BEFORE THE WASHINGTON

UTILITIES & TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Complainant,

v.

CASCADE NATURAL GAS CORPORATION,

Respondent.

DOCKET UG-240008

RESPONSE TESTIMONY OF DAVID E. DISMUKES, PH.D. ON BEHALF OF THE WASHINGTON STATE OFFICE OF THE ATTORNEY GENERAL PUBLIC COUNSEL UNIT

EXHIBIT DED-1T

September 25, 2024

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TABLE OF CONTENTS

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DOCKET UG-240008

EXHIBIT DED-1T

EXHIBITS LIST

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is David E. Dismukes. My business address is 5800 One Perkins Place Drive, Suite 5-F, Baton Rouge, Louisiana, 70808.

Q. Please State your occupation and place of employment.

A. I am a Consulting Economist with the Acadian Consulting Group (ACG).

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the Public Counsel Unit of the Washington Attorney General's Office (Public Counsel).

Q. Please describe ACG and its areas of expertise.

A. ACG is a research and consulting firm that specializes in the analysis of regulatory, economic, financial, accounting, statistical, and public policy issues associated with regulated and energy industries. ACG is a Louisiana-registered partnership, formed in 1995, and located in Baton Rouge, Louisiana.

Q. Do you hold any academic positions?

A. Yes. I am a professor emeritus at Louisiana State University (LSU). Prior to my retirement in January 2023, I served as a full professor, executive director, and director of policy analysis at the LSU Center for Energy Studies and as a full tenured professor in the Department of Environmental Sciences and the director of the Coastal Marine Institute in the LSU College of the Coast and Environment. I also served as a senior fellow at the Institute of Public Utilities at Michigan State University, where I taught energy regulatory staff and other utility stakeholders about principles, trends, and issues in the electric and natural gas industries.

Exhibit DED-2 provides my academic curriculum vitae, which includes a full listing of my publications, presentations, pre-filed expert witness testimony, expert reports, expert legislative testimony, and affidavits.

Q. Have you previously testified before the Washington Utilities and Transportation Commission?

A. Yes. Exhibit DED-2 includes a list of the Washington Utilities and Transportation Commission (Commission) proceedings in which I have testified, a list of all my publications, presentations, pre-filed expert witness testimony in other jurisdictions, expert reports, expert legislative testimony, and affidavits.

Q. Was this testimony prepared by you or under your supervision?

A. Yes. Although my colleagues at ACG assisted me with the research related to the formulation of my opinions, as well as the preparation of my testimony, the opinions are mine alone.

Q. What is the purpose of your testimony?

A. I have been retained by the Public Counsel to provide expert testimony and opinions to the Commission on a number of regulatory issues implicated by the application of Cascade Natural Gas Corporation (CNGC, or Company), including revenue distribution and rate design.

Q. How is the remainder of your testimony organized?

A. The balance of my testimony is organized into the following sections:

- Section II: Summary of Recommendations
- Section III: Revenue Distribution
- Section IV: Rate Design

- Section V: Conclusions and Recommendations

Q. Please identify the exhibits supporting your response testimony.

A. The following Response Exhibits accompany my response testimony:

- Exhibit DED-2 Curriculum Vitae of David E. Dismukes
- Exhibit DED-3 Company's Proposed Revenue Distribution
- Exhibit DED-4 Alternative Equal Revenue Distribution
- Exhibit DED-5 Alternative Upper Limit Revenue Distribution
- Exhibit DED-6 Comparison of Current and Company Proposed Basic Service Charges
- Exhibit DED-7 Analysis of Basic Service Charges to Customer-Related Costs
- Exhibit DED-8 Residential Bill Comparison at Different Usage Levels

II. SUMMARY OF RECOMMENDATIONS

Q. What is your recommendation regarding the Company's proposed revenue distribution?

A. I recommend the Commission adopt a more reasonable approach by distributing revenues on an equalized basis across customer classes. My recommendation would set the base revenue increase for all customer classes (with the exception of special contracts) equal to 24.92 percent, compared to the Company's proposed maximum rate increase of 34.01 percent.

