BEFORE THE

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

TREE TOP, INC., a Washington Corporation	)	DOCKET UG-210745
Complainant,	)	
v.	)	
CASCADE NATURAL GAS CORPORATION, a Washington Corporation	)	
Respondent.	)	

REDACTED

DIRECT TESTIMONY OF BRADLEY G. MULLINS

ON BEHALF OF

TREE TOP, INC.

April 8, 2022

Exhibit BGM-1T
Dockets UG-210745
Witness: Bradley G. Mullins

TABLE OF CONTENTS TO THE DIRECT TESTIMONY OF BRADLEY G. MULLINS

EXHIBIT LIST

I. INTRODUCTION AND SUMMARY

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Bradley G. Mullins, and my business address is Vihiluoto 15, Kemple Finland FI-90440.

Q. PLEASE STATE YOUR OCCUPATION AND ON WHOSE BEHALF YOU ARE TESTIFYING.

A. I am an independent energy and utilities consultant representing large energy consumers before state regulatory commissions, primarily in the Western United States. I am appearing in this matter on behalf of Tree Top, Inc. ("Tree Top"), a Schedule 663 Transportation Service customer of Cascade Natural Gas Corporation ("Cascade").

Q. PLEASE SUMMARIZE YOUR EDUCATION AND WORK EXPERIENCE.

A. I have a Master of Accounting degree from the University of Utah. After obtaining my master's degree, I worked at Deloitte in San Jose, California, where I specialized in performing research and development tax credit studies. I later worked at PacifiCorp as an analyst involved in power cost forecasting. I currently provide services to utility customers on matters such as revenue requirement, power cost forecasting, and rate spread and design. I have sponsored expert testimony in regulatory jurisdictions around the United States, including before the Washington Utilities and Transportation Commission (the "Commission"). A list of cases where I have submitted testimony can be found in Mullins, Exh. BGM-2.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. In my testimony, I evaluate the reasonableness of $198,844.87 in overentitlement charges that Cascade assessed to Tree Top on March 16, 2021 in connection with the Stage II

Overrun Entitlement Period from February 12, 2021 through February 16, 2021 (the "Overrun Entitlement").[1] These charges were paid by Tree Top on June 24, 2021 under protest, and on September 24, 2021, Tree Top initiated this complaint requesting that the Commission require Cascade to refund the unreasonable portion of those charges, asserting, among other things, that the use of the dysfunctional South of Green River NW ("Green River") market in the calculation of Overrun Entitlement charges was not fair, just, or reasonable.

Q. PLEASE SUMMARIZE YOUR TESTIMONY

A. I recommend that the Commission find that Cascade's use of the Green River market in calculating Overrun Entitlement charges for Tree Top was not fair, just, or reasonable in violation of RCW 80.28.020, and require Cascade to refund unreasonable charges of $196,663.96 to Tree Top, inclusive of interest. During the Overrun Entitlement, there was market dysfunction on the southern end of the Northwest Pipeline system leading to unprecedented and potentially manipulated market prices, including pricing of $[redacted]/dth reported at the Green River market. Under the facts presented here, assessing Overrun Entitlement charges based on pricing from a dysfunctional market is not reasonable.

This is further justified because Tree Top's imbalance during the Overrun Entitlement did not impose any additional costs on Cascade or its core customers. In fact, Tree Top <u>and</u> its marketing agent, Cost Management Services ("CMS"), both

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[1] *See* Mullins, Exh. BGM-3 (Copies of Overrun Entitlement Invoices to Tree Top from Cascade).

delivered more gas than used during the Overrun Entitlement providing a benefit to Cascade and its core customers. Cascade did not purchase gas from the Green River market, nor any other market, to serve Tree Top's individual account imbalances during the Overrun Entitlement.[2] Nor did Tree Top's account imbalances result in the imposition of any additional charges from Northwest Pipeline to Cascade.[3]

Given the unique circumstances of this event, I recommend that the Overrun Entitlement charge assessed to Tree Top be recalculated based on 150% of Sumas market prices. I also recommend that Tree Top be allowed to net the nominations and usage from its four accounts when calculating the charge. The impact of these recommendations has been calculated in **Confidential Table 1**, below.

2 Mullins, Exh. BGM-4R at 4 (Cascade's Resp. to Tree Top Data Request ("DR") 4).

3 Mullins, Exh. BGM-4R at 29 (Cascade's Resp. to Tree Top DR 37).

Confidential Table 1

Proposed Overrun Entitlement Charges to Tree Top

[redacted]

II. BACKGROUND

Q. PLEASE PROVIDE AN OVERVIEW OF TREE TOP.

A. Tree Top is a food processing manufacturer with locations in Washington, Oregon, and California. Tree Top's headquarters are located in Selah, Washington. The company specializes in the production of apple juice, apple sauce, apple ingredients, and other fresh fruit juice concentrates, such as apple and pear. Tree Top is an important link in the supply chain for the arboriculture industry in central Washington and employs approximately 600 individuals in Washington State.

Q. WHAT PROCESSING FACILITIES DOES TREE TOP OPERATE IN CASCADE'S SERVICE AREA?

A. In addition to its corporate headquarters, Tree Top operates four different processing facilities in Cascade's service territory. First, Tree Top's Main Plant is located in Selah, Washington and produces apple juice and sauce products. Second, the Tree Top Ross Plant is also located in Selah, Washington and produces evaporated and drum dried apple ingredients. Third, the Wenatchee Plant, located in Wenatchee Washington, produces chilled and frozen apple ingredients. Finally, the Prosser Plant, located in Prosser Washington, produces a variety of juice concentrates. All four of these processing facilities receive Schedule 663 transportation services from Cascade and purchase gas delivered through Tree Top's marketing agent, CMS, from Northwest Pipeline.

