PUBLIC UTILITIES COMMISSION OF OHIO DIVISION OF FORECASTING AND SITING

In the Matter of the Long-Term Forecast Report of Natural Gas Demand of Suburban Natural Gas Company

Case No. 09-116-GA-FOR

2009

LONG-TERM FORECAST REPORT OF NATURAL GAS DEMAND OF SUBURBAN NATURAL GAS COMPANY

David L. Pemberton, Jr., President Suburban Natural Gas Company 2626 Lewis Center Road Lewis Center, OH 43035-9206 (740) 548-2450

Dated: June 1, 2009

This is to certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business Technician <u>And</u> Date Processed <u>101109</u>



2009

LONG-TERM FORECAST REPORT FOR GAS DEMAND, GAS SUPPLY, AND FACILITY PROJECTIONS

OF

SUBURBAN NATURAL GAS COMPANY 2626 LEWIS CENTER ROAD LEWIS CENTER, OH 43035-9206

TO THE

PUBLIC UTILITIES COMMISSION OF OHIO DIVISION OF FORECASTING AND SITING

PREFACE

Suburban Natural Gas Company has prepared this Long-Term Forecast Report as required by Section 4935.04 of the Ohio Revised Code. The organization of this report is based upon the Division's Rules and Regulations contained in Chapter 4901 of the Ohio Administrative Code.

Table of Contents

2009 Special Topics Issues

- (1) Within the past two years, what specific changes have you made with respect to:
 - (a) How you forecast firm demand requirements
 - (b) Gas Supply Planning
 - (c) How you utilize interstate pipeline capacity
- (2) Please describe your company's plans to handle changes in load due to customer migration issues:
- (3) Please describe all of the (price) hedging tools that your company utilizes
- (4) Please provide a detailed, comprehensive schedule of each of your current pipeline contracts, daily/seasonal/annual entitlements, and expiration dates
- (5) Describe any significant changes in demand load centers on your distribution system (either due to significant, new/additional loads on the distribution system or relative disappearance of old loads by equipment upgrade/conversion, removal, bypass, efficiency, etc.)
- (6) Please detail and describe your plans to handle any anticipated, significant changes with the surrounding/interconnecting facilities of other utilities (e.g., those that might trigger ABN or ATR types of dockets at the PUCO)
- (7) Please itemize and detail any potential new supply sources, including additional interconnects, in the vicinity of your company's service area.
- (8) Please describe the status of any plans for exiting the merchant function.

4901:5-7-04 Gas and natural gas demand forecasts for gas distribution companies serving fifteen thousand to one hundred thousand customers.

- (A) Definitions
- (B) General Guidelines
- (C) Special Subject Area
- (D) Forecast Documentation
- (E) Demand Forecast Forms
 - (1) FG1-1 Service Area Natural Gas Demand
 - (2) FG1-3 Monthly Gas Send-Out
 - (3) FG1-4 Range of Forecasts
 - (4) FG1-5 Peak and Forecast Design Day Requirements
 - (5) FG1-6 Self-Help and Other Transported Gas

4901:5-7-05 Gas and natural gas supply forecasts for gas distribution companies serving fifteen thousand to one hundred thousand customers.

- (A) General Guidelines
- (B) Special Subject Areas
- (C) Gas and Natural Gas Supply Forecast Discussion
- (D) Projected Sources of Gas
- (E) Reliability of Gas Sources
- (F) Analysis of System Peak and Winter Season Planning
- (G) Supply Forecast Forms
 - (1) FG2-1 Gas Supplies
 - (2) FG2-2 Gas Prices
 - (3) FG2-3 Peak and Design Day Supply
 - (4) FG2-4 Natural Gas Storage Facilities
 - (5) FG2-5 Propane Facilities
 - (6) FG2-6 Other Peaking Facilities
- (H) Long-Term Strategic Supply Plan

- (1) Within the past two years, what specific changes have you made with respect to:
 - (a) How you forecast firm demand requirements
 - (b) Gas Supply Planning
 - (c) How you utilize interstate pipeline capacity

Suburban Natural Gas started working with Atmos Energy Marketing in April 0f 2007 as our Asset manager. We collectively created a plan to manage firm requirements for our customers while maximizing the value of our assets. We work together to forecast firm demand requirements by looking at the 30 year historical weather normal to determine a heating degree day forecast and hence volumes that we expect our customer base to use. Since our customer base is highly heat sensitive (mostly residential), this is an effective way to forecast our firm demand requirements

We have worked closely with Atmos to develop a gas supply plan that takes into consideration our transportation and storage assts. Simply put, in the summer time our monthly nominations for delivery include both flowing gas to the city using our transportation contracts with a focus on also filing our storage account. In the winter time our monthly nominations for delivery include both flowing gas to the city gate using transportation contracts augmented by projected storage withdrawals. Based on monthly usage, and in attempt to follow our winter storage withdrawal plan, we will augment our first of the month nomination with intra-month purchases.

Suburban has released its Columbia Gas Transmission, Columbia Gulf Transmission and North Coast Pipeline capacity to our asset manager. In return, our asset manager works to maximize the value of our interstate pipeline capacity and in return for managing those assets provides us with a discount to index and an asset management payment for capacity on our transportation contracts. Our asset ,manager uses our pipeline capacity to serve our customer needs off either Columbia Gas or North Coast.

(2) Please describe your company's plans to handle changes in load due to customer migration issues.

Suburban Natural Gas does not anticipate any changes in load due to customer migration issues.