Q. If the Commission decides not to support my recommendation, what limitations should be considered to ensure rate gradualism?

A. If the Commission does not support an equal increase across customer classes, I recommend the Commission establish an upper limit on the base rate increase allocated to any single customer class. More specifically, I recommend this upper limit be set at 1.15 times the overall system average increase. Using the Company's proposed system average increase in margin revenues of 24.30 percent, this upper limit would reduce the maximum total base revenue increase of any single rate class to 27.94 percent, compared to the Company's proposed maximum rate increase of 34.01 percent.

Q. What is your recommendation regarding the Company's basic service charge proposal?

A. I recommend that the Commission reject the Company's proposed increase in basic service charges (which includes residential customers) for a number of reasons. First, the Company's proposed $10.00 per month residential basic service charge in 2025 would be 44 percent higher than the Company's customer-related costs. Second, the Company's proposal would negatively impact the public policy goals of energy efficiency and would burden low-use customers with a greater than average portion of any proposed increase in the case. Finally, the Company's proposed increase in basic service charges is unnecessary to provide revenue certainty as CNG has a decoupling mechanism in place that allows the utility to reconcile rates for changes in customer usage. Instead, I recommend the basic service charge for each class be increased no more than the percentage rate increase in revenue requirement for that class.

III. REVENUE DISTRIBUTION

Q. Please explain the purpose of the revenue distribution process in setting rates.

A. The revenue distribution process (which can also be called the "revenue spread" or "rate spread" process) allocates (or "spreads") a utility's overall revenue deficiency across customer classes, which in turn is used to establish a new set of retail rates to be applied prospectively. The revenue distribution process often uses the results from the class cost of service study (CCOSS) as its starting point, but not necessarily as its ending point. Class-specific revenue responsibilities are established by allocating the system-wide revenue deficiency to classes that are under-earning, relative to their estimated rate of return (ROR), and assigning, at least in theory, revenue decreases to those classes that are over-earning relative to their CCOSS-estimated class returns. The class revenue responsibilities that are finally established are then used, in conjunction with each class's billing determinants, to determine rates. In summary, the revenue distribution process can be thought of as the initial step taken to establish rates.

Q. Does the revenue distribution process include any policy considerations?

A. Yes. Allocating the overall system-wide revenue deficiency entirely on a full cost of service basis could result in outcomes inconsistent with Commission policies, including situations leading to adverse rate impacts for certain under-earning classes. To avoid such a result, regulators often temper the revenue responsibilities assigned to various customer classes in order to meet a broad set of ratemaking policy goals.

Q. What are those broader ratemaking policy goals?

A. There are several generally accepted ratemaking principles used in utility regulation that include:

- Rates should be fair, just, and reasonable, and not unduly discriminatory.
- To the extent possible, gradualism should be used to protect customers from rate shock.
- Rate continuity should be maintained.
- Rates should be informed by costs, but class cost of service results need not be the only factor used in rate development.
- Rates should be understandable to customers.

Q. How are the above principles applied in developing an appropriate rate spread for a regulated utility?

A. Regulators often consider all, or many of the principles I mentioned above. However, any principle's relative weight can change depending upon the importance of certain policy goals. Rate design should strike a balance between policy goals and result in rates that are fair, just, and reasonable. There is no pre-set or universally accepted formula for developing rates and, as a result, judgment is necessary to formulate a rate design that meets these objectives.

Q. What factors has the commission historically relied upon in the determination of an appropriate rate spread?

A. The Commission has historically considered a multitude of factors, including the cost of service, fairness, perceptions of equity, economic conditions in the service territory, gradualism, and rate stability.[1] Out of all these factors, rate parity, i.e.