Q. PLEASE PROVIDE AN OVERVIEW OF THE GAS REQUIREMENTS OF TREE TOP'S FACILITIES.

A. Unlike some industrial facilities which operate at a consistent level every day, the daily gas load at the Tree Top facilities is variable day-to-day. The load depends on the season, the type of equipment being operated, as well as the timing of fruit shipments that are received at any given point in time. When a shipment of fruit is delivered to a plant, it must be processed promptly to avoid spoiling the product. Further, the Tree Top facilities have a variety of different pieces of equipment, which may be operating at different times, depending on the flow of the product through the facility. For example, an industrial dryer may be operating on one day, and packaging equipment operating on another day. This variability, and the associated challenge in forecasting the gas load requirements of the Tree Top facilities perfectly, may be observed in **Confidential Figure 1**, below.

Confidential Figure 1
<u>Tree Top Daily Dekatherm Gas Requirements February 2021</u>

[redacted]

Q. HOW ARE IMBALANCES MANAGED UNDER NORMAL CIRCUMSTANCES?

A. Tree Top consistently monitors its production levels and periodically revises its gas usage estimates for its marketing agent to use to procure and deliver gas to Cascade's system. These usage *estimates* are, by definition, never perfect, and under normal circumstances, variation between the gas delivered to Cascade by Tree Top's marketer and Tree Top's actual gas usage are managed through the imbalance process provided in Section 15 of the General Terms and Conditions in the Northwest Pipeline tariff,[4] a process which Cascade passes through to its transportation customers in Schedule 663. Under Schedule

4 *See* Mullins, Exh. BGM-5 at 10-19.

663, transportation customers are required to nominate or declare the amount of gas they will be delivering to Cascade's system through Northwest Pipeline on a day-ahead basis. The daily difference between the gas nominated and the actual gas consumed is considered an imbalance, which accumulates on a rolling, daily basis. If an imbalance accumulates over any given period, the customer must purchase more, or less, gas in a later period to eliminate the imbalance. If a customer has an imbalance exceeding 5% of the customer's monthly requirements, however, the customer has 45 non-entitlement days to eliminate the imbalance, or else pay a $10.00/MMBtu charge for the amount exceeding the threshold.

Q. DOES CASCADE SUPPLY THE GAS FOR ITS TRANSPORTATION CUSTOMERS' IMBALANCES?

A. No. Cascade does not independently procure gas to serve its transportation customers' gas requirements, including the imbalances for those customers. Imbalances for transportation customers are served through Northwest Pipeline.[5] Under the Northwest Pipeline tariff, Cascade, as the Receiving Party, is responsible for the net imbalance of all gas delivered to it from Northwest Pipeline, including imbalance attributable to its transportation customers.[6] Cascade, however, passes through the imbalance obligations from Northwest Pipeline directly to its transportation customers through the Schedule 663 imbalance procedures, which mirror the imbalance procedures in the Northwest Pipeline tariff.

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5 *Id.*
6 *Id.* at 10.

Q. WHAT IS AN ENTITLEMENT PERIOD?

A. An entitlement period occurs in certain operating conditions, as defined in Section 14.6 of the General Terms and Conditions of the Northwest Pipeline tariff, and is an exception to the normal imbalance procedure established by Northwest Pipeline.[7] In an entitlement period, a Receiving Party is required balance its gas requirements on a daily basis, rather than relying on the rolling imbalance procedure. In the case of an Overrun Entitlement, the physical quantity of gas delivered must be equal to, or less than, the total quantity of gas which the customer had nominated for that particular day, plus a stated Entitlement Percentage. For a Stage II Overrun Entitlement, such as the one at issue in this proceeding, the Entitlement Percentage is 8%, meaning gas usage exceeding 108% of the gas volumes nominated would be subject to an overrun entitlement charge. In the case of an Underrun Entitlement, the physical quantity of gas used by a customer must be more than, or equal to, the total quantity of gas which the customer had nominated for that day.

Q. WHAT RATES ARE ASSESSED FOR IMBALANCES DURING AN ENTITLEMENT PERIOD?

A. Similar to the imbalance procedure, Cascade as the Receiving Party is responsible for managing entitlements from Northwest Pipeline in an entitlement period, including the entitlements attributable to its transportation customers. In the case of an Overrun Entitlement, if Cascade's daily imbalance results in exceeding the authorized entitlement amount, Cascade will incur an entitlement charge from Northwest Pipeline (per dth) equal to "the greater of $10 or 150 percent of the highest midpoint price at NW Wyo.

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7 *Id.* at 8-9.

Pool, NW s. of Green River, Stanfield Ore., NW Can. Bdr. (Sumas), Kern River Opal, or El Paso Bondad as reflected in the Daily Price Survey published in "Gas Daily."[8] In the case of an Underrun Entitlement, if Cascade's daily imbalance results in it using less gas than nominated, the underrun charge is $10.00/dth.[9]

Q. HOW DOES CASCADE PASS THE ENTITLEMENT CHARGES ON TO ITS TRANSPORTATION CUSTOMERS?

A. While the obligation to pay Northwest Pipeline entitlement charges lies with Cascade, Schedule 663 contains language mirroring the entitlement charges imposed by Northwest Pipeline. As discuss below, however, applying this identical language to individual transportation customer accounts is not necessarily appropriate, as doing so may result the situation where an entitlement charge is assessed to an individual account, even though Cascade was never required to pay any entitlement charges to Northwest Pipeline with respect to that transportation customer's daily imbalance.

