

State of North Carolina
North Carolina Utilities Commission
Raleigh

Docket No. G-40, Sub 171

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION:

In the Matter of)
)
Application of Frontier Natural Gas)
Company for Annual Review of)
Gas Costs Pursuant to G.S. 62-133.4(c))
and Commission Rule R1-17(k)(6))

DIRECT TESTIMONY
OF
TAYLOR B. YOUNGER

December 1, 2022

1 **Q. Please state your name, business address, by whom you are employed, and in**
2 **what capacity.**

3 A. My name is Taylor B. Younger. My business address is 110 PGW Drive, Elkin
4 North Carolina, 28621. I am employed by Frontier Natural Gas Company
5 (“Frontier”), as Manager of Compliance and Operations.

6 **Q. Mrs. Younger, how long have you been associated with Frontier?**

7 A. I began working with Frontier in August 2017.

8 **Q. Mrs. Younger, what are your current responsibilities with Frontier related to**
9 **gas supply planning?**

10 A. I am responsible for the management and oversight of natural gas supply planning
11 and purchases for Frontier. Specifically, my responsibilities include oversight of
12 procurement and optimization of pipeline transportation, and supply assets, system
13 demand forecasting, administration of Frontier’s hedging plans, state and federal
14 regulatory issues concerning supply and capacity, asset and risk management, and
15 transportation administration.

16 **Q. Mrs. Younger, please summarize your educational and professional**
17 **background.**

18 A. I am a graduate of North Carolina State University with a B.S. degree in Industrial
19 and Systems Engineering and a minor in Business Administration. I am also
20 currently a student in NC State’s Jenkins MBA program, with an anticipated
21 graduation date of December 2022. Since beginning my career at Frontier, I have
22 had the opportunity to attend various training sessions to enhance my professional

1 development. I have obtained certifications focused around leadership, system
2 design and modeling, and pipeline integrity.

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

4 A. The purpose of my testimony is to provide information establishing the prudence
5 of Frontier's gas purchasing policies and practices during the review period for this
6 proceeding

7 **Q. Do you have any exhibits to your direct testimony?**

8 A. Yes, Exhibit_(TBY-1), which is our current procurement plan, is attached and
9 described later in this testimony.

10 **Q. Was this exhibit prepared by you or under your direction?**

11 A. Yes.

12 **Q. What is the Review Period under consideration in this docket?**

13 A. As established by Commission Rule R1-17, the review period ("Review Period")
14 for this proceeding is the 12 months ended September 30, 2022.

15 **Q. Can you describe Frontier's customer base?**

16 A. Frontier serves approximately 4,800 customers in Ashe, Surry, Warren, Watauga,
17 Wilkes and Yadkin Counties. Of these customers approximately 2,800 customers
18 are served pursuant to our firm residential rate schedule; 1,790 are firm commercial
19 customers, 170 are firm agriculture customers, and 36 are industrial customers, with
20 31 of these being industrial transportation customers. In terms of system
21 throughput, approximately 32% of our delivered volumes for the Review Period
22 were for firm sales service and approximately 68% were for interruptible
23 transportation service.

1 **Q. Please describe how Frontier calculates its need for upstream supply and**
2 **capacity?**

3 A. Frontier, on average, used 7,330 dth/day in the coldest months of January and
4 February 2022. We have capacity that covers us up to 8,613 dth/day. We feel
5 comfortable with our capacity coverage of 8,613 dth/day, as this is more than we
6 need on average in the winter, and it covered us 70% of days in January and
7 February 2022. We are also constantly on the lookout for open capacity on Transco
8 as our customer base continues to grow.

9 **Q. Does Frontier utilize any kind of peak day analysis to determine its customer's**
10 **needs?**

11 A. Yes, we utilize a Peak Day analysis provided by Marquette Energy Analytics
12 ("Marquette") to determine what our peak demand requirements may be for our
13 firm customer load. Marquette is a well-known organization with established
14 expertise in peak day calculations for natural gas local distribution companies.

15 **Q. What arrangements did Frontier have in place to meet its firm customers peak**
16 **day demand for the Review Period?**

17 A. Frontier was able to follow our procurement plan to hedge and nominate FOM gas
18 to cover the Marquette expected peak for each winter month. Please see Table 1
19 below.

