

INFORMATION SHEET

PRESIDING: Commissioner Clodfelter, Commissioner Duffley and Commissioner Hughes
PLACE: Dobbs Building, Room 2115, Raleigh, NC
DATE: Tuesday, March 3, 2020
TIME: 10:00 a.m. – 10:23 a.m.
DOCKET NO.: G-40, Sub 153
COMPANY: Frontier Natural Gas Company, LLC
DESCRIPTION: Application for Annual Review of gas Costs Pursuant to G.S. 62-133.4(c) and
Commission Rule R1-17(k)(6)
VOLUME:

APPEARANCES

FOR FRONTIER NATURAL GAS COMPANY, LLC:
James H. Jeffries, IV, Esq.

FOR THE USING AND CONSUMING PUBLIC:
Elizabeth Culpepper, Esq.

WITNESSES

Fred A. Steele	Taylor B. Younger	
Neha Patel	Shawn L. Dorgan	Julie G. Perry

EXHIBITS

Steele Schedules 1-4, 8, 10 and 11, and Confidential Exhibits A and B	I/A
Younger Exhibits A – G; Confidential E and F	I/A

EMAIL DISTRIBUTION

PUBLIC COPY: Jeffries – 1; Culpepper – 1

CONFIDENTIAL COPY:

REPORTED BY: Kim Mitchell

DATE FILED: March 19, 2020

TRANSCRIPT PAGES: 33

PREFILED PAGES: 56

TOTAL PAGES: 89

FILED

MAR 19 REC'D

Clerk's Office
N.C. Utilities Commission

**NORTH CAROLINA UTILITIES COMMISSION
APPEARANCE SLIP**

DATE: MARCH 3, 2020 DOCKET NO.: 6-40, SUB 153
ATTORNEY NAME and TITLE: JAMES H. JEFFRIES IV
FIRM NAME: McGURE WOODS LLP
ADDRESS: 201 N. TRYON STREET, SUITE 3000
CITY: CHARLOTTE STATE: NC ZIP CODE: 28202
APPEARING FOR: FRONTIER NATURAL GAS CO.

APPLICANT: ☒ COMPLAINANT: ☐ INTERVENOR: ☐
PROTESTANT: ☐ RESPONDENT: ☐ DEFENDANT: ☐

PLEASE NOTE: Non-confidential transcripts may be accessed by visiting the Commission's website at <https://ncuc.net>. Hover over the Dockets tab, select Docket Search from the drop-down menu, and enter the docket number.

Electronic transcripts are available at a charge of \$5.00 per transcript

To order an electronic transcript, please provide an email address and sign below:

Email: JEFFRIES@MCGUREWOODS.COM

SIGNATURE: [Signature]

To order an electronic **confidential transcript**, please check the box and sign below:

☒ Yes, I have signed the Confidentiality Agreement.

SIGNATURE: [Signature]

(Signature required for distribution of **ALL** transcripts)

NORTH CAROLINA UTILITIES COMMISSION
PUBLIC STAFF - APPEARANCE SLIP

DATE March 3, 2020 DOCKET #: G-40, Sub 153

PUBLIC STAFF MEMBER Elizabeth D. Culpepper

ORDER FOR TRANSCRIPT OF TESTIMONY TO BE **E-MAILED** TO THE
PUBLIC STAFF - PLEASE INDICATE YOUR DIVISION AS WELL AS
YOUR E-MAIL ADDRESS BELOW:

ACCOUNTING _____

WATER _____

COMMUNICATIONS _____

ELECTRIC _____

GAS _____

TRANSPORTATION _____

ECONOMICS _____

LEGAL elizabeth.culpepper@psncuc.nc.gov;

CONSUMER SERVICES _____

PLEASE NOTE: Electronic Copies of the regular transcript can be obtained from the NCUC web site at <https://starw1.ncuc.net/NCUC/page/Dockets/portal.aspx> under the respective docket number.

1 Number of copies of confidential portion of regular transcript (assuming a confidentiality agreement has been signed). Confidential pages will still be received in paper copies.