Q. UNDER WHAT CONDITIONS IS AN ENTITLEMENT PERIOD DECLARED?

A. Entitlement periods are declared by interstate pipelines based on operational conditions resulting from a system constraint, requiring customers to monitor their gas nominations more closely. The Northwest Pipeline tariff, for example, generally defines an entitlement period as circumstances when underruns or overruns jeopardize system integrity.[10] For purposes of Cascade's system, Schedule 663 states that "[t]he Company may declare an Entitlement on any day the Company, in its sole discretion, reasonably

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8 *Id.* at 3

9 *Id.* at 2

10 *Id.* at 8.

determines a critical operational condition warrants the need." As a practical matter, however, the reliable operation of Cascade's individual system is rarely impaired. Rather, it's the pipeline conditions that result in the declaration of an entitlement period, and which led to the Overrun Entitlement at issue in this proceeding. In response to Tree Top Data Request 27, Cascade provided all instances when an entitlement period has been declared since 2017, all of which were declared by the interstate pipeline.[11]

Q. IS AN OVERRUN ENTITLEMENT PERIOD THE SAME AS A CURTAILMENT?

A. No. An overrun entitlement period has three levels of severity, each of which represent less severe operating conditions relative to a curtailment. The Level II Overrun Entitlement at issue in this case, for example, is itself not the most severe level of overrun entitlements. In contrast, a curtailment is an order from the utility or pipeline for a customer to physically stop using gas, or to reduce the amount of gas used. Curtailment orders are issued in the most severe or even emergency operating conditions. In contrast, the declaration of an overrun or underrun entitlement means that customers need to balance their usage and nominations on a daily basis instead of monthly. For Schedule 663 transportation customers, a curtailment order is issued under Cascade Rule 17, requiring a nonconforming customer to pay a rate for unauthorized usage that is calculated in the same manner as overrun entitlement charges. Cascade, therefore, treats curtailments and overrun entitlements in the same fashion even though overrun entitlements are less severe events. In contrast, Puget Sound Energy assesses

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11 Mullins, Exh. BGM-4 at 21-22 (Cascade's Resp. to Tree Top DR 27).

unauthorized usage charges for curtailments at $50/dth an hour for the first two hours and $100/dth after the first two hours, recognizing that curtailments are more serious than entitlements.[12] In other words, violations of the most serve type of operating condition is $100/dth for Puget Sound Energy. Similarly, NW Natural and Avista have unauthorized usage charges of $100/dth for unauthorized usage during a curtailment order.[13] Comparing the $100/dth charge for violating the most severe operating condition to the $[redacted]/dth charge Cascade assessed to Tree Top for the Overrun Entitlement shows the unreasonableness of Cascade's charges.

III. THE OVERRUN ENTITLEMENT

Q. WHEN DID NORTHWEST PIPELINE ISSUE THE OVERRUN ENTITLEMENT?

A. In early February 2021, Northwest Pipeline began communicating to customers the likelihood of an entitlement period over the Presidents' Day weekend. In response to forecast weather conditions and supply disruptions in the Permian Basin, on Wednesday February 10, 2021, Northwest Pipeline issued a Level II (*i.e*. 108%) Overrun Entitlement for all points of receipt north of the Kemmerer Compressor station beginning Friday, February 12, 2021 through Tuesday February 16, 2021.[14] Shortly thereafter, Cascade followed suit and declared an Overrun Entitlement for its transportation customers pursuant to Schedule 663 of its tariff.

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12 Puget Sound Energy, Rule No. 23.

13 Northwest Natural Gas Company, Schedule C, Miscellaneous charges; Avista Corporation, WN U-19, Substitute First Revision Sheet 182.

14 *See* Mullins, Exh. BGM-4 at 15-16 (Cascade Resp. to Tree Top DR 21).

Q. WAS TREE TOP AWARE OF THE OVERRUN ENTITLEMENT?

A. Yes. Prior to the declaration, Cascade had communicated to Tree Top's market agent, CMS, the likelihood of an Overrun Entitlement over the Presidents' Day weekend.[15] Accordingly, on Monday February 8, 2021, CMS requested updated usage estimates from Tree Top for the weekend, in order to procure additional gas supplies for the Overrun Entitlement period if necessary. Following the formal declaration of the Overrun Entitlement by Cascade, each of Tree Top's facilities provided updated usage estimates, or confirmed their existing estimates based on the production schedule available at that time. CMS subsequently procured gas for Tree Top and its other customers and modified Tree Top's nomination schedules in accordance with the revised gas procurement.

Q. DOES CMS PURCHASE GAS SOLELY TREE TOP?

A. No. A marketing agent, such as CMS, is typically responsible for procuring gas supplies for a portfolio of customers for multiple utilities in multiple jurisdictions. For example, CMS had approximately [redacted] different customer accounts on Cascade's system in 2021[16] and has many other customer accounts on other utilities, all of whom were dealing with the same Overrun Entitlement declaration from Northwest Pipeline. With respect to its Cascade customers, CMS purchases gas for its customers collectively based on the estimates of the individual customers, and then inputs specific customer nominations into Cascade's gas accounting system to attribute the purchased gas to individual customers. The fact that CMS purchases gas for a portfolio of customers creates an inherent

15 *Id.*

16 *Id.* at 1-3 (Cascade's Resp. to Tree Top DRs 1-3).

challenge in Overrun Entitlement conditions. As discussed below, even though, on every day of the Overrun Entitlement, CMS delivered significantly <u>more</u> gas to Cascade's system than its portfolio of customers used, expensive Overrun Entitlement charges were applied to individual customer accounts based on the way that those supplies had been allocated in Cascade's gas accounting system.

Q. HOW DID THE PRESIDENTS DAY WEEKEND IMPACT TREE TOP'S ABILITY TO PROCURE GAS SUPPLIES?

A. The fact that the Overrun Entitlement occurred over Presidents Day weekend was a complicating factor in this situation. The typical nomination deadline to purchase day ahead gas for a transportation customer is 9:00 AM PT on the day before gas flows. On a weekend, however, the deadline is Friday at 9:00 AM PT for the subsequent three days: Saturday, Sunday, and Monday, and in the case of a holiday weekend, the deadline is Friday at 9:00 AM PT for the subsequent four days: Saturday, Sunday, Monday, and Tuesday. Thus, all day-ahead gas transactions for February 13, 2021 through February 16, 2021 had to be completed by 9:00 AM on Friday February 12, 2021. Between mid-day Wednesday February 10, 2021, and Friday morning February 12, 2021, there was limited time to procure gas supplies for the Entitlement Period for the long weekend.