[1] *Wash. Utils. & Transp. Comm'n v. Avista Corp.*, Docket UE-200900, Final Order, ¶ 328 (Sept. 27, 2021).

the relationship between revenues and costs, seems to be most heavily relied upon within the Commission's review and determination of rate spread proposals.[2]

Q. Please explain the concept of a parity ratio.

A. The parity ratio refers to the relationship between a rate class's revenues and its costs. A parity ratio of 1.00 occurs in which a utility collects 100 percent of the revenue needed to cover the costs of serving the class. A parity ratio of 0.90, likewise, indicates that the utility collects 90 percent of the revenue needed to cover the costs of the customer class, and a parity ratio of 1.10 occurs when a utility collects 110 percent of the revenues required to serve the customer class.[3]

Q. What are acceptable parity ratios within the context of utility rate cases in Washington?

A. The Commission has previously provided the following guidance when applying the results of a CCOSS: "A COSS uses precise math to follow elaborate cost assignments. Commission practice considers the error or range of accuracy to be +/-0.05. In other words, COSS results within the range 0.95 to 1.05 are considered within the precision of the COSS."[4]

Q. Please explain how the Company proposes to distribute revenue requirements to each customer class.

A. As shown in Exhibit DED-3, the Company proposes to distribute its class revenue requirement increase to customer classes (excluding the special contracts class) on

[2] *Wash. Utils. & Transp. Comm'n v. Puget Sound Energy*, Dockets UE-190529 and UG-190530, Final Order, ¶ 516 (Jul. 8, 2020).
[3] *Wash. Utils. & Transp. Comm'n v. Pacific Power & Light Company*, Docket UE-152253, Order 12: Final Order, ¶¶ 225–229 (Sept. 1, 2016).
[4] *Id.* ¶ 225 fn.350.

an ad-hoc basis based on the relevant parity ratios shown in its CCOSS results. First, the Company proposes to increase residential rates by 125 percent of the system average increase of 24.3 percent which equates to a 30.4 percent increase.[5] Second, the Company proposes to increase rates for the distribution system transportation class by 140 percent of the system average increase which equates to 34 percent.[6] Third, the Company proposes to increase rates for the industrial, large volume, and interruptible classes by the exact amount prescribed in the Company's CCOSS results to bring their respective revenue-to-cost ratios to 1.00 or parity.[7] Finally, the Company proposes the lowest increase of 8.9 percent for the general commercial class based on the Company's CCOSS finding that the class was above parity at current and proposed rates.[8]

Q. Do you agree with the Company's revenue distribution proposal?

A. No. The Company's proposal would increase rates for specific customer classes by up to 1.4 times the system average rate increase, which is inconsistent with the concept of rate gradualism.

Q. What is your recommendation regarding the Company's proposed revenue distribution?

A. I recommend the Commission adopt a more reasonable approach by distributing revenues on an equalized basis across customer classes. My recommendation would set the base revenue increase for all customer classes (with the exception of

[5] Direct Testimony of Ronald J. Amen, Exh RJA-1T at 46:14–16.
[6] *Id.* at 46:19–20.
[7] *Id.* at 46:16–19.
[8] *Id.* at 46:20–47:5.

special contracts) equal to 24.92 percent, compared to the Company's proposed maximum rate increase of 34.01 percent.

Q. If the Commission decides not to support my recommendation, what limitations should be considered to ensure rate gradualism?

A. If the Commission does not support an equal increase across customer classes, I recommend the Commission establish an upper limit on the base rate increase allocated to any single customer class. More specifically, I recommend this upper limit be set at 1.15 times the overall system average increase. Using the Company's proposed system average increase in margin revenues of 24.30 percent, this upper limit would reduce the maximum total base revenue increase of any single rate class to 27.94 percent, compared to the Company's proposed maximum rate increase of 34.01 percent.

Q. Have you prepared a summary of the effects of your proposed equal revenue distribution?

A. Yes. Exhibit DED-4 presents an illustrative summary of the effects of my proposed revenue distribution under the Company's proposed system average margin revenue increase of 24.30 percent. My proposed revenue distribution would increase base rates for the residential class by 24.92 percent, compared to the Company's proposal which would increase such rates by 30.37 percent during the test year period.