*****PLEASE INDICATE BELOW WHO HAS SIGNED A CONFIDENTIALITY AGREEMENT. IF YOU DO NOT SIGN, YOU WILL NOT RECEIVE THE CONFIDENTIAL PORTIONS!!!!**

Elizabeth D. Culpepper
Signature of Public Staff Member

OFFICIAL COPY

Mar 20 2020

Stelle
Schedule 1

II/A

Dec 02 2019

OFFICIAL COPY

Mar 20 2020

OFFICIAL COPY

Frontier Natural Gas Company
Docket No. G-40, Sub 150
SUMMARY OF COST OF GAS EXPENSE
For the Twelve Months Ended September 30, 2019
Schedule 1

	ITEM	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Total
1	NC Demand and Storage Costs Expensed (Sch 2)	\$116,658	\$118,991	\$146,037	\$372,768	\$343,236	\$163,130	\$150,914	\$149,514	\$141,828	\$146,768	\$147,978	\$146,884	\$2,144,706
2	NC Commodity Costs Expensed (Sch 3)	302,337	488,767	937,507	1,033,442	492,819	481,747	251,056	166,027	121,450	121,256	147,854	166,786	\$4,711,048
3	Other Gas Costs Expensed (Sch 4)	(4,480)	320,757	124,342	(1,024)	(21,223)	(197,177)	(46,331)	(106,087)	(114,472)	(95,829)	(28,416)	90,967	-\$78,973
4	Total Cost of Gas Expensed (Sum of L1 - L3)	\$414,515	\$928,515	\$1,207,886	\$1,405,186	\$814,832	\$447,700	\$355,639	\$209,454	\$148,806	\$172,195	\$267,416	\$404,637	\$6,776,781

6,776,781

Dec 02 2019

OFFICIAL COPY

Mar 20 2020

OFFICIAL COPY

Steele
Schedule 2

II/A

Dec 02 2019

OFFICIAL COPY

Mar 20 2020

OFFICIAL COPY

Frontier Natural Gas Company
Docket No. G-40, Sub 150
Demand and Storage Costs Expensed
For the Twelve Months Ended September 30, 2019
Schedule 2

ITEM		Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Total
Demand and Storage Charges:														
1	Transco Capacity Charge - Frontier Capacity	\$102,062	\$98,770	\$102,062	\$102,062	\$92,185	\$139,711	\$135,914	\$140,444	\$135,914	\$140,444	\$140,444	\$135,914	\$1,465,926
2	Other Capacity Charges	14,596	20,221	43,975	43,206	23,551	23,419	15,000	9,070	5,914	6,324	7,534	10,970	\$223,780
3	Peaking Contracts				227,500	227,500								\$455,000
4	Total Demand Charges	\$116,658	\$118,991	\$146,037	\$372,768	\$343,236	\$163,130	\$150,914	\$149,514	\$141,828	\$146,768	\$147,978	\$146,884	\$2,144,706
5	Storage Charges													
6	Total Demand and Storage Charges Expensed	\$116,658	\$118,991	\$146,037	\$372,768	\$343,236	\$163,130	\$150,914	\$149,514	\$141,828	\$146,768	\$147,978	\$146,884	\$2,144,706

Dec 02 2019

OFFICIAL COPY

Mar 20 2020

OFFICIAL COPY

Stall
Schedule 3

11/14

Dec 02 2019

OFFICIAL COPY

Mar 20 2020

OFFICIAL COPY

Frontier Natural Gas Company
Docket No. G-40, Sub 150
SUMMARY OF COMMODITY GAS COSTS
For the Twelve Months Ended September 30, 2019
Schedule 3