Q. ON WHAT SPECIFIC DAYS DID TREE TOP EXCEED THEIR ENTITLEMENT?

A. Nearly all of Tree Top's overruns occurred on Monday February 15, 2021, and Tuesday February 16, 2021, the last two days of the long, holiday nomination cycle. **Confidential Table 2**, below, details Tree Top's overrun entitlement and their corresponding usage for each facility and each day of the Overrun Entitlement period.

Confidential Table 2
Tree Top Entitlement Overruns February 2021 (dth)

[redacted]

Several facts can be observed from **Confidential Table 2**, above. Primarily, while Tree Top did exceed entitlement thresholds at certain plants and certain days, Tree

Top used [redacted] dth <u>less</u> than it supplied during the Entitlement Period[17] and [redacted] dth <u>less</u> than its authorized Level II, 108% entitlement amount. Further, it can also be observed that the overruns were limited to specific plants, specifically the Prosser, Wenatchee, and Ross Plants. In contrast, the Selah plant operated at significantly less than its entitlement threshold for each day during the Overrun Entitlement. Because Overrun Entitlement charges were calculated on an account-by-account basis, Tree Top received no credit for those underruns. Finally, while overruns occurred primarily on Monday and Tuesday, significant underruns occurred on Friday, Saturday, and Sunday.

Q. WHY DID TREE TOP EXCEED ITS ENTITLEMENT ON MONDAY AND TUESDAY?

A. Despite its best intentions, Tree Top was unable to perfectly forecast its gas requirements during the Overrun Entitlement over the holiday weekend. As noted in **Confidential Figure 1**, above, perfectly nominating Tree Top's gas requirements is challenging because they vary day-to-day, depending on the season, the timing of fruit shipments, and the type of equipment being operated. Over the long weekend, operational circumstances resulted in some of Tree Top's originally forecasted production to be shifted from Saturday and Sunday to Monday and Tuesday, particularly at the Prosser and Wenatchee facilities. This can be noted in **Confidential Table 2**, above. Further, cold weather caused higher than expected heating loads when production resumed on Monday and Tuesday, leading to loads that were higher than anticipated.

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[17] Calculated in **Confidential Table 2** as the difference between the [redacted] dth nominated on row 17 and the [redacted] dth used on row 19.

IV. REASONABLENESS OF CHARGES

Q. WHAT CHARGES DID CASCADE ASSESS TO TREE TOP WITH RESPECT TO THE OVERRUN ENTITLEMENT?

A. Notwithstanding the fact that Tree Top delivered more gas to Cascade than it used during the Overrun Entitlement, Cascade assessed overrun entitlement charges to Tree Top in the amount of $198,844.87. To calculate the charge, Cascade used the Northwest Pipeline overrun entitlement rate formula equal to "150% of the highest midpoint price for the day at NW Wyoming Pool, NW south of Green River, Stanfield Oregon, NW Canadian Border (Sumas), or Kern River Opal supply pricing points." The highest published mid-point price on Friday February 12 was $[redacted]/dth at the Opal market, resulting in an entitlement rate of $[redacted]/Dth after the 150% adder. Over the holiday weekend, however, the price jumped significantly. The highest published mid-point price over the period Saturday February 13 through Tuesday February16 increased to $[redacted]/dth based on the Green River market, resulting in an entitlement rate of $[redacted]/dth after the 150% adder. Based on these rates, Cascade calculated Overrun Entitlement charges for Tree Top as detailed in **Confidential Table 3**, below.

Confidential Table 3
<u>Cascade Calculation of Overrun Entitlement Charges Assessed to Tree Top</u>

[redacted]

Q. WERE THESE OVERRUN ENTITLEMENT CHARGES REASONABLE?

A. No. The exorbitant prices that occurred on the southern end of Northwest Pipeline and other regions in the Southwest during the Overrun Entitlement were the result of a dysfunctional and potentially manipulated market, where available supply was inadequate relative to the inelastic demand during the cold weather events. The prices resulting from the dysfunctional market were not representative of any actual harm to Cascade or its other customers from Tree Top's gas usage. If viewed in the context of a punitive measure, Cascade's assessment amounted to a penalty that was 12.6 times the cost of acquiring a similar amount of gas at the Sumas market over the same period and 67 times Cascade's actual costs. While the language for calculating entitlement charges in Schedule 663, based on multiple points on the Northwest Pipeline system, might make sense for the entitlement charges that Northwest Pipeline applies, it is not necessarily a reasonable approach for Cascade to use the same formula for its transportation customers because Cascade was not assessed any overrun entitlement charges from Northwest Pipeline during the Overrun Entitlement period. Accordingly, Cascade's application of the Northwest Pipeline formula results in rates that are not fair, just or reasonable. In fact, transportation customers collectively supplied 12% more gas than they used during the Entitlement Period, substantially mitigating Cascade's entitlement obligations with Northwest Pipeline during the Overrun Entitlement. It is illogical for Cascade to pass through exorbitant Overrun Entitlement charges to individual transportation customers based on the Northwest Pipeline formula, when in part due to those transportation customers' efforts, Cascade avoided such charges from Northwest Pipeline.

a. The Excessive Market Prices Were the Result of a Dysfunctional Market

Q. PLEASE DESCRIBE THE WEATHER CONDITIONS THAT LED UP TO THE FEBRUARY OVERRUN ENTITLEMENT.

A. In mid-February 2021, a series of severe winter and ice storms produced widespread impacts across the United States, leaving millions without power and leading to the Texas 2021 Energy Crisis. The storm systems produced unprecedented cold in the Southwest, causing 215 deaths and over $23 billion in insurable losses.[18] The winter storm system also produced unprecedented impacts on energy markets, leading to widespread power outages and disruptions in natural gas supplies.