(3) Please describe all of the (price) hedging tools that your company utilizes.

Suburban Natural Gas Risk Management Plan

Plan Overview

- Summer
 - Baseload first of month gas in the summer months and plan for storage injections nominate to the citygate and swing on storage.
 - Summer billable plan -1/7 ratable injections in the summer months and carry cost until Suburban withdraws in the winter months
 - o Buy incremental gas in the daily spot market if needed
- Winter
 - Baseload first of month gas in the winter months and plan for storage withdrawals nominate to the citygate and swing on storage
 - o Follow winter withdrawal plan and adjust based on usage for each prior month
 - o Buy incremental gas in the daily spot market if needed

Hedging Overview

- Summer
 - Hedge at least 20-40% by the end of the preceding winter
 - Buy balance at FOM index or intramonth daily
- Winter
 - o Inject ratably April to October into storage at summer pricing
 - Roughly 35-40% of winter projected usage
 - Augment storage pricing with forward hedges starting roughly 9-12 months prior to winter start
 - Roughly 25-30% of winter projected usage
 - o Buy balance at FOM index or intramonth gas daily

(4) Please provide a detailed, comprehensive schedule of each of your current pipeline contracts, daily/seasonal/annual entitlements, and expiration dates.

Attached

LEASED PIPELINE CONTRACTS COLUMBIA GAS TRANSMISSION										
	Rate	MDQ	MC	Q	SCQ	Expiration	Market			
Contract #	Schedule	Daily	Seas	onal	Annual	Date	Area			
	· · · · · · · · · · · · · · · · · · ·	·	Summer	Winter						
79265	FTS	3500				12/31/2024	67-3			
78185	FTS	3100	· · · · · · · · · · · · · · · · · · ·			3/31/2024	67-3			
75378	FTS	1790		·	;	10/31/2023	67-3			
73315	FTS	110				10/31/2014	67-3			
73188	FTS	500	1	· · · · · · · · · · · · · · · · · · ·	1	10/31/2014	67-3			
							67-1			
38101	FTS	5134	-		:	10/31/2014	67-3			
		· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · · · · · ·	·····			
81679	SST		1900	3800		4/1/2025	67-3			
81292	SST		558	1116		3/31/2025	<u>67-1</u>			
80842	SST		967	1935		3/31/2025	67-1			
38031	SST		1683	3366		3/31/2014				
	: • •• •• •••••••••			·	<i></i>					
81680	FSS			3800	216,600	4/1/2025				
81293	FSS			1116	63,612	3/31/2025				
80843	FSS		• • - • - • • • •	1935	102,157	3/31/2025				
53001	FSS		· • • • - · · · · · · · · · · · · · · ·	3366	168,285	3/31/2014				

Gulf	······································	LEASE	D PIPELINE CONTR	ACTS		
Contract #	Rate Schedule	MDQ Daily	MDQ Seasonal	SCQ Annual	Expiration Date	Market Area
			Summer Winter	· · · · · · · · · · · · · · · · · · ·	······	
78852	FTS-1	3183		··· ·	10/31/2024	
75379	FTS-1	1837			3/31/2023;	
71202	FTS-1	625			10/31/2014	
38410	FTS-1	4056		· · · · · · · · · · · · · · · · · · ·	10/31/2014	

LEASED PIPELINE CONTRACTS NorthCoast								
Date	Rate Schedule	MDQ Daily	MD Sease	Q onal	SCQ Annual	Expiration Date	Market Area	
			Summer	Winter				
Nov. 1, 2008	FTS	3000	······			10/31/2018	67-3	
Nov. 1, 2010		4500						
Nov. 1, 2011		6000						
			!			; :		
	/				1			

	NATU	IRAL GAS	S CONTRACTS			
Columbia Gas of Ohio - Lazelie						
	Rate	MDQ	MDQ	SCQ	Expiration	Market
Contract #	Schedule	Daily	Seasonal	Annual	Date	Area
			Summer Winter			•• ••
Agreement for the Purchase & Sale	of Natural Gas	5				
		3000)!	18,000	As long as	67-3
· · · · · · · ·					Suburban	
				;	meets	···· ·
	• • • • • • • • • •				its obligation	
			the second s		1	

	NATUR	AL GAS CO	DRTRACTS			
Columbia Gas of Ohio - Big Waln	ut Doto	54DO	MDO	5 SCO	Guniantian	Binankaá
Contract #	Schedule	Daily	Seasonal	Annual	Date	Area
	· · <u> </u>		Summer Winter	* · ·	· · · · · · · · · · · · · · · · · · ·	
Line Extension & Revenue Guarante	e Agreement for S	Sale of Natu	iral Gas			••••
2009		2400		163,800	10/1/2013	67-3
2010	· · · · · · · · · · · · · · · · · · ·	2400		194,400		
2011	· · · · ·	2400		226,800	• • • • • • •	
2012		2400		262 200		
& Beyond	· · · · · · · · · · · · · · · · · · ·	2400			· · · · · · · · · · · · · · · · · · ·	

.

Based Contract for Sale & Purchase of Natural Gas

Atmos Energy	4/1/2007	3/1/2009
Atmos Energy Extension	11/1/2008	3/31/2012

(5) Describe any significant changes in demand load centers on your distribution system (either due to significant, new/additional loads on the distribution system or relative disappearance of old loads by equipment upgrade/conversion, removal, bypass, efficiency, etc.)