ITEM	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Total
Commodity Cost at City Gate													
Supplier #1:													
1 Gas Supply Baseload Purchases	330,336	475,500	1,260,254	963,881	525,980	479,105	319,200	186,000	123,360	107,152	122,512	183,960	\$5,077,240
2 Daily Purchases (Zone 3)	30,769	76,693				40,994	28,875	25,006	31,809	32,478	36,022	15,711	318,357
3 Daily Delivered Purchases (Zone 5)		9,692	4,452	314,308		93,620							422,072
4 Hedging/Peaking Purchases				11,578	166,513								178,191
5 Other - Sell Back	(52,349)	(84,162)	(313,839)	(260,533)	(203,171)	(136,214)	(108,319)	(49,554)	(37,604)	(22,899)	(14,174)	(38,259)	(1,321,077)
6 Cash Out Adjustments					7,418	(7,418)				(639)	(3,405)	4,043	(1)
Marketer Cash Out	(6,419)	11,044	(13,360)	4,208	(4,021)	11,660	11,300	4,575	3,885	5,164	6,899	1,331	\$36,266
6 Total Commodity Cost Expense	302,337	\$488,767	\$937,507	\$1,033,442	\$492,819	\$481,747	\$251,056	\$166,027	\$121,450	\$121,256	\$147,854	\$166,786	\$4,711,048

Dec 02 2019

OFFICIAL COPY

Mar 20 2020

OFFICIAL COPY

Stall
Schedule 4

II/A

Dec 02 2019

OFFICIAL COPY

Mar 20 2020

OFFICIAL COPY

Frontier Natural Gas Company
Docket No. G-40, Sub 150
SUMMARY OF OTHER COST OF GAS CHARGES (CREDITS)
For the Twelve Months Ended September 30, 2019
Schedule 4

	ITEM	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Total
	Deferred Account Activity													
1	Gas Cost True-up (excluding interest)	698	314,873	(19,299)	(4,373)	(24,938)	(194,247)	(54,779)	(107,814)	(77,196)	(99,694)	(38,850)	(28,216)	(333,834)
2	Transportation Cust Balancing True-up	(5,178)	5,884	(6,384)	3,341	(3,780)	4,423	7,721	2,589	3,306	4,263	5,337	867	22,379
3	Retro Gas Pricing True-up			-										
	GAS COST ADJUSTMENT			150,000						(40,582)			122,130	231,548
4	Miscellaneous Charges (a) Net Cash Out			25	8	7,495	(7,353)	727	(862)		(398)	5,097	(3,805)	934
5	Total Other Cost of Gas	(4,480)	320,767	124,342	(1,024)	(21,223)	(197,177)	(46,331)	(106,087)	(114,472)	(95,829)	(28,416)	90,967	(78,973)

Dec 02 2019

OFFICIAL COPY

Mar 20 2020

OFFICIAL COPY

Stall
Schedule 8

I/A

Dec 02 2019

OFFICIAL COPY

Mar 20 2020

OFFICIAL COPY

Frontier Natural Gas Company
Docket No. G-40, Sub 150
Summary of Deferred Account Activity
For the Twelve Months Ended September 30, 2019
Schedule 8

Month	Beginning Balance	Gas Cost True-Up	Adjustments	Transportation Balancing True-Up DB (CR)	Interest	Ending Balance
Oct-18	\$330,127.14	(698.40)		5,178.42	1,815.70	\$336,422.86
Nov-18	\$336,422.86	(314,873.14)	(113.11)	(5,884.16)	1,850.33	\$17,402.78
Dec-18	\$17,402.78	19,298.62	(150,000.00)	6,384.23	95.72	(\$106,818.65)
Jan-19	(\$106,818.65)	4,372.76		(3,341.16)	(587.50)	(\$106,374.55)
Feb-19	(\$106,374.55)	24,937.94		3,780.40	(585.06)	(\$78,241.27)
Mar-19	(\$78,241.27)	194,246.75		(4,422.58)	(430.33)	\$111,152.57
Apr-19	\$111,152.57	54,779.18		(7,721.42)	611.34	\$158,821.67
May-19	\$158,821.67	107,813.71		(2,589.44)	873.52	\$264,919.46
June-19	\$264,919.46	77,195.78	40,582.00	(3,305.99)	(6,632.94)	\$372,758.31
Jul-19	\$372,758.31	99,693.63		(4,262.98)	2,050.17	\$470,239.13
Aug-19	\$470,239.13	38,850.18		(5,336.84)	2,586.32	\$506,338.79
Sep-19	\$506,338.79	28,214.96	(122,130.34)	(856.91)	(1,301.14)	\$410,265.36
TOTALS		\$333,831.97	(\$231,661.45)	(\$22,378.43)	\$346.13	

