dakota utilized an annualization process to obtain a pro forma level of customers and volumes. The annualization process allows for Montana-Dakota to account for customer growth within 2022 and reflect volumes had these new customers been in service for the entire calendar year of 2022. For other heat-sensitive customers and classes, the pro forma volumes were set equal to the normalized volumes as calculated and described previously.

Pro Forma volumes for Rate 60 customers were also increased for the expected addition of customers in the North Deadwood Expansion area, as noted on Exhibit No. ___ (NAB-1).

Q. How were the pro forma volumes calculated for non-heat sensitive customers?

A. A majority of the pro forma volumes for these customers were set equal to their normalized volumes. Based on internal conversations with the Company's energy supply group and field operations staff, a different total was used. These customers will be summarized below:

In Rate 71, one customer began taking service in August of 2022. Pro forma volumes for this customer were adjusted to reflect the annual expected use. Also in Rate 71, another customer experienced reduced volumes in 2022 compared to prior years and it was determined the 2022 actual volumes were more representative of what is expected in the future.

In Rate 81, two customers experienced increasing volumes in 2022 when compared to prior years. It was determined the 2022 actual volumes were more representative of what is expected in the future.

In Rate 82, there was one customer that experienced reduced volumes in 2022 compared to prior years. In this case, it was expected that the customer would experience more use in 2023 when compared to 2022, but would not be to the level of use in prior years. Field operations staff were able to provide an estimate of total annual use expected for 2023 after discussions with the customer.

Q. Would you describe the weather data utilized in developing weather normalized gas sales?

A. Montana-Dakota purchases raw daily weather data from DTN. The data utilized in the weather normalizations is the average temperature in degrees Fahrenheit for areas that Montana-Dakota provides natural gas service in South Dakota. The daily average temperature is compared to an industry standard 60 (sixty) degrees Fahrenheit and if the temperature is below 60 degrees, the difference is considered the degree day value. For example, if the average daily temperature is 55 for March 1st, then the

amount of degree days is 5 (60-55=5). These temperatures are collected from three regional weather stations in South Dakota (Mobridge, Pierre, and Rapid City) and the differences for each day are considered calendar degree days. These calendar degree days for each respective area are then weighted based upon the amount of historical number of bills that are sent to customers in each respective billing period cycle to calculate a billing period degree day (BPDD) for each of the three regions. These regional BPDDs are then weighted based upon the historical number of firm customer service points to calculate a system-wide South Dakota BPDD.

Q. Would you describe the methodology used to calculate customer counts?

A. Montana-Dakota's Customer Care and Billing System (CC&B) was the starting point for the development of the customer counts. Microsoft Excel's Distinct Count function was used to count the number of unique customers. The Count function in Excel counts the total number of values corresponding to a range of data, regardless if a specific value has multiple entries in the data set. The Distinct Count function has been utilized by Montana-Dakota to determine its customer counts in rate cases filed in other jurisdictions as it accounts for adjustments and corrections to customer bills in the CC&B data set.

Q. Does this complete your direct testimony?

A. Yes, it does.