Southern System

- Northeast quadrant of Polaris
- State Rt 36/37 east of Delaware south and north side of road

Northern System

• Possible abandonment/loss of lease of Deshler System in NW Ohio

(6) Please detail and describe your plans to handle any anticipated, significant changes with the surrounding/interconnecting facilities of other utilities (e.g., those that might trigger ABN or ATR types of dockets at the PUCO).

Suburban Natural Gas currently has Case 08-0947-GA-ABN on the docket at PUCO regarding 5 villages in NW Ohio referred to as the Deshler line.

(7) Please itemize and detail any potential new supply sources, including additional interconnects, in the vicinity of your company's service area.

Future interconnect with COH North of Orange Road, East of Conrail tracks. Anticipated with the next three to five years.

(8) Please describe the status of any plans for exiting the merchant function.

Suburban Natural Gas does not currently have a plan for exiting the merchant function. However, We are currently reviewing Dominion East Ohio, Columbia Gas of Ohio, Vectren and Duke Energy in their exiting the merchant function. Assuming those programs are implemented successfully we would at that point address Suburban's intent and timelines to exit the merchant function. Obviously, Suburban would consult with PUCO staff prior to making any final decisions regarding the exiting of the merchant function.

- (A) Definitions. Unless otherwise specified, all terms used in Chapter 4901:5-7 of the Administrative Code are the same as those found in the fourth edition "Glossary For The Gas Industry" published by the planning and analysis group of the "American Gas Association." The following definitions apply to this chapter:
 - (1) "Energy-price relationships" means the calculated or observed effects on gas demand resulting from changes in the customer price of gas or other fuels. It consists of both energy conservation effects which reduce customer energy use directly and effects which cause customers to switch to or from utility-provided gas.
 - (2) "Forecast year," "year of the forecast," or "year zero" means the year in which the forecast is filed.
 - (3) "Energy conservation" means the effect upon gas demand resulting from customer adoption and use of measures, standards, equipment, or techniques designed, at least in part, to decrease gas consumption or to increase efficiency of gas use. Energy conservation may include the result of increases in price, but does not include price-induced fuel switching.
 - (4) "Self-help gas and other transported gas" means natural or synthetic gas owned by or acquired on behalf of an end-user or owned by another person which was developed independently or acquired from a third party, but which requires the use of one or more company or utility to transport the gas to the end-user.
 - (5) "Forecast period" means year zero through year ten.
 - (6) "Reporting period" means year minus five through year ten.
 - (7) "Service area" means the geographic area within Ohio in which the company renders service to wholesale and retail consumers of gas.
 - (8) "Fuel switching" means the substitution of one energy source for another in a particular end use or process, as a result of changing relative prices or technologies.

- (B) General guidelines. The following guidelines shall be used in the preparation of the demand forecast:
 - (1) The demand forecast must be based upon independent analysis by the reporting utility.
 - (2) The demand forecast may be based on those forecasting methods which yield the most useful results to the utility.
 - (3) Persons filing forecast reports under this rule may use common methodologies and participate in joint hearings.
 - (4) Where the required data have not been calculated directly, relevant conversion factors shall be displayed.
 - (5) All gas volumes shall be reported at 14.73 psia.

Suburban Natural Gas independently prepares its gas demand forecast using actual usage data that has been adjusted to normal weather conditions.

Estimated data includes 2009 to the year 2019. The data contains projected normal monthly and peak day requirements for all classes of customers in the company's service area.

- (C) Special subject areas.
 - (1) The following matters shall specifically be addressed:
 - (a) A description of the extent to which the reporting utility coordinates its load forecasts with those of other systems such as affiliated systems in a holding company group; or other neighboring systems and, if the reporting utility is a combination utility, a description of the coordination of its gas load forecast with its electric load forecast.

Suburban Natural Gas does not coordinate its load requirements with any other systems.

(b) A description of the manner in which such forecasts are coordinated, and any problems experienced in efforts to coordinate load forecasts.

See above.

(c) A brief description of any computer modeling, demand forecasting, polls, surveys, or data-gathering activities used in preparation of the forecast.

Suburban Natural Gas uses degree day modeling and historical data to prepare load forecasts.

- (2) Energy conservation:
 - (a) A description of, and justification for, the methodologies employed for determining energy conservation shall be included.
 - No methodologies used to determine energy conservation.
 - (b) Programs and policies of the reporting utility which support energy conservation shall be described.

Suburban Natural Gas promotes energy conservation such as higher efficiency furnaces, better insulation and other energy saving methods found on the PUCO's website and the Department of Energy's website.

(c) To the extent possible, identify changes during the forecast period due to energy conservation for:

- (i) Annual usage by major customer class.
- (ii) System winter season usage.
- (iii) System peak day usage.

No changes identified

(d) To the extent possible, identify changes during the forecast period in energy demand due to market penetration of equipment or techniques designed to produce energy conservation.

No changes identified

- (3) Energy-price relationships:
 - (a) To the extent possible, identify changes during the forecast period in energy demand by major customer class and system peak due to customer energy prices. Identify and describe how such changes are accounted for in the forecast.

No changes identified

(b) Describe the methodologies for determining such energy-price relationships, including justification for the methodologies employed.

No methodologies implemented.

- (4) Fuel switching:
 - (a) To the extent possible, identify changes during the reporting period in gas demand by major customer class due to fuel switching. Include where practicable the specific type of application for which fuel switching is expected and associated volumes in each customer class expected to switch and how such changes are accounted for in the forecast.