ADJUSTMENTS

Nov-18

(113.11) Refund Received from Transco

Dec-18

(150,000.00) Prudency Review Accrual

Jun-19

\$32,492.00 is net result of the following line items related to the 2018 Prudency Review Accrual and Subsequent Order:

\$150,000 Prudency Review Accrual
(\$109,418) Actual Prudency Order
\$40,582 Total June 2019 Adjustment
(\$8,090) Interest Prudency Order

Sep-19

Correct the March 2019 cost of gas and Deferred Account. (122,130.34)

Dec 02 2019

OFFICIAL COPY

Mar 20 2020

OFFICIAL COPY

Stall
Schedule 10

II/A

Dec 02 2019

OFFICIAL COPY

Mar 20 2020

OFFICIAL COPY

Frontier Natural Gas Company
Docket No. G-40, Sub 150
SUMMARY OF GAS SUPPLY
For the Twelve Months Ended September 30, 2019
Schedule 10

	ITEM	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Total
	Sources of Supply at City Gate: (dfs)													
	Supplier #1:													
1	Gas Supply Baseload Purchases	111,600	150,000	267,003	267,003	182,000	170,500	120,000	74,400	48,000	48,050	58,900	84,000	1,581,456
2	Daily Purchases (Zone 3)	9,152	17,058	-	-	-	12,050	10,546	9,472	13,047	13,382	15,730	5,904	106,341
3	Daily Delivered Purchases (Zone 5)	-	1,815	718	42,997	-	31,000	-	-	-	-	-	-	76,530
4	Hedging Purchases/Peaking Purchase	-	-	-	3,769	54,236	-	-	-	-	-	-	-	58,005
5	Other -Hedge Buy Back	(16,063)	(22,032)	(78,973)	(73,307)	(74,971)	(49,695)	(44,194)	(19,448)	(16,414)	(10,101)	(6,517)	(15,458)	(427,173)
	Transco Purchase						258							258
6	Gas Supply Current Period Delivery	104,689	146,841	188,748	240,462	161,265	164,113	86,352	64,424	44,633	51,331	68,113	74,446	1,395,417

Dec 02 2019

OFFICIAL COPY

Mar 20 2020

OFFICIAL COPY

Stall
Schedule 11

II/A

Dec 02 2019

OFFICIAL COPY

Mar 20 2020

OFFICIAL COPY

Frontier Natural Gas, LLC
Docket No. G-40, Sub 150
Summary of Natural Gas Hedge Transactions
For the Twelve Months Ended September 30, 2019
Schedule 11

Month	Hedged dts	Actual dts	Projected dts	Percent Hedged	Hedged Cost \$/dth	Baseload \$/dth 1/	(Savings) Excess \$/dth	Hedge (Gain) Loss
Oct-18	-	NO HEDGES		0%			\$0.000	\$0
Nov-18	-	NO HEDGES		0%			\$0.000	\$0
Dec-18	-	NO HEDGES		0%			\$0.000	\$0
Jan-19	-	NO HEDGES		0%			\$0.000	\$0
Feb-19	-	NO HEDGES		0%			\$0.000	\$0
Mar-19	-	NO HEDGES		0%			\$0.000	\$0
Apr-19	-	NO HEDGES		0%			\$0.000	\$0
May-19	-	NO HEDGES		0%			\$0.000	\$0
Jun-19	-	NO HEDGES		0%			\$0.000	\$0
Jul-19	-	NO HEDGES		0%			\$0.000	\$0
Aug-19	-	NO HEDGES		0%			\$0.000	\$0
Sep-19	-	NO HEDGES		0%			\$0.000	\$0
Total	-	-	-					\$0