Q. Have you prepared a summary of the effects your proposed upper limit would have on revenue distribution?

A. Yes. Exhibit DED-5 presents an illustrative summary of the effects my proposed upper limit would have on revenue distribution under the Company's proposed system average margin revenue increase of 24.30 percent. The proposed upper limit on revenue distribution would increase base rates for the residential class by 27.94 percent, compared to the Company's proposal which would increase such rates by 30.37 percent during the test year period. If the Commission approves a lower revenue requirement increase, the upper limit would still be set at 1.15 times the overall system average increase. In such a case, the base rate increase for the residential class would be less than 27.94 percent.

IV. RATE DESIGN

A. Rate Design Objectives

Q. How are natural gas rates typically structured?

A. Natural gas utility rates are typically comprised of three elements. The first component is the fixed monthly customer charge, or sometimes referred to as the basic service charge. The second is the energy-based component that is a volumetric rate applied toward a customer's monthly energy usage during a billing period, often measured in terms of therms or dekatherms (Dth). Finally, demand rates are surcharges that are assessed based upon a customer's maximum usage during a billing period. Some smaller use customer classes, such as residential and small general services classes, are not demand-metered and thus, only face customer and energy charges in what is commonly called a "two-part tariff." Larger, demand metered, customers face a "three-part tariff" which includes a customer, volumetric, and demand charge. A "multi-part tariff" is a

term often used to generalize a set of rates that have various combinations of both fixed (customer charge) and variable charges (energy and/or demand charges).

Q. How should policy balance cost assignments between fixed customer charges and volumetric rates?

A. Modern utility pricing theory is primarily concerned with the development of optimal tariff design, which over the years has become dominated by the two-part and three-part tariff form that is sometimes referred to more technically as a non-linear (or non-uniform) pricing approach. Once a class revenue requirement is established, the goal for regulators should be one that sets the most appropriate rates based upon various efficiency and equity considerations. Balancing the weight of how costs are recovered between fixed rates, variable rates, block rates, and seasonal rates are all integrated parts of that process.

Q. What is the appropriate role of costs in setting rates for a multi-part tariff?

A. Costs can be instructive in establishing a baseline upon which prices may be set, but costs do not need to serve as the sole or exclusive basis for rates in order for them to be set optimally (i.e., fixed charges do not need to strictly equal fixed costs, variable rates need not strictly equal variable costs). Unfortunately, the "fixed charge-equals-fixed costs" philosophy gets repeated so often that it can often drown out meaningful discussions about other equally important considerations in setting rates in imperfect markets. In fact, appropriate rate setting in the context of a multipart tariff typically has more to do with consumer demand than it does with cost in a natural gas context given the capital-intensive nature of public utilities.

Q. Does the rate design process have any goals?

A. Yes. The development of utility rates, or "rate design" often has a few goals. For example, rates are sometimes designed to send certain price signals to consumers in order to influence their usage decisions.[9] Sometimes, rate design becomes a balancing act since rates must be designed to be both supply-eliciting (i.e., assist utilities in financing of capital investments) and demand-inhibiting (i.e., inhibit the growth in demand that generates the need for capital investments).[10]

B. Basic Service Charge

Q. Please provide an overview of the Company's basic service charge proposal.

A. The Company proposes to increase monthly basic service charges by up to 100 percent in 2025, with no class (except for special contracts) being given less than a 54 percent increase.[11] This includes a residential service schedule with a basic service charge increase of 100 percent in 2025, and an additional 15 percent increase in 2026.[12] This results in a cumulative proposed increase in basic charge of $6.50 per month, from the current $5.00 to a proposed $11.50 per month.[13] Exhibit DED-6 shows the current and proposed basic service charges by customer class.