No fuel switching anticipated

(b) Describe the methodologies for determining such fuel switching, including justification for the methodologies employed.

No methodologies implemented

(5) Self-help and other transported gas:

- (a) To the extent possible, identify changes during the reporting period in gas demand by major customer class due to customer obtained self-help gas or other transported gas. Include a description of the company's policy toward the transportation of selfhelp gas.
- No significant changes
- (b) Describe the methodologies for determining the volumes described above; including the justification for the methodologies employed.

Suburban Natural Gas only has one commercial account that utilizes transportation.

(c) Discuss the effect on gas demand of current state and federal policies toward the transportation of natural gas.

No effect observed

(6) Textual material not specifically required but of importance to the demand forecast of the reporting utility may be included in an appropriate section.

- (D) Forecast documentation. The purpose of the documentation section of the report is to permit a thorough review of the forecast methodology and test its validity. The documentation when combined with the data provided under paragraph (D)(3)(b) of this rule should be thorough enough to permit replication of the forecast results by the commission or other parties who have prima facie expertise in forecasting. The components of the forecast documentation shall include:
 - (1) Forecast methodology. The reporting utility shall specify in detail for both the load and peak forecast the methodology employed, including:
 - (a) Overall methodological framework chosen.

Suburban Natural Gas uses a usage model based on heating degree days, historical usage, and informed judgement

(b) Specific analytical techniques used, their purpose, and the forecast component to which they are applied.

The usage model predicts annual usage for each class of customer. The model is used to primarily determine the load requirements for heating related purposes.

(c) The manner in which specific techniques are related in producing the forecast.

Customer usage is forecast based on non-heating and heating load.

- (d) Where statistical techniques have been used:
 - (i) All relevant equations.
 - (ii) The results of appropriate statistical tests.
 - (iii) A description of the technique.
 - (iv) The reason for choosing the technique.
 - (v) Identification of significant computer software used.

Suburban Natural Gas uses heating degree day information and historical usage to determine the load requirements on an annual basis and on a monthly basis. The calculation is made for residential, commercial and industrial accounts.

(e) An explanation of how interruptibles, curtailables and other non-firm requirements are forecast, how they are treated in the total forecast, and an identification of demand volumes subject to interruption or curtailment and other non-firm demand.

No interruptibles forecast

- (f) A brief description of any alternative methodologies attempted and a discussion of the results.
- No alternative methodologies used
- (g) An identification of customer usage factors and a description of how they are used within the forecast.

(h) Where the methodology for any major customer class has changed significantly from the previous year, a discussion of the rationale for the change.

No significant change

(i) Where surveys are used, a display of:

- (i) Assumptions provided to those surveyed, if any (e.g., gas price forecasts,
- price forecasts of alternate fuels).
- (ii) Copies of any forms used in the survey.
- (iii) Survey technique used,

No surveys used

- (2) Assumptions and special information. The reporting utility shall:
 - (a) For each significant assumption made in preparing the forecasts include a discussion of the basis for the assumption and the impact it has on the forecast results. Give sources of the assumption if other than the reporting utility.

No significant assumptions were made in preparing this forecast

(b) Specifically address each of the following:

(i) Current and future relative prices and availability of conventional fuels by major customer class for the forecast period and its effect on the forecast.

Not addressed

(ii) Current and future relative prices and availability of alternative energy sources and technologies (including but not limited to solar, wind, waste, and wood) for the forecast period and its effect on the forecast.

Not addressed

(iii) Pricing policy, including:

- (a) Alternative rate structures.
- (b) Predicted consumption effects for each customer class.
- (c) Predicted natural gas price behavior.

Not addressed

(iv) Economic and demographic trends within the utility's service area.

Not addressed

(v) Assumed inflation rate.

Not addressed

(vi) Anticipated penetration of cogeneration technology in each customer class and its likely effect on demand for natural gas.

Not addressed

(vii) Residential customers, including:

(a) Number of year-end residential customers disaggregated by heat and non-heat for the past five years, the current year and the number anticipated for the next ten years.

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Residential	11988	13239	14014	14461	14749	15000	15250	15500	15750
Commercial	937	955	966	996	1022	1050	1075	1100	1125
Industrial	15	16	16	15	15	15	15	15	15
	2013	2014	2015	2016	2017	2018	2019		
Residential	16000	16250	16500	16750	17000	17250	17500		
Commercial	1150	1175	1200	1225	1250	1275	1300		
Industrial	15	15	15	15	15	15	15		

(b) Specific data and sources of population and household data upon which customer projections are based.

Based on historical data from each customer class.

(c) Where official state population projections are not used, an explanation of why alternative population projections are employed.

Based on historical growth patterns in service area.

(viii) A listing of all customer groups included in the "other" category on form FG1-1.

None

(ix) Other assumptions critical to forecast techniques or company operating procedures.

No other assumptions

(x) To the extent possible, the impact of changes in appliance saturation on total residential demand and on usage per residential customer.

Not addressed

(xi) For years minus five through minus one the reporting utility shall provide weather-adjusted (normalized) sales volumes, by major customer class and total sales, with a brief description of how the adjustments were obtained.

	2004	2005	2006	2007	2008
Residential	1120	1217	1135	1255	1304
Commercial	398	433	401	455	465
Industrial	26	29	24	32	31

The major customer classes listed below were normalized by adjusting actual consumption to normal degree days.

(c) Identify special information bearing on the forecast (e.g., the existence of a major planned industrial expansion program in the area of service).