Dec 02 2019

OFFICIAL COPY

Mar 20 2020

OFFICIAL COPY

Younger
Exhibit A

I/A



Procurement Policy Update

June 4th, 2019

Frontier Natural Gas Company
2019 Prudency Review
G-40, Sub 150
TBY - Exhibit A

OFFICIAL COPY

Mar 20 2020

Gas Supply Procurement Policy Update

- ▶ Modifications to overall plan to better fit current FNGC Gas Procurement Practices
 - ▶ A copy of the plan is provided
- ▶ Most significant updates are the Guidelines for Hedging
 - ▶ FNGC may procure hedges in winter strips (any period within the months of November through March)
 - ▶ FNGC will hedge 50% of expected average daily flow for each winter month of Nov- Mar at Z3 pricing
 - ▶ The remainder of the 8,613 dth capacity will be priced at the Z3 FOM and/or Z3 Daily, based upon considerations of the current market prices and the most current weather forecast at the time FOM nominations are due, with a portion held for daily balancing to be priced at Z3 Daily
 - ▶ FNGC will subtract out current capacity of 8,613 dth from the expected max daily flow for each month to conclude how much Z5 gas should be purchased for that month
 - ▶ A reasonable percentage should be hedged, while the rest of Z5 purchases should be executed with FOM pricing
- ▶ 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
 - ▶ Each month's hedge will be executed between the 10th and 25th of that month

Marquette Energy Analytics Forecast for Hedging Purposes

- Marquette Energy Analytics performed a Design Day Study (DDS) for us in 2017
 - Typically clients ask for in depth DDS every 3-5 years
 - FNGC will ask for one again in 2022- Full DDS not needed annually with current contract
- Current contract with Marquette requires them to send an annual report updating us on Monthly Forecast for the upcoming year
 - This report is based on actual historical usage, historical weather patterns, and projected customer growth
 - We have asked to receive the report every March to show expected max flow and average flow each month for the upcoming year to help us make hedging decisions
 - A summary of the Marquette annual report is below:

	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19		Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20
Expected Max Flow	6,154	5,788	2,808	2,453	2,719	3,256	5,571		8,580	10,906	12,412	11,065	9,141	6,511	3,943
Expected Average Flow	3,390	2,619	2,153	1,938	2,073	2,478	3,488		5,085	6,927	7,931	7,033	5,223	3,553	2,715
1-in-30 load (from 2017 DDS)	7,304	4,705	2,442	1,897	2,247	4,090	6,471		8,489	11,792	12,964	12,152	10,272	7,304	4,703

Executed Hedge Example

➤ Total Amount to Hedge Over 6 Months, April - September

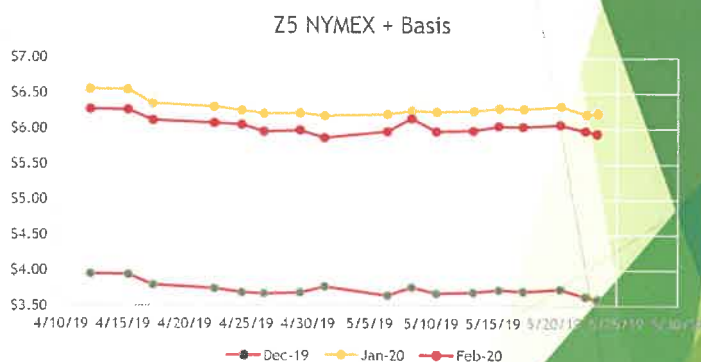
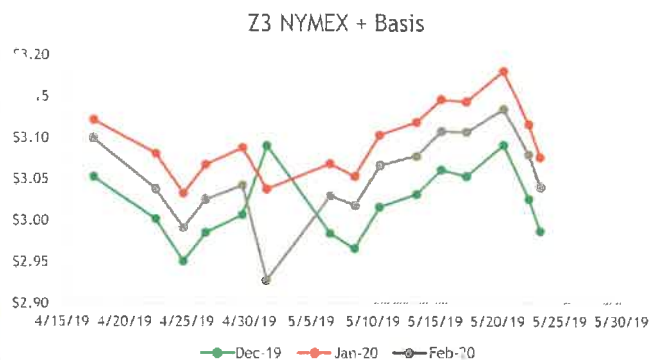
Zone 3 Capacity		8613										
	Max	Average	% Hedged	Z3 Forward Hedge	Z3 FOM or Daily	Z3 Daily Balancing	Short of Max	Z5 Purchase Max	Z5 Forward Hedge	Up to Z5 FOM	Total Fixed	Z5 Daily Protected to
November	9,580	5085	50%	2542	5571	500	-33	0	0	0	8113	8613
December	10,906	6927	50%	3463	4150	1000	2293	2293	1200	1093	9906	10906
January	12,412	7931	50%	3965	3648	1000	3799	3799	1200	2599	11412	12412
February	11,065	7033	50%	3517	4096	1000	2452	2452	1200	1252	10065	11065
March	9141	5223	50%	2612	5502	500	528	528	0	0	8113	8613