1

Table 1

	A	B	C	D	E	F
1						
2		Nov-21	Dec-21	Jan-22	Feb-22	Mar-22
3	Marquette Expected Peak					
5	Marquette Expected Avg					
18	Noms for Month:					
19	Hedged Z3					
20	Hedged Z5					
21	Added Nom Z3 FOM					
22	Added Nom Z5 FOM					
23	Expected Nom (Hedge Included)					
24	Flex Amount Z3 Daily					
25	% Hedged					
26	Ultimate Daily Coverage (Meaning No Z5 Daily Purchases)					

2

Q. Was Frontier able to meet its firm customers' needs during the winter of 2021/2022?

3

4

A. Yes. We were able to continuously meet our firm customers' demands for gas throughout the winter 2021/2022 heating season without curtailment or interruption of any firm customers.

6

7

Q. What arrangements does Frontier have in place to meet its firm customers peak day demand for the winter 2022/2023 heating season?

8

9

A. Because of Transco OFO imbalances becoming more frequent, we can no longer cover ourselves to be long every day. We must make sure our nominations cover only our expected daily average. Due to market volatility last winter resulting in FOM prices being much higher than daily sellback prices, we were experiencing higher than expected losses on our FOM nominations when weather was not extremely cold. We decided it would be best to cover ourselves with a peaking plan, which covers us up to 24,000 dth on 12 days between January and February of

15

1 2023. We have the ability to call on up to 2,000 dth daily on any 12 days. We will
2 purchase the 24,000 dth at Z4 daily pricing if we should need it. Our daily
3 nominations, which are a combination of hedges and FOM gas, will still cover us
4 up to expected average, and we will still have a swing available for Z3 daily
5 purchases, which will cover us most days. In fact, using the covered dth amounts
6 in Table 2 row 26, we would have been covered 97% of days in January and
7 February of last year. Because we cannot predict the weather, the peaking gas is
8 available if we should need it due to an unforeseen cold snap in January and
9 February. We discussed the peaking option on the June 22, 2022 meeting with the
10 Public Staff. Please see Table 2 below.

11 **Table 2**

	A	B	C	D	E	F
1						
2		Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
3	Marquette Expected Peak					
5	Marquette Expected Avg					
18	Noms for Month:					
19	Hedged Z3					
20	Hedged Z5					
21	Added Nom Z3 FOM					
22	Added Nom Z5 FOM					
23	Expected Nom (Hedge Included)					
24	Flex Amount Z3 Daily					
25	% Hedged					
26	Covered Up To (Meaning No Z5 Daily Purchases)					
27	Peak additional					
28	Ultimate Daily Coverage					

1 **Q. Do you believe these arrangements will be sufficient to provide firm service to**
2 **your firm sales customers on an uninterrupted basis during the upcoming**
3 **winter heating season?**

4 A. Yes. We believe we will be able to continuously meet our firm customers' demands
5 for gas throughout the winter 2022/2023 heating season without curtailment or
6 interruption of any firm customers.

7 **Q. Please explain the payment arrangements associated with your winter**
8 **2021/2022 supply and capacity assets.**

9 A. As part of our contract with UGI beginning April 1, 2020, Frontier pays purchase
10 fees of 1 cent per dth of Z3 gas and 3 cents per dth of Z5 gas.

11 **Q. Are these the same arrangements you have in place for the winter of**
12 **2022/2023?**

13 A. Yes, we will operate under this same contract with UGI through March 31, 2023.
14 We will begin a new asset management arrangement with Gas South in April of
15 2023 which has more favorable terms than those available to us under the UGI
16 AMA we have had in place the last three years. Frontier will have no Z3 or Z5 fees
17 associated per dth. Frontier will also receive a refund of \$9,500 dollars per month
18 for potential unused capacity.