Q. HOW DID THESE EVENTS IMPACT NATURAL GAS SUPPLIES?

A. The failure to winterize certain natural gas production equipment during the winter storm events of February 2021 led to a dramatic decline in gas production from wells in Texas, Oklahoma, and throughout the region.[19] As early as February 3, 2021, it was evident that gas supplies on the southern end of Northwest Pipeline would be severely disrupted as a result of frozen gas wells, icy roads, power loss, high winds, and mechanical issues.[20] Gas production in Texas and Oklahoma is responsible for approximately 31% of the nation's natural gas production. As the cold weather began conditions deteriorated and eventually resulted in the failure of wells and pipeline infrastructure, which caused production from the region to decrease at a rapid pace. Water is used in the extraction of natural gas, and when the freezing temperatures arrived, many of the wells in the Permian

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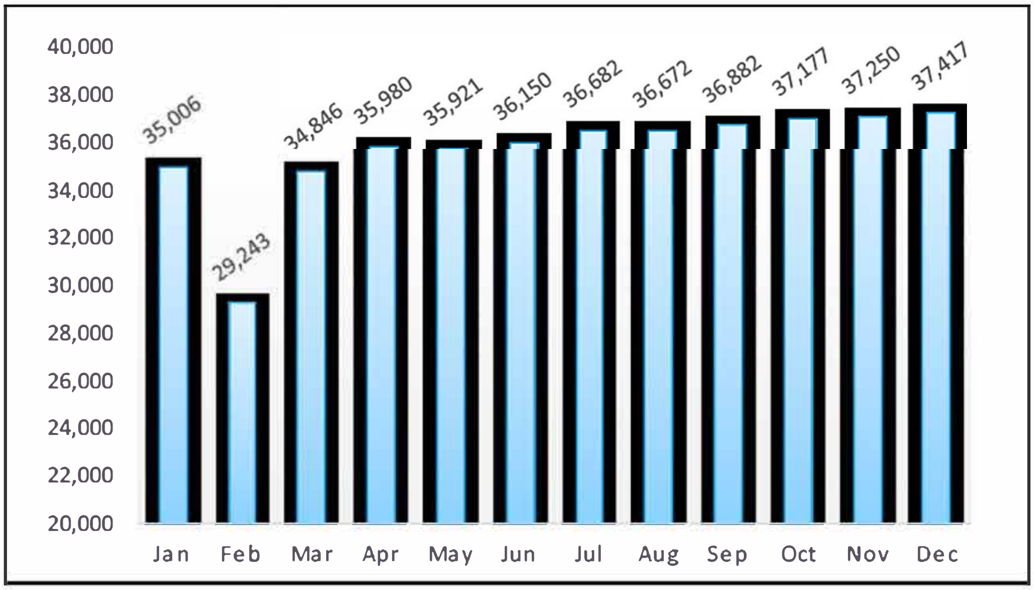
18 Mullins, Exh. BGM-6 at 4 (AON 2021 Global Catastrophe Report]

19 Mullins, Exh. BGM-6 at 1-2 (Bloomberg, Texas Natural Gas Output to Keep Dropping, Industry Group Warns (Feb. 3, 2021)).

20 *Id.*

basin became inoperable. This reduced gas production may be observed on a monthly basis in Figure 2, below, which is based on data from the Energy Information Administration ("EIA").

Figure 2
Texas and Oklahoma 2021 Natural Gas Production (MMBtu)
Source: EIA Monthly Crude Oil and Natural Gas Production Report



These figures show that on a monthly basis, natural gas production in Texas and Oklahoma was approximately 22% lower than the equivalent December 2021 output. These monthly figures, however, do not show the full magnitude of the lost daily gas production that occurred during the winter storm events of mid-February, which only occurred for a portion of the month. By some estimates, daily gas production in Texas declined to about 50% of normal levels over the Presidents' Day weekend.[21]

[21] Mullins, Exh. BGM-6 at 8 (Bloomberg, Gas Sellers Reaped $11 billion Windfall During Texas Freeze (July 9, 2021)).

Q. HOW DID THIS REDUCTION IN SUPPLY IMPACT NATURAL GAS MARKETS?

A. The severe and unanticipated reduction in supply occurred at a time when, due to the cold weather, system demand for natural gas was at its highest. This led to market failures in the Southwest, where supply was inadequate to satisfy demands. The result was astronomical market prices being paid by utilities in order to maintain supplies on their individual systems and avoid curtailments. On the other hand, those with access to gas supplies made excessive profits which led to accusations of market manipulation and "blatant unlawful price gouging."[22] The market impacts of these events may be observed in **Confidential Figure 3**, below.

Confidential Figure 3
Daily Natural Gas Market Prices $/dth
Source: Cascade's Resp. to Tree Top Data Request 24

[redacted]

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22 *Id.* at 10.

As can be seen in **Confidential Figure 3**, market prices were $[redacted]/dth at the southern end of Northwest Pipeline at the Green River market, with similar levels observed in the Rockies and Opal markets. Prices in the Northwest, however, were not impacted by the same magnitude. While prices did increase significantly in the Northwest—increasing to $[redacted]/dth and $[redacted]/dth at the Stanfield and Sumas markets, respectively—the extent of the market disruption that occurred in the Southwest was not experienced in the Northwest.

Q. WHY DID THE NORTHWEST NOT EXPERIENCE THE SAME DEGREE OF MARKET DISRUPTION AS THE SOUTHWEST?

A. The Northwest has access to a diverse supply of gas through two major pipelines and a robust storage infrastructure. Northwest Pipeline, for example, provides bi-directional flows of gas between the Canada border and southern Colorado. Access to gas from Canada on Northwest Pipeline occurs at the Washington border at the Sumas market hub, which is the interconnection point between Northwest Pipeline and Enbridge Pipeline systems. Further, the Northwest has access to gas supplies from Alberta on the Gas Transmission Northwest ("GTN") Pipeline, which runs from Kingsgate market hub located at the border near East Port, Idaho to the Malin market hub, located at the interconnection point with the Pacific Gas and Electric System. The Northwest Pipeline and the GTN pipelines interconnect in Stanfield, Oregon, which forms a central bilateral market hub for the region. Cascade's lateral system on Northwest Pipeline, for example, originates near the Stanfield market hub. Further, utilities and other gas suppliers in the Northwest also have access to the Jackson Prairie and Mist Storage systems. These factors mitigated the cascading impacts of the market dysfunction in the Southwest on customers in the Northwest.