No special information bearing on the forecast

- (3) Data base documentation. The responsibilities of the reporting utility with regard to its forecast data base are as follows.
 - (a) The reporting utility shall provide:

(i) A brief description of all data sets used in making the forecast, both internal and external, input and output, and a citation to the sources.

Actual historical billing data used PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

(ii) The reasons for the selection of the specific data base used.

Readily available

(iii) A clear identification of any adjustments made to raw data in order to adapt them for use in the forecast, including for each adjustment, to the extent practicable:

- (a) The nature of the adjustment made.
- (b) The basis for the adjustment made.
- (c) The magnitude of the adjustment.

No adjustments made.

(b) The reporting utility shall be prepared to provide to the commission, on request:
(i) Copies of all data sets used in making the forecasts, including both raw and adjusted data, input and output data, and complete descriptions of any mathematical, technical, statistical, or other model used in preparing the data.
(ii) A narrative explaining the data sets, and any adjustments made with the data to adapt it for use in the forecast.

- (E) Demand forecast forms. The demand presentation shall include the following elements presented on the indicated forms supplied by the commission.
 - (1) Service area natural gas demand: actual and forecast Ohio service area natural gas demand (MMCF/year) displayed by sector, as indicated on form FG1-1.

Completed

(2) Monthly gas sendout: a month-by-month forecast of gas sendout in the service area for the current year and the following two years, as indicated on form FG1-3 (these volumes shall conform to the most likely growth scenario).

Completed

(3) Range of forecasts: a range of forecasts provided on form FG1-4 for natural gas sales volumes by residential, commercial, and industrial sectors and total sales volumes. The range of forecasts shall consist of, at a minimum, three scenarios (highest, lowest, and most likely growth). The methodology for the range forecast shall be determined by the reporting utility and may be based on confidence intervals, different assumptions, or whatever techniques the reporting utility finds appropriate.

Completed

(4) Peak and forecast design day requirements: historical peak requirements and forecast design day requirements (MMCF) as indicated on form FG1-5.

Completed

(5) Self-help and other transported gas: historical and forecast self-help gas volumes as transported and anticipated to be transported by the reporting utility as indicated on form FG1-6.

Completed

Form FG1-1 HISTORICAL AND FORECAST SERVICE AREA ANNUAL GAS DEMAND (Part 1) Units: MMCF/YEAR

		<u> </u>	· ··· -	<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u></u>	r			<u> </u>	<u> </u>							
10	9	8	7	6	ഗ	4	ω	2		0	느	-2	င်္ပ	4	பு						
2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	YEAR					
1547	1525	1503	1481	1459	1437	1415	1393	1370	1348	1326	1304	1255	1135	1217	1120	SALE	RESIDENTAIL				
591	580	569	557	546	535	523	512	500	489	478	465	455	401	433	398	SALES	COMMERCIAL				2
31	31	31	31	31	31	31	31	31	31	31	31	32	24	29	26	SALES	INDUSTRIAL				ယ
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	UTILITIES	ELECTRIC	SALES TO			4
2169	2136	2103	2069	2036	2003	1969	1936	1901	1868	1835	1800	1742	1560	1679	1544	CUSTOMERS	ULTIMATE	SALES TO			տ
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	co	NATURAL GAS	AND SMALL	MUNICIPALS	RESALE TO	6
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	FOR RESALE	OTHER SALES				7
2169	2136	2103	2069	2036	2003	1969	1936	1901	1868	1835	1800	1742	1560	1679	1544	TOTAL SALES					8

Form FG1-1 HISTORICAL AND FORECAST SERVICE AREA ANNUAL GAS DEMAND (Part 2) Units: MMCF/YEAR

10	6	8	7	6	ഗ	4	ω	2		0	-1	-2	-3	4	ե					
2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	YEAR				
2169	2136	2103	2069	2036	2003	1969	1936	1901	1868	1835	1800	1742	1560	1679	1544	TOTAL SALES				8
2	2	2	2	2	2	2	2	2	2	1	1	-1	7	_	1	USE	COMPANY			6
2171	2138	2105	2071	2038	2005	1971	1938	1903	1870	1836	1801	1743	1561	1680	1545	CONSUMPTION	TOTAL			10
0	0	0	0	0	0	0	0	0	0	0	0	D	0	0	0	TO STORAGE	INJECTIONS	NET		11
0	0	0	0	0	0	0	0	0	0	0	26	37	42	31	19	UFG	LOSSES AND			12
2171	2138	2105	2071	2038	2005	1971	1938	1903	1870	1836	1827	1780	1603	1711	1564	DEMAND	TOTAL			13
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	INTERRUPTBLE	SUM OF			14
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TO STORAGE	INJECTIONS	TOTAL		15
0	0	0	0	0	0	0	0	0	Q	0	0	0	0	0	0	STORAGE	01	INJECTIONS	TOTA	16

Form FG1-3 MONTHLY GAS SENDOUT Units: MMCF/YEAR

	YEAR 0	YEAR 1	YEAR 2
JANUARY	342	248	354
FEBRUARY	285	290	295
MARCH	227	231	235
APRIL	139	141	144
	······································	······································	
MAY	60	61	62
JUNE	37	38	
	37	38	39
AUGUST	37	38	39
SEPTEMBER	42	43	44
			400
OCTOBER	122	124	126
NOVEMBER	208	212	216
DECEMBER	299	304	309