19 **Q. In Docket No. G-40, Sub 149 the North Carolina Utilities Commission Ordered**
20 **“That Frontier and the Public Staff shall work together collaboratively to**
21 **address future gas purchasing practices by Frontier, including hedging and**
22 **other price mitigation practices, to reduce or eliminate concerns over**
23 **customer exposure to potential gas cost volatility while maintaining reasonable**

1 **up-front charges to customers for the right to call on gas under high demand**
2 **scenarios.” Please summarize the steps taken by Frontier to address this point**
3 **in the order.**

4 A. On June 4, 2019, Frontier met with Public Staff and NCUC Pipeline Safety Section
5 to discuss Frontier’s updated Gas Supply Procurement Policy. The main purpose of
6 this meeting was to share how we plan to utilize our Procurement Policy going
7 forward. After conversations with Public Staff, we slightly revised the Gas Supply
8 Procurement Policy in April of 2020. Frontier met with the Public Staff again on
9 June 22, 2022 to discuss our procurement strategies for the upcoming winter. The
10 procurement policy was slightly revised as of this meeting, and is included in
11 Exhibit_(TBY-1). Under a contract with Marquette, Frontier will be provided with
12 an annual report showing a monthly forecast for the upcoming year.

13 **Q. How is the forecast from Marquette used for supply planning?**

14 A. This forecast includes an expected daily average flow and an expected daily
15 maximum flow for each month of the upcoming year. This report provided by
16 Marquette is derived from actual historical usage, historical weather patterns, and
17 projected customer growth. Our supply planning for each review period is based
18 off this forecast as we receive this report each March to help us make hedging
19 decisions for the upcoming winter. To ensure a best cost scenario without
20 speculation, we plan to make 1/6 of our total planned hedge purchase in each month
21 of April to September to cover gas supply purchases for the months of November
22 through March.

1 **Q. How is the Hedge volume of Z3 purchases determined?**

2 A. Frontier is only able to swing on the portion of our Z3 firm transportation capacity
3 that is firm primary to our City Gate. 3,613 dth of our 8,613 dth capacity is currently
4 delivered on a firm primary basis to our City Gate, with the remaining 5,000 dth,
5 delivered under a firm contract which has a firm primary delivery point south of
6 our City Gate. This means that we will either need to hedge the 5,000 dth for each
7 day of the month or purchase it for the month at a FOM index price.

8 **Q. Are there any changes to the gas supply policy in the current review period?**

9 A. Continuing with Frontier's policy as discussed when mentioning the upcoming
10 winter period in Docket G-40, Sub 163, Frontier did target up to sixty percent of
11 this amount to be hedged, with the rest being purchased at an FOM index price. If
12 the remainder of the 3,613 capacity is needed on top of the total nominated daily
13 gas amount made up of Z3 hedged gas, Z3 FOM index priced gas, Z5 hedged gas,
14 and Z5 FOM index priced gas, it will be purchased at the Z3 Daily index price.

15 **Q. How is the Hedge volume of Z5 purchases determined?**

16 A. The minimum quantity of Z5 gas to be Forward Hedged will depend on the
17 expected maximum day flow for each winter month. Current firm Z3 transportation
18 capacity of 8,613 dth should be subtracted from the expected maximum day flow
19 to conclude how much Z5 gas should be purchased for that month. It is concluded
20 that up to sixty percent of this amount should be hedged, while the rest of Z5
21 purchases should be executed at FOM index price. When the estimated peak day
22 requirements for a month indicate that no Zone 5 purchases are anticipated, there
23 will be no required Z5 hedge volume. Z5 Forward Hedged quantity will be

1 reviewed annually and re-established based on changes in system needs. Z5 FOM
2 purchase quantity will be based upon considerations of the current market prices
3 and the most current weather forecast at the time FOM nominations are due.

4 **Q. In Docket No. G-40, Sub 149 the North Carolina Utilities Commission**
5 **concluded that Frontier should examine options for bolstering its gas supply**
6 **planning. Please summarize the steps taken by Frontier to address this point**
7 **in the order.**