Q. IS FERC INVESTIGATING THE MARKET ACTIVITIES THAT LED TO SUCH ANOMALOUS PRICES IN THE SOUTHWEST?

A. Yes. On February 22, 2021, the FERC Office of Enforcement announced that it was examining wholesale natural gas and electricity market activity during the unusual weather events that occurred in February 2021.[23] Such investigations, however, can take many years. A FERC investigation was recently concluded in 2017, for example, leading to a finding that Barclays had engaged in market manipulation with respect to electric market prices in 2007 and 2008, which resulted in large settlement payments being made to utilities such as PacifiCorp. Further, the investigations are undertaken in private, and even the fact that an investigation is underway is often not disclosed.

Q. IS IT REASONABLE FOR CASCADE TO ASSESS OVERRUN ENTITLEMENT CHARGES BASED ON PRICES IN A DYSFUNCTIONAL MARKET?

A. No. The excessive market prices that occurred in the Southwest during the Overrun Entitlement do not provide an accurate price signal, nor incentive, for transportation customers to improve the accuracy of their production forecasts. Even in the context of a punitive measure, such excessive charges are so astronomical relative to the cost of the underlying gas as to not be reasonable. Further, Tree Top's entitlement overrun did not impact Cascade's other customers, nor did it expose Cascade to the dysfunctional market.

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[23] Mullins, Exh. BGM-6 at 5.

In fact, Cascade confirmed that it did not engage in any daily gas transactions in the dysfunctional markets, including the Green River market, during that time frame.

b. The Northwest Pipeline Entitlement Rates Did Not Apply to Cascade

Q. WHY DOES NORTHWEST PIPELINE'S TARIFF APPLY A RATE THAT IS BASED ON THE HIGHEST PRICED MARKET HUB ON ITS SYSTEM?

A. Northwest Pipeline is responsible for balancing the entire interstate pipeline, from Canada to the Colorado-Oklahoma boarder. When supplies are out of balance, Northwest Pipeline must purchase and sell gas in the market to maintain gas flows. In connection with their transportation services, all customers, including Cascade's transportation customers, pay a commodity charge to cover Northwest Pipeline's cost of system balancing. In an overrun entitlement, when the system is constrained, Northwest Pipeline requires shippers to balance on a daily basis, in part to avoid excessive system balancing costs. Accordingly, the use of the highest market hub on Northwest Pipeline is reflective of the incremental costs of an overrun entitlement to Northwest Pipeline, since that represents the marginal cost of system balancing on such days.

Q. DOES THE SAME LOGIC APPLY TO CASCADE?

A. No. Cascade is not responsible for balancing the interstate pipeline, and in fact, benefits from Northwest Pipeline's balancing activities. Cascade does not purchase the balancing gas to serve the imbalances of its transportation customers. To the extent there is an imbalance between the gas nominated and the gas delivered to Cascade's system by a transportation customer, including entitlement overruns, it is Northwest Pipeline that covers the imbalance, not Cascade. Thus, the marginal cost of system balancing to

Northwest Pipeline has no bearing on the costs incurred by Cascade in connection with an overrun of one of its transportation customers because Cascade is not responsible for procuring the balancing gas to supply the overrun.

Q. HOW ARE CASCADE'S TRANSPORTATION CUSTOMERS HANDLED IN THE CALCULATION OF NORTHWEST PIPELINE ENTITLEMENT CHARGES?

A. Under Sections 14 and 15 of the General Terms and Conditions of Northwest Pipeline's tariff, entitlement charges are calculated for each "Receiving Party," defined as "the party who controls the facilities into which the gas is delivered for Shipper."[24] Thus, Cascade is the Receiving Party for the gas supplied by its transportation customers to Cascade's system. Therefore, the imbalances between the gas nominated and the gas used by transportation customers are considered towards Cascade's entitlement charges in entitlement periods. These charges, however, are not calculated on a contract-by-contract, or account-by-account, basis. They are assessed to Cascade as the Receiving Party as a whole. Since Cascade has a diverse set of customers, individual customers may consume more or less than their specific entitlement amount without causing Cascade to incur overrun entitlement charges, so long as, in aggregate, the gas delivered was less than the entitlement threshold amount. Northwest Pipeline does not, for example, assess overrun entitlement charges to Cascade's individual transportation customer accounts.

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24 Mullins, Exh. BGM-5 at 5.

Q. DID NORTHWEST PIPELINE ASSESS ANY OVERRUN ENTITLEMENT CHARGES TO CASCADE IN THE ENTITLEMENT PERIOD?

A. No. In response to Tree Top Data Request 37, Cascade confirmed that it was not assessed any Overrun Entitlement charges from any pipeline in February 2021.[25] Since Cascade was not assessed any Overrun Entitlement charges from Northwest Pipeline based upon the rate derived from Green River, applying the equivalent rate to Tree Top's individual customer accounts was not reasonable. As discussed below, the fact that transportation customers collectively delivered 33,753 dth more gas than consumed during the Entitlement Period contributed to Cascade avoiding any entitlement charges during the Overrun Entitlement.

c. The Charges Cascade Assessed Do Not Reflect Actual Costs or Actual Harm

Q. DOES CASCADE CONSIDER THE OVERRUN ENTITLEMENT CHARGES TO BE A PENALTY?

A. Yes. In its letter to Tree Top accompanying the entitlement charges, Cascade described the Overrun Entitlement charges as an "entitlement penalty," which is intended to be a "financial incentive[] to ensure [its] transportation class customers are bringing adequate supplies to cover their natural gas usage and not impose operational harm to Cascade's distribution system integrity."[26] In response to Tree Top Data Request 38, Cascade affirmed its view that the overrun entitlement was a punitive measure, stating the following:

> Cascade considers the overrun entitlement charges specified in Schedule 663 to be a penalty designed to encourage transportation customers to align their gas usage with the amounts they nominate. The penalty is designed to

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[25] Mullins, Exh. BGM-4R at 29.