Form FG1-4 RANGE OF DEMAND FORECAST Units: MMCF/YEAR

ļ	9 2018	8 2017	7 2016	6 2015	5 2014	4 2013	3 2012	2 2011	1 2010	0 2009	YEAR		
1392	1373	1353	1333	1313	1293	1274	1254	1233	1213	1193	LOWEST		RESID
1547	1525	1503	1481	1459	1437	1415	1393	1370	1348	1326	LIKELY	MOST	ENTIAL S.
1702	1678	165 <u>3</u>	1629	1605	1581	1557	1532	1507	1483	1459	HIGHEST		ALES
532	522	512	501	491	482	471	461	450	440	430	LOWEST		COMM
591	580	569	557	546	535	523	512	500	489	478	LIKELY	MOST	ERCIAL S
650	638	626	613	601	589	575	563	550	538	526	HIGHEST		ALES
28	28	28	28	28	28	28	28	28	28	28	LOWEST		INDU
31	31	31	31	31	31	31	31	31	31	31	LIKELY	MOST	STRIAL SA
34	34	34	34	34	34	34	34	34	34	34	HIGHEST		ALES
1952	1922	1893	1862	1832	1803	1772	1742	1711	1681	1652	LOWEST		TC
2169	2136	2103	2069	2036	2003	1969	1936	1901	1868	1835	LIKELY	MOST	DTAL SALE
2386	2350	2313	2276	2240	2203	2166	2130	2091	2055	2019	HIGHEST		S

Form FG1-5 HISTORICAL PEAK AND FORECAST DESIGN DAY DAY REQUIREMENTS Units: MMCF/YEAR

																						- ···
	10	9	8	7	6	თ	4	ω	2		0	<u>-</u>	2	ப்	4	փ						
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	YEAR					
	21.1	21.1	21.1	20.4	20.4	20.4	19.7	19.7	18.9	18.9	18.9	12.7	13.3	10.8	11.7	11.7	SALE	RESIDENTAIL				
	7.4	7.4	7.4	7.2	7.2	7.2	6.9	6.9	6.7	6.7	6.7	4.5	4.7	3.8	4.1	4.1	SALES	COMMERCIAL				2
	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	SALES	INDUSTRIAL				ω
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	UTILITIES	ELECTRIC	SALES TO			4
	29.0	29.0	29.0	28.0	28.0	28.0	27.0	27.0	26.0	26.0	26.0	17.5	18.3	14.9	16,1	16.1	CUSTOMERS	ULTIMATE	SALES TO			Ċ
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	NATURAL GAS	AND SMALL	MUNICIPALS	RESALE TO	თ
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	FOR RESALE	OTHER SALES				7
	29.0	29.0	29.0	28.0	28.0	28.0	27.0	27.0	26.0	26.0	26.0	17.5	18.3	14.9	16.1	16.1	SALES	TOTAL				00
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	FOR GAS	UNACCT				9
	29.0	29.0	29.0	28.0	28.0	28.0	27.0	27.0	26.0	26.0	26.0	17.5	18.3	14.9	16.1	16.1	TOTAL					10
1						_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_

Design Day based on 20 below zero F

Form FG1-6 SUPPLY AND DISPOSITION OF SELF-HELP AND OTHER TRANSPORTED VOLUMES Units: MMCF/YEAR

						_																	
10	9	ω	7	თ	σ	4	ω	2	-	0	占	ż	ሪ	4	փ								
2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	YEAR							
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CUSTOMERS	FOR ON-LINE	RESPONDENT	TRANSPORTED	GAS	OHIO PRODUCED		-1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CUSTOMERS	FOR ON-SYSTEM	RESPONDENT	FROM OTHER	TRANSPORTED	GAS	OHIO PRODUCED	2
55	55	55	55	55	55	55	55	55	55	55	54	46	53	53	125	CUSTOMERS	FOR ON-SYSTEM	BY RESPONDENT					ω
55	55	55	55	55	55	55	55	55	55	55	54	46	53	53	125	CUSTOMERS	FOR ON-SYSTEM	BY RESPONDENT					4
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	RESPONDENT	OFF-SYSTEM BY	TRANSPORTED	OHIO PRODUCED				ъ
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	CUSTOMERS	FOR OFF-SYSTEM	BY RESPONDENT					g
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.	0	CUSTOMERS	FOR OFF-SYSTEM	BY RESPONDENT					7
55	55	55	55	55	55	55	55	55	55	55	54	46	53	53	125	TRANSPORTED	TOTAL VOLUMES						8

(A) General guidelines. The supply estimates used in these forecasts must be based upon the reporting utility's independent analysis of alternative sources of gas as well as its current sources. When data is based on material received from current or prospective suppliers, the reporting utility must show that it has made an independent review of such data and arrived at its own analysis of the probable future availability and price of gas from the source in question.

The supply estimates used in this forecast are based upon Suburban Natural gas Company's independent analysis of alternative sources of gas as well as the current sources.

The information shown on the forms may not be consistent with other reports on file with the Public Utilities Commission of Ohio (PUCO). Any differences between data previously filed and that shown should be attributed to timing of the forecast.

(B) Special subject areas.