➤ April Hedge Amounts and Pricing

		Daily Volume		Monthly Volume								Executed Fixed Price	
Days	Month	Zone 3	Zone 3	Zone 3	Zone 3	NYMEX	Z3 Basis	Fuel Cost	Commodity Cost	Scheduling Fee		Total	
30	Nov-19	424	12,720			\$ 2.707	\$ (0.0400)	\$ 0.06454	\$ 0.03631	\$ 0.04000		\$ 2.808	
31	Dec-19	577	17,887			\$ 2.863	\$ (0.0400)	\$ 0.06832	\$ 0.03631	\$ 0.04000		\$ 2.968	
31	Jan-20	661	20,491			\$ 2.944	\$ (0.0400)	\$ 0.07028	\$ 0.03631	\$ 0.04000		\$ 3.051	
29	Feb-20	586	16,994			\$ 2.894	\$ (0.0400)	\$ 0.06907	\$ 0.03631	\$ 0.04000		\$ 2.999	
31	Mar-20	435	13,485			\$ 2.784	\$ (0.0400)	\$ 0.06640	\$ 0.03631	\$ 0.04000		\$ 2.887	
Master Deal 9109													
Fixed Price													
Sale to Frontier													
		Daily Volume		Monthly Volume								Executed Fixed Price	
Days	Month	Zone 5	Zone 5	Zone 5	Zone 5	NYMEX	Z5 Basis	Fuel Cost	Commodity Cost	Scheduling Fee		Total	
30	Nov-19	0	0							\$ 0.11500		\$ -	
31	Dec-19	200	6,200			\$ 2.863	\$ 0.6800	\$ -	\$ -	\$ 0.11500		\$ 3.658	
31	Jan-20	200	6,200			\$ 2.944	\$ 3.1550	\$ -	\$ -	\$ 0.11500		\$ 6.254	
29	Feb-20	200	5,800			\$ 2.894	\$ 3.0100	\$ -	\$ -	\$ 0.11500		\$ 6.019	
31	Mar-20	0	0							\$ -		\$ -	

Tracking Hedge Quotes

- ▶ Starting in April of each year, 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



Younger
Exhibit B

I/A

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

Frontier Natural Gas Company – 2019 Prudency Review

G-40, Sub 150 – TBY - Exhibit B

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.

Frontier Natural Gas Company – 2019 Prudency Review**G-40, Sub 150 – TBY - Exhibit B**

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. 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 Natural Gas Company – 2019 Prudency Review
G-40, Sub 150 – TBY - Exhibit B

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. Forward hedges will be made for:

November: 50% of Expected Average Flow at Z3
December: 50% of Expected Average Flow at Z3
January: 50% of Expected Average Flow at Z3
February: 50% of Expected Average Flow at Z3
March: 50% of Expected Average Flow at Z3

The remainder of the 8,613 capacity will be priced at the Z3 FOM and or Z3 Daily, based upon considerations of the current market prices and the most current weather forecast at the time FOM nominations are due, with a portion held for daily balancing to 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. A reasonable percentage should be hedged, while the rest of Z5 purchases should be executed with FOM pricing. 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. Each month's hedge will be entered into between the 10th and 25th of that month.