[9] James Bonbright *et. al., Principles of Public Utility Rates,* Pub. Utils. R., Inc., Second Edition, at 96–97.
[10] *Id.*
[11] Amen, Exh RJA-1T at 51, Table 8.
[12] *Id.*
[13] *Id.*

Q. What is the basis of the Company's proposed residential basic service charge increase?

A. The Company claims its proposed increase in residential basic service charge will better reflect the underlying costs of providing basic customer service.[14]

Q. Have you prepared an analysis of costs commonly associated with basic service charges?

A. Yes. Exhibit DED-7 presents an analysis of current basic service charges with the Company's customer-related expenses. "Customer-related" expense accounts for natural gas utilities are those typically allocated on the basis of customers and can include: removing and setting meters; maintenance of meters; meter reading expenses; customer records and collections; customer billing and account; and customer service and information expenses. These costs can also include the depreciation expense associated with service and meter plant accounts, as well as the carrying charges (at the Company's requested rate of return) on these plant accounts.

Q. What are your findings regarding the Company's customer-related costs?

A. Exhibit DED-7 shows that the Company's proposed basic service charges are in excess of estimated customer-related costs for all customer classes. This includes the residential service class, which is estimated to have customer-related costs of $6.96 per month, compared to the Company's proposed $10.00 per month basic service charge in 2025 and $11.50 in 2026.

[14] Amen, Exh RJA-1T at 47:20–48:2.

Q. Are higher basic service charges consistent with the promotion of energy efficiency and conservation?

A. No. The Company's proposal is inconsistent with the promotion of energy efficiency and conservation in Washington for the simple reason that it places more costs into the fixed component of rates than in the variable component. This reduces economic incentives for ratepayers to control monthly utility bills through energy efficiency and conservation efforts, because only the variable component of bills is avoidable.

Q. Have other commissions recognized the detrimental effect increased fixed charges have on energy efficiency?

A. Yes. In rejecting a request by Baltimore Gas and Electric to increase customer charges as part of a larger rate design proposal, the Maryland Public Service Commission (MPSC) recognized the need to allow customers the opportunity to control their monthly bills by reducing energy usage.

> Even though this issue was virtually uncontested by the parties, we find we must reject Staff's proposal to increase the fixed customer charge from $7.50 to $8.36. Based on the reasoning that ratepayers should be offered the opportunity to control their monthly bills to some degree by controlling their energy usage, we instead adopt the Company's proposal to achieve the entire revenue requirement increase through volumetric and demand charges. This approach also is consistent with and supports our EmPOWER Maryland goals.[15]

[15] Maryland Public Service Commission Case No. 9299*, In re of Baltimore Gas and Electric Company for Adjustment in its Electric and Gas Base Rates*, Order No. 85374 at 99 (Md. Pub. Serv. Comm'n, Feb. 22, 2013).

Q. Is the Maryland Commission alone in its belief that high fixed charges discourage efficient use of energy?

A. No. A research document presented for consideration by the membership of the National Association of Regulatory Utility Commissioners (NARUC) lists Straight-Fixed Variable (SFV) rate design as an alternative to delink utility revenue from sales. An SFV attaches all fixed-related costs to fixed charges while relegating only variable charges to volumetric rates. The NARUC research noted this type of rate design was problematic because of its effects on customer incentives to conserve energy:

> **Straight-Fixed Variable Rate Design.** This mechanism eliminates all variable distribution charges and costs are recovered through a fixed delivery services charge or an increase in the fixed customer charge alone. With this approach, it is assumed that a utility's revenues would be unaffected by changes in sales levels if all its overhead or fixed costs are recovered in the fixed portion of customers' bills. This approach has been criticized for having the unintended effect of reducing customers' incentive to use less electricity or gas by eliminating their volumetric charges and billing a fixed monthly rate, regardless of how much customers consume.[16]

Q. Has any national public policy analysis noted the efficiency disincentives associated with SFV-type rate designs?

A. Yes. The National Action Plan for Energy Efficiency (NAPEE), a joint venture of the U.S. Department of Energy and U.S. Environmental Protection Agency, published a whitepaper on various rate design effects on encouraging energy efficient behaviors. The NAPEE postulated that SFV had a detrimental effect on