- (1) The forecast shall contain a copy of the most recent annual report to shareholders of the reporting utility and of any parent company of the reporting utility. A photocopy is acceptable.
- (2) One completed copy of securities exchange commission form 10K, "Annual Report to the Securities Exchange Commission," shall be filed at the time it is available as part of the reporting utility's annual forecast filing. If the reporting utility does not file such a form and a comparable form is prepared by the parent company, then the parent company's form shall be filed at the time it is available as part of the annual forecast filing.
- (3) Compatibility with other filings. If there are differences between data in the forecast report and similar actual or forecast data in other forms filed with the commission (e.g., federal energy regulatory commission form 2), the reporting utility shall note and explain any discrepancies.
- (4) The forecast shall contain a description of the reporting utility's policies and activities involving the procurement of Ohio gas, the impact of such procurement upon the reliability of the reporting utility's gas supply, and the compatibility of such policies and activities with a least-cost procurement plan.

Suburban Natural Gas utilizes Atmos Energy Marketing as our asset manager. Atmos has proven to be a cost effective reliable source.

- (C) Gas and natural gas supply forecast discussion. A narrative shall be prepared which includes a general description of the methods and procedures used to develop the reporting utility's forecast of:
 - (1) Gas supply, by source.
 - Gas is procured from Atmos Energy
 - (2) Gas supply prices, by source.

Suburban Natural Gas Risk Management Plan

Plan Overview

- Summer
 - Baseload first of month gas in the summer months and plan for storage injections nominate to the citygate and swing on storage.
 - \circ Summer billable plan 1/7 ratable injections in the summer months and carry cost until Suburban withdraws in the winter months
 - o Buy incremental gas in the daily spot market if needed
- Winter
 - Baseload first of month gas in the winter months and plan for storage withdrawals nominate to the citygate and swing on storage
 - o Follow winter withdrawal plan and adjust based on usage for each prior month
 - o Buy incremental gas in the daily spot market if needed

Hedging Overview

- Summer
 - o Hedge at least 20-40% by the end of the preceding winter
 - o Buy balance at FOM index or intramonth daily
- Winter

0

- Inject ratably April to October into storage at summer pricing
 - Roughly 35-40% of winter projected usage
- Augment storage pricing with forward hedges starting roughly 9-12 months prior to winter start
 - Roughly 25-30% of winter projected usage
- o Buy balance at FOM index or intramonth gas daily
- (3) Natural gas storage facilities.

Per TCO contract

(D) Projected sources of gas. A narrative shall be prepared which includes the following.

- (1) A description of the project sources of gas for the forecast period. This description shall include the following:
 - (a) A list of the projected sources of gas for the forecast period.

Atmos Energy

(b) A description of the role of company-owned gas in the future supply mix.

N/A

- (c) A description of the anticipated use of storage facilities in the future supply mix.
- Per TCO contract
- (d) The anticipated use of firm and interruptible transportation to obtain gas for system supply and the effect of state and federal policies toward the transportation of natural gas on the reporting utility's supply mix.

Gas demand will be met through use of firm transportation, storage and market purchases through Atmos Energy.

(2) A description of those factors which may have an impact on the reporting utility's projected natural gas supplies and its future construction of additional facilities, including, but not limited to, interconnections with alternate supplies.

Suburban Natural Gas does not anticipate any significant impact on the reliability of its natural gas supply.

(E) Reliability of gas sources. A narrative shall be prepared which includes the following:

(1) The reporting utility's working definition(s) of gas supply reliability.

Supply reliability is access to pipelines, storage, producers, and marketers who can provide long-term firm supply.

(2) A description of the methods used by the reporting utility to quantitatively or qualitatively measure gas supply reliability.

Historical experience

(3) The reliability of gas sources over the past five years and the anticipated reliability of each of the reporting utility's gas sources over the forecast period.

Suburban Natural Gas has not experienced any difficulties in gas reliability over the past five years

(F) Analysis of system peak and winter season planning. The reporting utility shall provide an analysis of its ability to meet peak requirements under design weather conditions throughout the forecast period and shall also provide a description of supply projections for meeting winter season requirements.

Suburban Natural Gas contracts from sources that are considered to be most reliable for base load gas demand. Suburban utilizes its storage contract with TCO to meet seasonal requirements.

- (G) Supply forecast forms. The supply presentation shall include the following elements presented on the indicated forms supplied by the commission.
 - (1) Gas supplies: actual and forecast gas supply volumes (MMCF/year) by source, as indicated in form FG2-1.

Completed

(2) Gas prices: actual and forecast gas supply prices (annual average \$/MCF) by source, as indicated in form FG2-2.

Completed

(3) Peak and design day supply: historical and forecast peak day supplies (MMCF) by source, as indicated in form FG2-3.

Completed

(4) Natural gas storage facilities: a list of wholly or jointly owned or leased storage facilities, existing and planned over the forecast period, as indicated in form FG2-4.

Completed

(5) Propane facilities: a list of existing facilities and those planned over the forecast period, as indicated in form FG2-5.

Completed

(6) Other peaking facilities: a list of other sources of peaking gas supplies not included in paragraphs (G)(4) and (G)(5) above, as indicated in form FG2-6.

Completed

Form FG2-1 ANNUAL GAS SUPPLY Units: MMCF/YEAR

r		_	<u> </u>	<u> </u>	<u> </u>	-	.	r —			1		,	<u> </u>		r	
10	9	ω	7	თ	ປາ	4	ω	2	-	0	<u>ل</u>	ż	4	4	ပုံ		
2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	YEAR	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	LONG-TERM INTERSTATE SUPPLY	ح
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SPOT MARKET INTERSTATE SUPPLY	2
2171	2138	2105	2071	2038	2005	1971	1938	1936	1870	1836	1827	1780	1603	1711	1564	ALL OTHER INTERSTATE SUPPLY	ω
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	OHIO	4
0	0	0	0	a	٥	0	0	0	0	0	ο	0	0	D	0	PROPANE	ហ
0	0	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	SNG	თ
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	LNG	7
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	OTHER	œ
2171	2138	2105	2071	2038	2005	1971	1938	1936	1870	1836	1827	1780	1603	1711	1564	TOTAL	Q
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NET WITHDRAWALS FROM STORAGE	10
2171	2138	2105	2071	2038	2005	1971	1938	1936	1870	1836	1827	1780	1603	1711	1564	TOTALS SUPPLIES	- -

....