8 A. Frontier has made a conscious effort to engage the Hearthstone Utilities Risk and
9 Supply Committee in all aspects of our gas supply planning by providing committee
10 members with not only our weekly usage updates, but also more insight into our
11 hedging plan and purchases. This creates a more collaborative approach to gas
12 supply planning by giving committee members a chance to offer their opinions.
13 Within the past few years, Frontier has sought outside expertise for gas supply
14 endeavors by utilizing Hearthstone's gas supply consultants, Al Harms and Len
15 Gilmore. These consultants gave insight into revising our Gas Supply Procurement
16 Plan in 2019. They also helped guide us through the process of rationalizing and
17 choosing our Gas Supply Asset Manager for the period of April 1, 2020 - March
18 31, 2023. Mr. Harms retired from the organization on December 1, 2021, and Mr.
19 Gilmore retired from the organization on October 31, 2022. Frontier has hired an
20 individual to focus on Gas Supply and Procurement as I have taken on a new role
21 as Manager of Compliance and Operations. I will train our new hire and oversee
22 gas supply. Frontier believes with the additional gas supply hire, my experience,
23 and the expertise available to Frontier through the HUI Risk and Supply

1 Committee, we have the resources necessary for gas supply and procurement
2 planning.

3 **Q. It is known that Frontier does not have firm transportation capacity sufficient**
4 **to cover winter peak days. How did Frontier handle this during the review**
5 **period?**

6 A. Our current AMA contract with UGI covers us up to 20,000 dth a day through April
7 of next year. Frontier utilized our current AMA to limit our exposure to the volatile
8 Z5 daily market. For example, in January of 2022, Frontier was covered up to
9 13,500 daily dths through a combination of forward hedged Z3 and Z5 gas and Z3
10 and Z5 FOM nominations. The 13,500 dth covered the potential maximum daily
11 use from Marquette while including the potential for marketer imbalances. The goal
12 was to avoid being subject to volatile Z5 Daily pricing.

13 **Q. In your opinion, were Frontier's gas purchasing policies and practices during**
14 **the Review Period prudent?**

15 A. Yes.

16 **Q. Does this conclude your testimony?**

17 A. Yes, at this time.

Exhibit_(TBY-1)

Frontier Natural Gas Company

Policy and Practice of: Gas Supply Procurement

Purpose:

It is the Frontier Natural Gas Company (Frontier) mission to provide safe and reliable natural gas service at a reasonable price to our customers. The purpose of this policy is to provide direction for the procurement of natural gas for resale and to establish financially sound, responsible, and prudent guidelines for the procurement of natural gas from available sources for the operation of the natural gas utility system.

Objective:

The Gas Supply Procurement policy of Frontier seeks supply adequacy, reliability, diversity, and minimization of the associated costs while stabilizing prices. This begins with an accurate estimation of customer usage requirements and a plan to meet them in an efficient manner. This is accomplished through a diligent effort to assess available supply options to meet system and customer requirements in an organized approach.

Regulatory Authority:

Frontier is a natural gas local distribution company and is as a public utility under the laws and regulations of the State of North Carolina pursuant to Chapter 62 of the North Carolina General Statutes. Frontier is also regulated per the rules and regulations set forth by the North Carolina Utilities Commission (Commission).

Policy:

Frontier's Gas Supply Planning Committee (Committee) has been established and maintained to pursue this objective. External Information evaluated by the Planning Committee will include, but is not limited to, market indicators, seasonal weather forecasts, periodicals and forecasts of natural gas prices, and all available intelligence on the direction of natural gas and pipeline capacity availability and prices.

Each year the Committee will review the natural gas historic sales volumes of bundled customers and forecasts of future load requirements, based on added process and heat load to supply new bundled customers, in a Gas Supply Annual Budget to senior management. The Gas Supply Annual Budget in combination with the gas purchasing practices stated in this Gas Supply Procurement Plan will be referred to as the Annual Plan.

The Annual Plan will estimate the segmented monthly and daily quantity based on the historic loads and the projected additional daily volume added to the system by rate class as well as firm and interruptible customers. Statistical-based forecasts and estimates will be formulated using heating degree days, usage per heating degree day, customer additions or losses and other trends and correlations that appear to drive natural gas

consumption. Engineering concerns regarding system pressure during peak periods and the challenges of skewed growth will be addressed in the Annual Plan. The Annual Plan will delineate the estimated supply requirements under a most likely winter scenario as well as a one in 30-years (or heating degree-day equivalent) winter scenario, and thus will project reasonably expectable demand for firm service under North Carolina Utilities Commission Rule R6-23 for adequacy of supply.