[26] Mullins, Exh. BGM-3R at 4.

> be a disincentive to customers paying a penalty in lieu of securing adequate supply, to avoid harm to the integrity and reliability of Cascade's system and to protect Cascade's core customers from any financial consequences.[27]

Q. IS IT REASONABLE FOR CASCADE TO PENALIZE CUSTOMERS?

A. No. Under RCW 80.28.020, rates or charges of a gas company must be just, reasonable, and compensatory, an evaluation which is measured against the gas company's actual costs. Cascade is not permitted to assess punitive penalties, which are divorced from its actual cost or actual harm. While it is important to provide customers with appropriate incentives, those incentives cannot be arbitrary and necessarily must correspond to the actual cost of the thing being incented. It would be unreasonable, for example, for a utility to charge a late payment fee to a residential customer that is equal to 12.6 times the late payment amount, yet that is the equivalent of the Overrun Entitlement charges that Cascade has assessed to Tree Top. Thus, even if one were to consider the Overrun Entitlement charge to be a penalty, the charges Cascade applied to Tree Top are so high relative to the market cost of the underlying gas as to fall far outside of the realm of any reasonable punitive measure.

Q. DID CASCADE TRANSACT AT THE GREEN RIVER MARKET DURING THE ENTITLEMENT PERIOD?

A. No. As noted above, Cascade does not purchase gas to serve expected imbalances of its transportation customers, and even if it did, Cascade admitted that it did not trade in the Green River market during the entitlement period.[28] In fact, in response to Tree Top Data Request 4, Cascade stated that it did not have "<u>any</u> daily gas purchase and sales

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27 Mullins, Exh. BGM-4 at 30 (Cascade Resp. to Tree Top DR 38).

28 Cascade Amended Answer and Affirmative Defenses to Tree Top Inc.'s Complaint ¶ 15.

transactions with deliveries over the period February 1, 2021 through February 28, 2021."[29] According to Cascade's response to Tree Top Data Request 05, all of Cascade's purchases were made pursuant to the long-term agreements identified in attachment "Tree Top DR 5a (C)" provided in response to that requests.[30] In response to Tree Top Data Request 31, Cascade confirmed that it did not execute any transactions, other than the long-term transactions which were provided in the attachment Tree Top DR 5a (C).[31] It seems illogical, and raises questions of prudency, that Cascade did not make any transactions in day-ahead markets during February 2021.[32] Be that as it may, since Cascade stated that it did not enter into daily market transactions, at Green River or otherwise, in connection to entitlement overruns assessed to Tree Top's accounts, assessing a penalty based on prices at the Green River market was not reasonable.

Q. WHAT WAS THE COST TO CASCADE ASSOCIATED WITH TREE TOP'S ENTITLEMENT OVERRUN?

A. Since Cascade was not assessed an overrun entitlement charge, the only cost associated with Tree Top's imbalance during the Overrun Entitlement were the marginal pipeline imbalances applied to Cascade's account with the Northwest Pipeline. The gas itself could have been purchased over the Entitlement Period at the Sumas market at a rate of $[redacted]/dth on February 12, 2021 and $[redacted]/dth on February 13 – 16, 2021. Accordingly, the notional value of the 1,130 dth of overrun gas, upon which Cascade

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29 Mullins, Exh. BGM-4R at 4 (Cascade Resp. to Tree Top DR 4, emphasis added).

30 *Id.* at 5-7 (Cascade Resp. to Tree Top DR 5).

31 *Id.* at 25 (Cascade Resp. to Tree Top DR 31).

32 Tree Top is continuing to investigate whether daily transactions took place.

assessed its penalty, was just $15,729.88. This calculation is detailed in **Confidential Table 4**, below.

Confidential Table 4

Notional Value of Tree Top Entitlement Overruns

[redacted]

Thus, the Overrun Entitlement charges Cascade assessed were 12.6 times greater than the equivalent cost of the underlying gas purchased in the market on those same days. Further, since the gas used to serve Tree Top's overrun entitlement was not considered as an overrun entitlement by Northwest Pipeline, the associated volumes were applied towards Cascade's pipeline imbalance. Accordingly, the actual cost to Cascade for these volumes was significantly less than the market cost of gas at that time. Cascade's pipeline imbalance would have otherwise been reversed later in the month at lower market rates, which declined by 81% following the Overrun Entitlement. By February 28, 2021, Sumas market prices had declined to $[redacted]/dth, yielding a cost of just $2,954.95 to Cascade for Tree Top's overrun volumes. This calculation is also detailed in **Confidential Table 4**. Thus, by this measure, the amount that Cascade charged to Tree Top was over 67 times greater than the actual imbalance cost Tree Top imposed on Cascade. While it is important to establish an incentive for accurate scheduling during an entitlement, applying a charge of this magnitude for the purpose of penalizing Tree Top was excessive.

Q. DID TREE TOP'S MARKETING AGENT DELIVER SUFFICIENT GAS DURING THE OVERRUN ENTITLEMENT TO SERVE ITS CUSTOMERS?

A. Yes. Viewed independently, a few CMS customer accounts exceeded their entitlement. Overall, however, CMS delivered more gas to Cascade's system than its customers used during the entitlement period. This may be seen in **Confidential Table 5** below.

