Exh. BLR-1T
Docket UG-240008
Witness: Brian L. Robertson

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, v. CASCADE NATURAL GAS CORPORATION, Respondent.	DOCKET UG-240008

CASCADE NATURAL GAS CORPORATION

DIRECT TESTIMONY OF BRIAN L. ROBERTSON

March 29, 2024

TABLE OF CONTENTS

LIST OF EXHIBITS

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Brian L. Robertson and my business address is 8113 West Grandridge Blvd., Kennewick, WA 99336.

Q. By whom are you employed, for how long, and in what capacity?

A. I am employed by Cascade Natural Gas Corporation ("Cascade" or "Company"), a wholly owned subsidiary of MDU Resources Group, Inc. ("MDU Resources"), as Manager of Supply Resource Planning. In this capacity, I have oversight over two Resource Planning Economists while performing long-term forecasting, market research, upstream modeling, carbon compliance modeling, and other duties regarding the Integrated Resource Plan.

Q. Please briefly describe your educational background and professional experience.

A. I graduated from Central Washington University with a degree in Actuarial Science in 2013. After graduating, I joined Cascade in February 2014 as a Regulatory Analyst. I joined the Gas Supply department in March 2015 as a Resource Planning Analyst II. In July 2016, I was promoted to Senior Resource Planning Analyst. In June 2019, I was promoted to Supervisor of Resource Planning. In December 2023, I was promoted to Manager of Supply Resource Planning.

I previously testified before this Commission in Cascade's most recent Washington rate cases: Dockets UG-152286, UG-170929, UG-190210, UG-200568, and UG-210755. I have also testified before the Public Utility Commission of Oregon in Cascade's Oregon rate cases: Dockets UG 347 and UG 305.

II. SCOPE AND SUMMARY OF TESTIMONY

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

A. My testimony will address the results of Cascade's weather normalization study that I performed for this case. Based on this analysis, I show the adjustments necessary to establish the normalized level of therm sales that would have occurred during this proceeding's test year (calendar year 2023) if Cascade had experienced normal weather during this period. The adjustments that I recommend here only apply to the Company's Residential and Commercial Schedules 503 and 504, respectively.

Q. Are you sponsoring any exhibits in this proceeding?

A. Yes, I sponsor the following exhibits:

Exh. BLR-2 Weather Normalization Results

III. WEATHER NORMALIZATION

Q. Generally speaking, why does Cascade perform weather normalization?

A. Weather normalization is performed to adjust the Company's test year sales volumes to represent what the test year sales volumes would have been had the weather during the test year been normal. This stabilizes delivery service gas revenues and reduces the impact of extreme weather on gas bills. The Company's billing determinants used to set rates in this case are based on weather-normalized volumes from the test year. Without adjusting the test year volumes to account for weather, the test year volumes used to calculate revenues may be distorted, potentially resulting in the over- or under-collection of revenues. Please see Jacob A. Darrington's direct testimony, Exh. JAD-1T, for a discussion of the Company's use of weather-normalized volumes for the test year in this case.

Q. As background, please explain the recent history leading to adoption of the weather normalization methodology performed by Cascade for this case.

A. In Docket UG-152286, and pursuant to Order 04 in that proceeding, Cascade and Commission Staff worked together to formulate the Company's weather normalization methodology in use today.[1] This same methodology was subsequently approved by the Commission and used to set rates in Dockets UG-170929 and UG-190210.[2]

Q. Please briefly describe the weather normalization model.

A. In the agreed-upon methodology, Cascade uses a linear regression model to examine ten years of National Oceanic and Atmospheric Administration ("NOAA") weather data and ten years of historical therm usage per customer per month for residential and commercial customers. Cascade then applies monthly heating degree days ("HDDs")[3] for Cascade's four weather locations: Bellingham, Bremerton, Walla Walla, and Yakima.[4] The model produces an intercept that indicates the "base load" therms per customer. The model also provides a best fit coefficient of use per customer for each month and weather location for both the residential and commercial customer classes. The best fit coefficient represents the heat sensitivity[5]

[1] *WUTC v. Cascade Nat. Gas Corp*, Docket UG-152286, Order 04 at ¶¶ 13 and 32 (July 7, 2016).
[2] *WUTC v Cascade Nat. Gas Corp*, Docket UG-170929, Order 06 at ¶ 81 (July 20, 2018); *WUTC v. Cascade Nat. Gas Corp*, Docket UG-190210, Exh. BLR-1T at 2:5-3:2 (March 29, 2019).
[3] A heating degree day is a measure of how cold the temperature was on a given day or during a given period relative to a base temperature. An HDD is calculated by taking the average of the high and low temperature for a given day and subtracting it from 60, the reference temperature. If that results in value below zero, that value is replaced with zero.
[4] *See WUTC v. Cascade Nat. Gas Corp*, Docket UG-152286, Joint Settlement Agreement at ¶ 44 (May 13, 2016).
[5] Heat sensitivity means that when temperatures get colder, HDDs rise, and usage rises. For example, a coefficient of 0.05 therms per HDD would mean that for each increase in HDD, usage would increase by 0.05 therms.

use per customer per HDD. Finally, the model includes a trend term that captures changes in customer therm usage behavior not related to weather. Cascade modified the methodology slightly, in Docket UG-200568, by changing the final calculation of the weather normalized therms.[6] This modified methodology was used to set rates in Docket UG-210755.[7]

Q. Is Cascade using the same methodology in this proceeding?

A. Yes.

Q. Please provide the results of Cascade's weather normalization study for the Test Year.

A. The proposed methodology described above produced the following conclusions and test year weather normalized therms: residential therm usage is calculated to be 129,258,157 therms and commercial therm usage is calculated to be 91,613,013 therms. These are the totals in columns "D" and "I" of the table in the first exhibit to my direct testimony, Exh. BLR-2. The 2023 actual therms for residential and commercial are 125,222,746 and 91,384,163, respectively. This is an adjustment upwards of 4,035,411 therms for residential and 228,850 therms for commercial.

IV. CONCLUSION

Q. Does this conclude your direct testimony?

A. Yes.

[6] *See WUTC v. Cascade Nat. Gas Corp.*, Docket UG-200568, Exh. BLR-1T at 4:3-9:3 (July 19, 2020).
[7] *See WUTC v. Cascade Nat. Gas Corp.*, Docket UG-210755, Exh. BLR-1T at 3:9-6:2 (Sept. 30, 2021).