To best pair identified supply requirements with available gas supply capacity, Frontier will review estimated monthly, seasonal and peak demand day requirements for full service customers to resources available to meet these requirements. Upstream resources may include peaking and storage services, supplies that are base load, swing, seasonal supply and/or spot purchases. Long-term planning for peak period resources to be considered will include, but not be limited to, air-propane plants, liquefied natural gas (LNG) plants and on-system storage. Per Commission, Rule R6-23 - Adequacy of Supply, there will be an assessment of the production and/or storage capacity of the utility's plant, supplemented by the gas supply regularly available from other sources, to determine if there is sufficient supply to meet all reasonably expectable demands for firm service.

"Suppliers" shall mean any entity which locates, aggregates, produces, purchases, sells, stores and/or transports natural gas or its equivalent to, for or on behalf of Frontier. Suppliers may include, but not be limited to, interstate or intrastate pipeline transmission companies, producers, brokers, marketers, associations, joint ventures, providers of Liquefied Natural Gas, Liquefied Petroleum Gas, Synthetic Natural Gas and other hydrocarbons used as feed stock, other local gas distribution companies and end-users.

In annually evaluating and determining the proper resources to procure for the system, the Company will consider other important factors such as, but not limited to, current supply and capacity portfolio, adequacy, price, security, flexibility and deliverability. In some instances, requests for quotes or requests for proposals may be necessary to acquire price or cost data. In such instances, Frontier will not discriminate against any qualified entity.

The general strategy is to serve current and incremental base load and peak period usage following a best-cost dispatch strategy. Frontier uses a "Best Evaluated Cost" supply strategy to achieve Gas Supply Procurement objectives and goals. This strategy entails seeking adequacy, flexibility, and security/creditworthiness of supplier, reliability/dependability of supply, cost of gas, stability of costs incurred and quality of supplier. The Committee will consider the resources available to accomplish this task. Typically, Frontier compares the price at which it can acquire bundled supply and capacity versus the cost of other alternatives. A determination of what type of resource(s) can be reasonably acquired or developed for meeting the Company's deliverability needs is necessary in deciding whether the Company should acquire pipeline transportation capacity; peaking service; acquire liquefied or compressed natural gas plant (LNG or CNG) and facilities; acquire a propane air plant and facilities; acquire a storage service; develop additional on-system storage deliverability or any other supply options. The Committee will evaluate available alternatives each year for their appropriateness in the context of its long-term strategy, portfolio and Annual Plan, and will produce a gas procurement plan that best meets the Frontier system demand for both capacity and supply.

A reconciliation analysis between the previous year's approved Annual Plan and actual performance will be provided in the current Annual Plan. The Annual Plan will provide an explanation of significant variations from

the approved plan, adherence to policy, and areas in which methods can be improved. The Annual Plan will contain or cite supporting documents for its conclusions and recommendations.

The Annual Plan shall contain an action plan with a time table to implement the Annual Plan recommendations. The Committee head will be responsible to initiate the Annual Plan, its updates and delivery to senior management in a timely manner. Senior management will direct staff to implement the accepted plan and any modifications in a timely manner.

Suppliers will be notified of individuals that can execute instructions and orders on behalf of Frontier. Instructions and orders will be counter-signed by another individual familiar with the Annual Plan. Document or notation will be made at this time if significant deviation from the Annual Plan is instructed or ordered. Suppliers will provide written confirmation of instructions and orders via fax or electronic communication to appointed individuals as documentation.

Supply Contracting Practice:

It is Frontier's current practice to employ one supplier to centralize purchasing and reliability of gas deliveries under a full requirements contract called the Asset Management Agreement (AMA). It is Frontier's policy to evaluate this and different strategies and tactics to promote reliability, price stability and cost efficient purchasing in the Annual Plan or as opportunities arise.

The core of Frontier's current strategy is to obtain supply reliability and price stability by fixing components of the gas cost, including fixing commodity costs and/or transportation costs of the commodity for physical delivery to the Company.

Supply Pricing Practice:

Frontier has a three part pricing strategy in gas purchasing: 1) Hedging, 2) First of the month and 3) Daily. The objective behind the weighted average approach is to reduce the risk of gas cost volatility by purchasing gas priced at diverse times reflective of market-based gas price indexes. Execution of the Pricing Strategy will be for the purpose of creating a hedge against market volatility, both seasonal and daily, and not for price speculation

Frontier may procure hedges in winter strips (any period within the months of November through March). During the summer months, Frontier will seek to obtain reliable and stable commodity prices by fixing forward commodity prices for high demand periods. Although these hedges may be purchased at a premium to average supply rates during this period, bundled customers will be insulated from extremely volatile price swings that have been characteristic to Transco Zone 5.