Confidential Table 5
CMS Aggregate Over-/(Under-) run
During Overrun Entitlement Period (dth)

[redacted]

During the Overrun Entitlement, CMS delivered [redacted] dth of natural gas to Cascade's system. Notwithstanding, CMS' customers only used [redacted] dth. Thus, CMS delivered [redacted] dth, or 26%, more gas than its customers used during the entitlement period. Relative to the 108% entitlement level, this equates to usage of [redacted] dth less than its customers' aggregate entitlement. Depending on the market price assumption used, the excess [redacted] dth CMS delivered to Cascade's system compared to what its customers consumed was worth between $[redacted] if priced at the Green River market or $[redacted] if priced at the Sumas market.

Q. HOW DID OTHER MARKETERS PERFORM IN THE ENTITLEMENT PERIOD?

A. Similar to CMS, other transportation customers significantly overdelivered during the Overrun Entitlement. This may be observed in **Table 6,** below.

Table 6
Cascade Transportation Customer's Aggregate Over-/(Under-) run
During Overrun Entitlement (dth)

	Feb 12	Feb 13	Feb 14	Feb 15	Feb 16	Total
Nominated	267,865	257,016	239,317	245,954	240,136	1,250,288
Entitlement	289,294	277,577	258,462	265,630	259,347	1,350,311
Usage	254,015	232,027	214,109	215,546	200,838	1,116,535
Overrun	(35,279)	(45,550)	(44,353)	(50,084)	(58,509)	(233,776)

During the Overrun Entitlement, transportation customers collectively delivered 1,250,288 dth of gas to Cascade's system but only used 1,116,535 dth. Thus, transportation customers delivered 133,753 dth, or 12% more gas to Cascade's system than they used in the Entitlement Period. This usage was 233,776 dth less than the collective entitlement of transportation customers during the Overrun Entitlement. Depending on the market price assumption used, the 133,753 dth of additional gas supplied by transportation customers to Cascade's system was worth between $14,496,366 if priced at the Green River market or $1,810,490 if priced at the Sumas market. Based on the magnitude and value of these underruns, the gas supplied by CMS and other transportation customers during the Overrun Entitlement benefitted Cascade significantly.

Q. DO THE CHARGES CASCADE ASSESSED TO TREE TOP REPRESENT ACTUAL HARM OR ACTUAL COST TO CASCADE?

A. No. Cascade was not harmed with respect to the overruns at Tree Top during the entitlement period. Further, Tree Top's marketer, as well as transportation customers as a whole, overperformed relative to their individual entitlement obligations. Accordingly, penalizing Tree Top based on the Green River market, at a rate that is 67 times greater than Cascade's actual cost, was disproportionate relative to the costs Tree Top had imposed.

Q. HOW HAVE OTHER UTILITIES AND COMMISSIONS DEALT WITH OVERRUN ENTITLEMENT CHARGES IN CIRCUMSTANCES SUCH AS THIS?

A. While Cascade may claim that it must strictly follow its tariff and was required to issue the overrun entitlement charges, other utilities have worked with customers to modify entitlement charges to a more reasonable level. For example, this Commission approved a settlement between Puget Sound Energy and a group of customers reducing certain overrun entitlement charges from $10/therm to $1/therm imposed during the 2018-2019 Winter Period.[33] While Puget Sound Energy and the customers did not agree on the interpretation of certain tariff provisions regarding curtailments and entitlements, the settlement reflects that fact that all parties believed $1/therm charge for the overrun entitlements was fair, just and reasonable. Further, the Idaho Public Utility Commission

33 *Seattle Children's Hospital et al., vs Puget Sound Energy*, Docket UG 190857, Order 04 (Approving Settlement without Condition).

found it appropriate to approve a reduction in an overrun entitlement charge when neither the utility nor its customers were harmed by a customer's overrun entitlement.[34] In that case, Avista Corporation agreed that strict application of the overrun entitlement charge was unreasonable and negotiated with the customer to reach a more reasonable penalty.

V. RECOMMENDATION

Q. WHAT IS YOUR RECOMMENDATION?

A. I recommend that the Commission require Cascade to recalculate the overrun entitlement charges based on 150% of Sumas market prices during the Entitlement Period. I recommend the refund accrue interest at the FERC short term interest rate for refunds and deferrals, starting from June 24, 2021, the date that Tree Top made the payment in protest, through September 30, 2022, an estimated date for the refund. The result of this calculation, which may be found in **Confidential Table 1** in the introduction and in my supporting workpapers, is a $196,633.96 refund to Tree Top.

Q. WHY DO YOU RECOMMEND USING THE SUMAS MARKET PRICES?

A. It is important for marketers and transportation customers to procure adequate supplies and provide accurate information in an overrun entitlement period. The Sumas market is the most liquid trading hub in our region and where Canadian gas supplies are delivered for use in the Pacific Northwest. In light of the market dysfunction in the Southwest,

[34] Avista Corporation's Petition for Approval of a Settlement Agreement Between Clearwater Paper Corporation and Avista Corporation, AVUG2002, Order 34712, 2020 WL 3630529, at *3 (Jun 30, 2020, Idaho P.U.C.).

Sumas represents the most appropriate price signal to send to Tree Top in order to encourage them to closely monitor their nominations during and entitlement period. Further, applying a rate that is 150% of the Sumas rate still provides strong incentive to encourage accurate forecasting, without being overly punitive.

The Stanfield market would also be an appropriate market to consider for the purpose of sending an accurate price signal as it is the nearest market to Cascade's service territory. To evaluate this alternative, I have detailed the impact of using either market in my workpapers. Use of the Stanfield market rates to calculate Tree Top's Overrun Entitlement charges would increase the refund amount to $201,968.04.

Q. WHY DO YOU RECOMMEND NETTING THE USAGE AT THE FOUR TREE TOP FACILITIES?

A. Ideally, overrun entitlements would be calculated and netted for each marketing agent to ensure that the marketers are delivering supplies sufficient to meet the demands of their collective customers. In this case, where the overruns of other CMS customers are not at issue however, I recommend that the daily overruns at Tree Top be netted to provide Tree Top with the benefit of excess gas supplied for its other accounts.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.