[16] NACUA, *Decoupling for Electric & Gas Utilities: Frequently Asked Questions (FAQ)* (Sept. 2007), Grants & Research Department, Nat'l Assoc of Reg Util Comm'rs, at 5. (emphasis added), available at https://www.maine.gov/mpuc/legislative/archive/2006legislation/DecouplingRpt-AttachC.pdf.

economic signals to encourage customers to change energy usage behavior and investments in energy efficiency devices, and specifically noted that such disincentives persist even when applied to individual components of a customer's utility bill, such as SFV for strictly distribution services:

> Because [SFV] tends to shift costs out of volumetric charges, it tends to reduce customers' efficiency incentive, because the marginal price of additional consumption is reduced. While SFV rates are being considered to better reflect the utility's costs behind the rate, these rates do not encourage customers to change energy usage behavior or invest in efficiency technologies. Such customer disincentives persist even when SFV rates are applied to individual components of the bill, such as charges for distribution service.[17]

Q. Have you prepared typical bill analyses associated with the Company's rate design proposals?

A. Yes. Exhibit DED-8 illustrates bill changes for residential customers of varying monthly therm usage levels. This analysis shows that low-use residential customers would see their bill increase by 50.43 percent in 2025, or by 60.20 percent by 2026. This compares to the proposed average rate increase for all residential customers of 45.03 percent in 2025, or 52.61 percent in 2026.

Q. Are there general concerns related to the Company's proposal for significant increases in its monthly basic service charges?

A. Yes. One of the reasons for approving higher basic service charges is to provide utilities with a level of revenue certainty regardless of monthly customer usage, thus partially immunizing a utility from potentially negative impacts on the

[17] National Action Plan for Energy Efficiency, *Customer Incentives for Energy Efficiency Through Electric and Natural Gas Rate Design* at 13–14, prepared by William Prindle, ICF International, Inc. (Sept. 2009) (emphasis added), available at https://www.epa.gov/sites/production/files/2015-08/documents/rate_design.pdf.

recovery of fixed costs from falling customer usage. However, the Commission should recognize that the Company's operational units have decoupling mechanisms in place which allow the Company to recover revenues associated with decreases in customer usage. The proposed increases in monthly basic service charges would be duplicative of current policy in Washington which has permitted decoupling for the Company's operational units.

C. Basic Service Charge Recommendations

Q. What is your recommendation regarding the Company's basic service charge proposals?

A. I recommend that the Commission reject the Company's proposed increase in basic service charges (which includes residential customers) for a number of reasons. First, the Company's proposed $10.00 per month residential basic service charge in 2025 would be 44 percent higher than the Company's customer-related costs. Second, the Company's proposal would negatively impact the public policy goals of energy efficiency and would burden low-use customers with a greater than average portion of any proposed increase in the case. Finally, the Company's proposed increase in basic service charges is unnecessary to provide revenue certainty as CNGC has a decoupling mechanism in place that allows the utility to reconcile rates for changes in customer usage. Instead, I recommend the basic service charge for each class be increased no more than the percentage rate increase in revenue requirement for that class.

V. CONCLUSIONS AND RECOMMENDATIONS

Q. What is your recommendation regarding the Company's proposed revenue distribution?

A. I recommend the Commission adopt a more reasonable approach by distributing revenues on an equalized basis across customer classes. My recommendation would set the base revenue increase for all customer classes (with the exception of special contracts) equal to 24.92 percent, compared to the Company's proposed maximum rate increase of 34.01 percent.

Q. If the Commission decides not to support my recommendation, what limitations should be considered to ensure rate gradualism?

A. If the Commission does not support an equal increase across customer classes, I recommend the Commission establish an upper limit on the base rate increase allocated to any single customer class. More specifically, I recommend this upper limit be set at 1.15 times the overall system average increase. Using the Company's proposed system average increase in margin revenues of 24.30 percent, this upper limit would reduce the maximum total base revenue increase of any single rate class to 27.94 percent, compared to the Company's proposed maximum rate increase of 34.01 percent.

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Q. Does this conclude your testimony?

A. Yes.