Form FG2-2 ANNUAL SUPPLY PRICES Units: \$/MCF

····-	—			-	۱ <u> </u>	. -		-	_	_		r –	— —				
10	9	8	7	 0	თ	4	ω	2		0	느	\$	မံ	4	Υ		
2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	YEAR	
0	0	0	D	0	0	ο	0	0	0	o	0	0	0	0	0	LONG-TERM INTERSTATE SUPPLY	-
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SPOT MARKET INTERSTATE SUPPLY	2
10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.15	8.11	7.94	8.63	6.03	ALL OTHER INTERSTATE SUPPLY	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	OHIO	4
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PROPANE	ບ
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SNG	ი
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ENG	7
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	OTHER	8
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	TOTAL	6
0	0	0	0	0	0	ο	0	0	0	0	0	0	0	0	0	WITHDRAWALS FROM STORAGE	10
10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.15	8.11	7.94	8.63	6.03	TOTALS SUPPLIES WACOG	11

Form FG2-3 HISTORICAL PEAK DAY AND FORECAST DESIGN DAY SUPPLY Units: MMCF/DAY

															_					
	10	9	8	7	6	თ	4	ω	2	-	0		- N	ώ	4	պ		_		
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	YEAR			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SUPPLY	LONG-TERM		-
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SUPPLY	MARKET	SPOT	N
	18.8	18.8	18.8	17.8	17.8	17.8	16.8	16.8	15.8	15.8	15.8	7.2	12.7	11.4	11.5	13.7	INTERSTATE SUPPLY	ALL OTHER		ω
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PRODUCTION	•		4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	PROPANE			ა
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	SNG			6
	0	0	0	ο	0	0	0	0	0	0	0	0	0	0	0	0	LNG			 7
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	OTHER			8
	18.8	18.8	18.8	17.8	17.8	17.8	16.8	16.8	15.8	15.8	15.8	7.2	12.7	11.4	11.5	13.7	TOTAL REQUIREMENTS			9
	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.3	6.1	3.4	4.6	2.4	WITHDRAWALS	NET		10
	29.0	29,0	29.0	28.0	28.0	28.0	27.0	27.0	26.0	26.0	26.0	17.5	18.8	14.8	16.1	16.1	SUPPLIES			11
•								_												

Projected Peak/Design is based on -20 degrees F

FORM FG-2-4 EXISTING AND PROPOSED STORAGE FACILITIES

Storage Gas is provided through TCO Contract

RESERVOIR NAME	LOCATION	CUSHION BASE GAS	CAPACITY WORKING GAS	TOTAL	COMPLETION DATE
Leased Storage					
Contract #			SCQ Annual Dth		Expiration Date
81680			216,600		4/1/2025
81293			63,612		3/31/2025
80843			102,157		3/31/2025
53001			168,285		3/31/2014

FORM FG-2-5 EXISTING AND PROPOSED PROPANE FACILITIES (GALLONS)

		CAPACITY	
	LOGATION		
NONE			
NONE			

FORM FG-2-6 OTHER PEAKING FACILITIES

FACILITY NAME	LOCATION	CAPACITY	COMPLETION DATE
NONE			

(H) The reporting utility shall independently develop a long-term strategic supply plan for the purpose of assisting it in operating within a changing natural gas industry environment. The long-term strategic supply plan shall be structured in a manner which provides the most useful results to the utility.

Suburban Natural Gas utilizes its transportation and storage contracts to assure appropriate delivery of gas to meet customer demands.

To meet anticipated growth requirements, Suburban will secure new transportation, storage and access to new interconnects as necessary.

CONTENT STATEMENT

Pursuant to Ohio Administrative Code Section 4901:5-1-03(d), I hereby certify that I am responsible for the filing of this Long-Term Forecast Report and that the information contained herein is true and correct to the best of my knowledge and belief.

David L. Pemberton, Jr., President Suburban Natural Gas Company

CERTIFICATE OF SERVICE

I hereby certify that the requirements of Ohio Administrative Code Section 4901:5-1-03 will be met, and copies of the foregoing Long-Term Forecast Report of Natural Gas Demand of Suburban Natural Gas Company have been filed with the county libraries listed on the attached list by regular U.S. mail, postage prepaid, this 1st day of June, 2009.

David L. Pemberton, Jr., President Suburban Natural Gas Company

Delaware County Delaware Public Library 84 E. Winter Street Delaware, OH 43015

1.1.1

Hancock County Findlay-Hancock County Public Library 206 Broadway Findlay, OH 45840

Henry County Napoleon Public Library 310 W. Clinton Street Napoleon, OH 43545 Lucas County Lucas County Public Library 325 North Michigan Street Toledo, OH 43604

Marion County Marion County Public Library 445 E. Church Street Marion, OH 43302

Wood County Wood County District Public Library 251 N. Main Street Bowling Green, OH 43402