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.

Younger
Exhibit C

I/A

Frontier Natural Gas Company
 2019 Prudency Review
 G-40, Sub 150
 TBY - Exhibit C

	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19		Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20
Expected Max Flow	6,134	3,788	2,808	2,453	2,719	3,296	5,971		8,580	10,906	12,412	11,065	9,141	6,511	3,943
Expected Average Flow	3,390	2,619	2,153	1,938	2,073	2,478	3,488		5,085	6,927	7,931	7,033	5,223	3,553	2,715
1-in-30 load (from 2017 DDS)	7,304	4,703	2,441	1,897	2,247	4,090	6,471		8,489	11,792	12,964	12,152	10,272	7,304	4,703

Zone 3 Capacity

8613

	Max	Average	% Hedged	Z3 Forward Hedge	Z3 FOM or Daily	Z3 Daily Balancing	Short of Max	Z5 Purchase Max	Z5 Forward Hedge	Up to Z5 FOM	Total Fixed	Z5 Daily Protected to
November	8,580	5085	50%	2542	5571	500	-33	0	0	0	8113	8613
December	10,906	6927	50%	3463	4150	1000	2293	2293	1200	1093	9906	10906
January	12,412	7931	50%	3965	3648	1000	3799	3799	1200	2599	11412	12412
February	11,065	7033	50%	3517	4096	1000	2452	2452	1200	1252	10065	11065
March	9141	5223	50%	2612	5502	500	528	528	0	0	8113	8613

* Page 142 of more
than 100 filed in the
doct system.
item

II/17

Younger
Exhibit D

HEARTHSTONE UTILITIES, INC.
RISK COMMITTEE MEETING
MINUTES
April 4, 2019
11:30 A.M.

Activities Performed

Present were:

- Dave Cerotzke, Kevin Degenstein, Jed Henthorne and Mary Stanich
- Dan Hickman, Tyler Muzzana, Mike Zappitello, Jerry Livengood, Renee Huff, Ted Gambill, Taylor Younger and Fred Steele (by Telephone)

Orwell Natural Gas:

Mike gave the Committee a supply update for NEO and Orwell Natural Gas.

April Baseload Purchases:

	NEO	Orwell	Brainard
TCO	3,147/day	35/day	115/day
DEO	5,000/day	1,150/day	100/day
OTP		1,000/day	
TGP	135/day		

Orwell and NEO are burning off their respective imbalances with Cobra first ten days and then Orwell will re-evaluate

Blended cost per DTH

NEO	\$2.566
Orwell	\$2.620
Brainard	\$2.592

The balance of the GTS TCO storage account is 46,803/dth

Daily Price Index: TCO Appalachia \$2.485 Dominion \$2.455 and MichCon \$2.575

Oct19-Mar20 Futures: TCO (\$.292), DEO (\$0.368), MichCon, (\$0.177)

Orwell imbalances: OTP 41,556 DTH, Cobra 10,023 DTH, Spellman (689) DTH,

Brainard Imbalances: OTP (284) DTH, Cobra (527) DTH

Northeast Ohio (NEO):

- **TCO System (Columbia Transmission Co)**
 - Balance of two storage accounts is 29,809/dkt (7,218/dkt GTS & 22,591/dkt FSS)
- **Cobra Pipeline**

Younger
Exhibit G

TAI

Albuquerque Gas
Foster Meter Gas Company
Foster Meter Gas Company
G-40, Jan 20

TED - Lateral G

2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	2988	2989	2990	2991	2992	2993	2994	2995	2996	2997	2998	2999	3000
2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

Total issued for GSI Prediction \$ 1,000,000.00

Year	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500
2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	