Guidelines for Hedging Quantities:

Frontier will undertake the best alternative to hedge the market area price, using fixed forward hedges, or fixed options based on the regional index price that coincides with Frontier's gas supply agreement in effect at

the time. Frontier will obtain periodic price quotes from its firm service provider to best evaluate the condition of the forward natural gas market.

Frontier will employ a dollar-cost averaging technique when buying the forecasted throughput for each forward hedge position. The intent of this approach is to reduce the variability on the purchases made on each hedge position. The quantity of supply to be hedged will depend on the Annual Plan. With the AMA now in place for April 1st 2020 through March 31st, 2023, it has become apparent that because of new balancing rules issued from Williams Transco, Frontier will only be able to swing on the portion of our capacity that is physically delivered to our City Gate. 3,613 dth of our 8,613 dth capacity is currently delivered to our City Gate, with the remaining 5,000 dth delivered south of our City Gate. This means that we will either need to hedge the 5,000 dth for each day of the month or nominate it with FOM nominations. It is concluded that up to sixty percent of this amount will be hedged, with the rest being purchased with FOM nominations.

If the remainder of the 3,613 capacity is needed on top of the total nominated daily gas amount made up of Z3 hedged gas, Z3 FOM nominated gas, Z5 hedged gas, and Z5 FOM nominated gas, it will be priced at Z3 Daily.

The minimum quantity of Z5 gas to be Forward Hedged will depend on the expected max day flow for each winter month. Current firm Z3 transportation capacity of 8,613 dth should be subtracted from the expected max day flow to conclude how much Z5 gas should be purchased for that month. It is concluded that up to sixty percent of this amount should be hedged, while the rest of Z5 purchases should be executed with FOM nominations. When the current estimated peak day requirements for a month indicate that no Zone 5 purchases are anticipated, there will be no required Z5 hedge volume. Z5 Forward Hedged quantity will be reviewed annually and re-established based on changes in system needs. Z5 FOM purchase quantity will be based upon considerations of the current market prices and the most current weather forecast at the time FOM nominations are due.

The quantities established in the Annual Plan for Forward Hedging will be equally divided into 6 parts with one part hedged each month from April to September.

In the event of unusual or unprecedented industry activities, we will have the ability to modify this procurement plan with the consultation of the NC Public Staff.

There will be a price floor set forth based on historical averages. If the all-in quoted price (NYMEX plus Basis) is equal to or less than historical average, we will forego the 6 equal installments and purchase the full amount for that winter month.

The floor prices for each winter month are to be averaged and analyzed before we begin hedging in April of each year.

Being as we are currently seeing unprecedented natural gas prices; our floor prices are subject to change during the hedging season of April to September with rationale as to the change. If there is a significant rise or fall in pricing for the natural gas market, our floor prices will be reset based on newly calculated averages.

Schedule of Actions Required before Hedging:

Frontier will follow a schedule of items each year leading up to the beginning of its winter or summer seasons. These time-driven items will constitute a consistent mechanism for Frontier to complete in order to accomplish the stated objectives of the Annual Plan.

- Starting in March, Frontier will reevaluate the Annual Plan by completing its load forecast of anticipated throughput for the next twelve months. Each twelve month period will run from April through March of the following year. The forecast will determine the quantities necessary to secure to meet the requirements of each hedge position.
- Starting in April, Frontier will request various fixed price quotes for the quantities it has designated to hedge over the winter period. All pricing information will be archived and a summary will be reported at each weekly Risk and Supply Meeting to include an assessment of any potential market event that would impact forward market prices.
- During the winter period Frontier will secure the necessary first-of-month (“FOM”) or spot purchases necessary to complete the supply pricing strategy for the month.

Any deviation from the Guidelines for Hedging Quantities will be identified and reported to the Gas Supply Policy Committee. The report will identify the variation, the event or events that lead to the variation and an explanation discussing how the variation addressed the events that lead to the variation.